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# Undergraduate

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## Equal Employment Opportunities Statement

California Lutheran University admits qualified students of any race, color, gender, sexual orientation, religion, national or ethnic origin, marital status, disability, medical condition, or veteran status to all of the rights, privileges, programs and activities generally accorded or made available to students at the university. It does not discriminate on the basis of race, color, gender, sexual orientation, religion, national and ethnic origin, marital status, disability, medical condition, or veteran status in the administration of its educational policies, admissions policies, scholarship and loan programs and athletic and other university administered programs. California Lutheran University will maintain a policy of non-discrimination for students in compliance with all current and future federal regulations.

The information provided in this catalog reflects an accurate picture of California Lutheran University at the time of publication. The University reserves the right to make necessary changes in procedures, policies, calendar, curriculum and costs.

## Admission Office

60 West Olsen Road #1350  
Thousand Oaks, CA 91360-2700  
805-493-3135  
877-CLU-FORU (258-3678)  
FAX 805-493-3114  
E-mail: [cluadm@callutheran.edu](mailto:cluadm@callutheran.edu)  
[www.callutheran.edu](http://www.callutheran.edu)

## President's Message

The “college years” can be one of the most formative and satisfying stages of life, as students make lasting friendships, find partners, choose careers, affirm values and explore fundamental questions about their identity and purpose. All of us at CLU – faculty, administrators and staff – wish you success and joy throughout your college career.

Setting high academic standards and providing opportunities for real-world learning experiences, we’re dedicated to guiding students to discover and live their purpose.

In 1959 our first benefactor, Richard Pederson, gave his beautiful ranch to be the foundation of a Southern Californian college rooted in the legacy of Lutheran higher education. This legacy insists on the free and rigorous pursuit of truth while seeking the moral and spiritual development of every student.

The University delivers its outstanding academic and professional programs within a culture of openness, inclusion and respect for the planet. At CLU, you will address major global challenges, explore the issues of faith and reason, cross intellectual boundaries and gather tools for critical thinking. You’ll set out on a path toward greater confidence about who you are and what you can accomplish.

We invite you to discover your purpose with us.

Chris Kimball, Ph.D.

President

*California Lutheran University is a diverse scholarly community dedicated to excellence in the liberal arts and professional studies. Rooted in the Lutheran tradition of Christian faith, the University encourages critical inquiry into matters of both faith and reason. The mission of the University is to educate leaders for a global society who are strong in character and judgment, confident in their identity and vocation, and committed to service and justice.*

## University Profile

### Emphasis on High Academic Achievement

California Lutheran University provides a challenging academic environment with emphasis on high achievement through personalized learning. All aspects of the University – distinguished faculty, ideal location, beautiful campus, diverse student body, value-centered education and commitment to personalized attention – contribute to a vibrant learning community.

CLU, with a population of more than 2,700 undergraduate and 1,400 graduate students, offers small classes that make it possible for students to develop close mentoring relationships with faculty. These relationships strengthen CLU's sense of community and contribute to each student's success during the college years and after graduation.

## Technology and the Quest for Knowledge

Perhaps CLU's greatest strength in delivering technology is a commitment to helping our students use technology effectively. The University offers a federated search tool that searches all of our databases without going to each database, freeing students to spend more time assessing and analyzing rather than locating information.

With a commitment to enhancing students' experiences by providing the very best technological resources, CLU replaces lab, classroom and faculty computers on a three-year cycle. Students have access to 46,000 electronic full-text journals, 137,000 print volumes, and 94,000 e-books as well as ubiquitous Internet access (wired and wireless) on the Thousand Oaks, Woodland Hills and Oxnard campuses. The University has doubled its Internet bandwidth every year since 2007.

Our information specialists have created an easy-to-use website and subject guides to help students get started with their research. Qualified professional librarians regularly team up with faculty to lead class sessions aimed at enhancing student research skills and helping students identify the best resources for class projects.

Every classroom and large meeting room has an LCD projector and an Internet-ready computer, and the Center for Teaching and Learning assists faculty with the integration of technology into their teaching. CLU uses the latest in course management systems (Blackboard 910), which extends access to course materials and activities to the student's iPhone, iTouch, or Facebook page.

CLU has 13 general computer labs: seven Windows labs and two Mac general computer labs on the Thousand Oaks campus, two Windows labs in Oxnard, one Windows lab in Woodland Hills, and a mixed Windows and Mac lab for student use in Pearson Library. There are also 11 departmental specific labs on the Thousand Oaks campus. These labs are more than Internet gateways. They give students access to a variety of productivity tools including advanced statistical tools, Web page design applications, and advanced graphics and video editing software.

Pearson Library was recently renovated with all new study chairs and movable lounge furniture, large screen monitors in the study rooms to facilitate group study and practicing presentations, and seven collaboration carrels for group study. The library has a core collection of 137,000 volumes, 94,000 e-books, approximately 500 journal subscriptions, 20,000 microfilms, a popular DVD collection, and access to more than 140 electronic databases providing access to more than 46,000 full-text journals.

Through WorldCat, students have access to more than 40 million records of every type of material, including manuscripts written as early as the 11th century, cataloged by OCLC member libraries. The CLU library has lending agreements with other libraries around the world, making it possible for students to access resources through the interlibrary loan program.

## Location

CLU's main campus is located in the city of Thousand Oaks, situated midway between Santa Barbara and Los Angeles. This prime location puts students within easy reach of a variety of cultural experiences and the international business community. Off-campus centers are conveniently located in Woodland Hills and Oxnard.

With a population of approximately 128,000, Thousand Oaks offers the conveniences of an urban area – a state-of-the-art performing arts center, regional shopping centers and internship opportunities in clean high-tech industries – while maintaining its scenic natural beauty enhanced by designated open space, rolling hills and historic oak trees.

Incorporated in 1964, Thousand Oaks is located in Ventura County, 15 miles inland from the Pacific Ocean. Recreational and cultural opportunities abound. In addition to the Thousand Oaks Civic Arts Plaza and CLU's on-campus cultural events series, world-renowned museums, concert halls and world premier productions are within easy driving distance. The Ronald Reagan Presidential Library, located just minutes from campus in the city of Simi Valley, offers additional opportunities for study and research.

Sports enthusiasts – both spectators and participants – will appreciate the variety and accessibility of athletic activities. Winter ski resorts are just a few hours away and both ocean and freshwater sports are close by. Hiking on the nearby trails, biking along scenic corridors, and CLU's active intercollegiate and intramural sports programs provide ample opportunity for involvement.

According to FBI statistics, Thousand Oaks consistently ranks among the safest cities in the nation with a population of more than 100,000. In addition, 24-hour campus security and electronic key devices in residence halls contribute to the safety of CLU students, faculty and staff.

## The Campus

The picturesque main campus spans 225 acres set against scenic Mount Clef Ridge. At the heart of the beautifully landscaped campus is Kingsmen Park, surrounded by the University's academic and residential facilities.

CLU's Scandinavian heritage is evident in the names on several of the major buildings: Pearson Library/Preus-Brandt Forum, Ahmanson Science Center, Samuelson Chapel, Hansen and Pederson administration buildings, Soiland Humanities Center, Spies-Bornemann Center for Education and Technology and Swenson Center for the Social and Behavioral Sciences.

All 14 residence halls on campus are coed, divided by floor or section, and offer recreational areas, kitchen and laundry facilities, and security systems. Individual rooms are equipped with voice mail, computer hook-ups, free cable and air conditioning. Each suite of rooms has a private bathroom.

The athletics complex on the north side of campus continues to grow with venues for intercollegiate and intramural sports, exercise science classrooms and laboratories, and athletic and fitness areas.

Preliminary work on a new \$15 million Dining Commons began in June 2012 with a targeted completion date of spring 2014. The University's 20-year master plan envisions a performing and visual arts center, science facility, enlarged library, an administrative center and additional residence halls.

## Growth in the 21st Century

- **Mogen Hall** was the University's first new building of the 21st century. Nicknamed The Apartments and occupied by students in fall 2000, the three-story residence hall houses 120 students in 30 two-bedroom apartment-like suites.
- **Spies-Bornemann Center for Education and Technology**, dedicated in October 2002, incorporates a distance-learning classroom, television studio, computer labs and faculty offices. The 23,000-square-foot facility, designed to afford maximum interaction between students and faculty, houses undergraduate, professional and graduate programs.
- **George "Sparky" Anderson Baseball Field** was inaugurated in January 2006 with the legendary Hall of Famer throwing out the first pitch. **Ullman Stadium**, with grandstand seating for more than 300 spectators, was completed the following year.
- **Gilbert Sports and Fitness Center**, dedicated in October 2006, houses two major gymnasiums, an events center, a 9,000-square-foot fitness center, athletic training facilities, a dance and aerobics studio, sports medicine facilities and faculty offices.
- **Samuelson Aquatics Center** hosted its first competition in March 2007. The center's 50-meter pool, diving well and diving boards accommodate competitions in swimming, diving and water polo.
- **Hutton Field**, home to the Regals softball team, was dedicated in March 2008.
- **Ron and Sue Poulson Tennis Center**, completed in January 2009, includes six lighted tennis courts featuring Plexipave® professional surfacing.
- **Trinity Hall**, a 220-bed, 80,000-square-foot residence hall, welcomed students in September 2009.
- **Swenson Center for the Social and Behavioral Sciences**, CLU's first LEED-certified structure completed in fall 2010, houses classrooms and faculty offices.
- **Fredrickson Family Early Childhood Center**, a 4,738-square-foot facility dedicated in March 2011 replaces the smaller House on the Hill preschool that served CLU employees and community members for 36 years.
- **KCLU Broadcast Center** houses the Paulucci Studios, the Martin V. and Martha K. Smith Education Suite and a community room/performance space. The high-tech 6,570-square-foot facility was dedicated in May 2011.
- **William Rolland Stadium and Gallery of Fine Art** hosted its first football and soccer games in October 2011. The gallery of fine art may be the country's only dedicated art gallery inside of a stadium.

## History

In 1959 the Pederson Ranch, nestled against the rolling hills of the Conejo Valley, began its transformation to today's dynamic learning community of California Lutheran University. Richard Pederson, the son of Norwegian immigrants, donated his scenic ranch "to provide youth the benefits of Christian education in a day when spiritual values can well decide the course of history." The ranch now forms the heart of the Thousand Oaks campus.

California Lutheran College welcomed its first students in 1961. The young college's early commitment to excellence led to its being granted accreditation by the Western Association of Schools and Colleges (WASC) during its first academic year.

In 1986 the name was changed to California Lutheran University to better reflect its breadth of undergraduate, graduate and professional programs.

## Accreditations and Affiliations

CLU is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC). The Graduate School of Education is accredited by the National Council for Accreditation of Teacher Education, and its credential programs are approved by the State of California Commission on Teacher Credentialing. CLU's program in Financial Planning has been registered with the Certified Financial Planner (CFP) Board of Standards Inc.

The University is a member of the National Association of Independent Colleges and Universities (NAICU), the Association of Independent California Colleges and Universities (AICCU) and the Council of Independent Colleges (CIC). The University's intercollegiate athletic programs compete in the Southern California Intercollegiate Athletic Conference, NCAA Division III.

Just as our first name, California, describes where we are geographically, our middle name, Lutheran, connects us to a 500-year-old educational tradition. We proudly share this tradition with 27 other Lutheran colleges and universities that, like CLU, are affiliated with the Evangelical Lutheran Church in America (ELCA).

For information regarding WASC accreditation, contact:

Western Association of Schools and Colleges

985 Atlantic Ave., Suite 100

Alameda, CA 94501

Phone: (510) 748-9001

E-mail: [wascsr@wascsenior.org](mailto:wascsr@wascsenior.org) (<http://catalog.callutheran.edu/undergraduate/universityprofile/mailto:wascsr@wascsenior.org>)

## Admission

California Lutheran University seeks students who possess qualities of intellect and character, which will enable them to benefit from and contribute to the university community. Each applicant is judged on individual merit without regard for race, color, creed, gender, sexual orientation, age, or national or ethnic origin.

CLU maintains an admission office staffed with trained, professional admission counselors who are available to assist students with college planning. Persons seeking admission services should contact the Admission Office.

Prospective students and their family members are invited and encouraged to visit the campus. Efforts are made to arrange a campus tour, class visitations and/or conferences with professors or coaches according to the interests of the visitor. Admission events held in the fall and spring provide opportunities for high school seniors and transfer students to stay overnight as guests in our residence halls.

The Office of Undergraduate Admission is open, except during holidays, Monday through Friday from 8:30 a.m. to 5 p.m., and on most Saturdays from October to May by appointment only. Visitors should contact the Office of Undergraduate Admission at least two weeks prior to their visit so that appropriate arrangements can be made.

## Application Procedures for Freshman and Transfer Students

*International students should follow the procedures listed below. Any additional requirements are listed under the catalog section "Admission of International Students."*

### 1. Application for Admission

Students should complete an application for admission (including essay) and return it to the Office of Undergraduate Admission together with the nonrefundable \$45 application fee. There is a reduced application fee of \$25 for students applying online. Fall application deadlines are as follows.

#### *For First Year Applicants:*

Deadline to apply for Early Action: November 1

Deadline to apply for Regular Decision Round I: January 15

#### *For Transfer Applicants:*

Priority Deadline for Fall semester admission: March 15

Regular Admission Deadline for Fall Semester: June 1

Spring Application Deadline (Freshman & Transfer Applicants): October 1

### 2. Transcripts

An official transcript from the high school issuing the diploma is required of freshman applicants. Freshman applicants must have their most recent high school transcript sent, followed by a final transcript upon graduation. In addition, if a freshman applicant attended a college or university, all official transcripts must be submitted for review.

Transfer applicants must have a transcript sent from each college/university attended. Transfer applicants with fewer than 30 semester hours or 45 quarter hours of transferable college credit must submit a high school transcript.

U.S. federal government regulations on financial aid awarding require that a transcript showing proof of high school graduation or the equivalent be sent to CLU before enrolling.

### 3. Test Scores

Freshman applicants are required to submit results from either the SAT I or ACT. Test scores recorded on the official high school transcript will be considered official. Transfer applicants with at least 30 semester hours or 45 quarter hours of transferable college credit need not submit scores from the SAT or ACT (TOEFL or IELTS scores may be required of international students – see "Admission of International Students"). Arrangements to take any of these tests or order additional score reports can be made by contacting:

**SAT** - [www.collegeboard.com](http://www.collegeboard.com)

(609) 771-7600

**ACT** - [www.act.org](http://www.act.org)  
(319) 337-1000

**TOEFL** - [www.toefl.org](http://www.toefl.org)

t (<http://catalog.callutheran.edu/undergraduate/admission/www.toefl@ets.org>)[oeefl@ets.org](mailto:oeefl@ets.org)

**IELTS** - [www.ceii.org](http://www.ceii.org)  
[ielts@ceii.org](mailto:ielts@ceii.org)

#### **4. Recommendations**

Freshman applicants must submit one letter of recommendation from a high school teacher, principal, or guidance counselor.

Transfer students must submit a recommendation from a college professor.

#### **5. Additional Information**

In addition to the required essay, personal information (excluding information pertaining to certified learning, physical, or other disabilities protected under the Americans with Disabilities Act) that may have affected the applicant's previous academic performance may be included with the application or discussed personally with a CLU admission counselor.

#### **6. Notification of Admission Decisions**

Freshman applicants: CLU offers a non-binding Early Action Plan whereby students completing applications by November 1 will be notified by mid-January. Students who have their application complete by the Regular Decision deadline of January 15 will be notified by mid-March. Students who complete their files after January 15 are reviewed on a space available basis.

Transfer applicants: Transfer applicants will be notified of admission within one month of submitting all required application materials.

An initial review of the file may result in a request for additional information to be sent prior to a final decision being made. Accepted students are asked to submit a non-refundable \$400 tuition deposit no later than May 1 to secure their place in the class. Extensions may be granted upon request to the Director of Undergraduate Admission. The \$400 deposit is applied to the student's account for the first semester.

## **Admission of Freshman Students**

Students accepted for admission to CLU should have completed a college preparatory program with above average achievement. The following high school course pattern is required as a minimum: four years of English, three of mathematics (through Algebra II), two of foreign language, two of social studies and two of lab science. Applications from promising students who have not completed such a college preparatory program will be reviewed on an individual basis by the Admission Committee.

In addition to the measurement of achievement and aptitude as indicated on transcripts and test scores, other factors considered in the admission process include: recommendations; excellence in co-curricular activities; high achievement in the visual or performing arts; initiative and seriousness of purpose as evidenced through work, travel experiences or contributions to home, church, community and school.

Students who are denied admission as freshmen are encouraged to apply for transfer admission. To be apply as a transfer applicant, refer to the catalog section "Admission of Transfer Students."

## **Admission of Transfer Students**

CLU welcomes students who wish to transfer after completing work at other accredited colleges or universities. Admission will be based upon the quality of previous work attempted. The transfer applicant must also be in good standing at their previous college.

Transfer applicants will be required to attend another accredited two- or four-year post-secondary college or university, and successfully complete a minimum of two semesters of full-time academic study (30 semester hours or 45 quarter hours) with a minimum of a 2.75 GPA. In addition, students must complete Freshman English Composition with a grade of C or better and complete Intermediate Algebra or higher to be eligible for admission.

If the transfer applicant's record is deficient in meeting the admission requirements, the Admission Committee may require further evidence of the applicant's ability to complete a program successfully.

Transfer applicants with fewer than 30 semester hours or 45 quarter hours of credit will be evaluated under the requirements for freshman admission. Students interested in transferring after only one semester must provide final high school transcripts and course registration at their current college or university.

## **Admission of International Students**

The credentials of an international undergraduate applicant – any student who *does not* hold a U.S. passport or a permanent resident visa (green card) for the United States – are evaluated in accordance with the general regulations governing admission.

Each student is required to submit to the Office of Undergraduate Admission an application, official test results from either the SAT I or ACT, the Certificate of Financial Support, detailed translated transcripts of academic record, personal statement, letter of recommendation and proof of English proficiency with TOEFL or IELTS.

Applicants from countries whose *primary* language is not English are required to take any one of the following English language exams: Test of English as a Foreign Language (TOEFL) with a minimum Internet-based score of 79; computer-based score of 213 or paper-based score of 550; the International English Language test (IELTS) with a minimum score of 6.5, or the Pearson Test of English (PTE) with a minimum score of 54. Results of any one of these exams must be submitted before a student is considered for admission.

Students who have studied in a U.S. high school for four years or have completed two years of English composition at another accredited U.S. college or university may request a waiver of the TOEFL or IELTS requirement.

In addition, international students who have been admitted to CLU must submit proof that sufficient funds will be available to meet their educational expenses while studying at CLU *before* a *Form I-20* can be issued. The *Certificate of Financial Support* should be submitted, with appropriate financial documents, to meet both CLU and U.S. federal government requirements of proof of financial status for international students.

## Deferral Policy

Students who have successfully gained admission to CLU may defer their enrollment up to one year by submitting their enrollment deposit by May 1 and a written request to the Office of Undergraduate Admission. The request must include the reason for the deferral. If the reason for deferral is to attend another college or university, the request will not be granted.

Students who choose to attend another college or university after their request for deferral is granted will forfeit admission and scholarship and will be required to be reconsidered for admission to the University.

All scholarships offered at the time of admission will be honored under this policy, unless the student chooses to attend another college or university.

## Readmission of Former CLU Students

A current CLU student who has not been enrolled in classes for two or more consecutive semesters and who wishes to return must apply for readmission through the Office of Undergraduate Admission.

If the student has attended any other colleges or universities during the absence from CLU, an official transcript (showing good standing) must be submitted to the Office of Undergraduate Admission for review, along with the *Application for Readmission*. A student's financial aid package, including scholarships, is subject to review upon readmission to the University.

Students readmitted to the University after an absence of less than two years may complete requirements under the CLU catalog in effect at the time of initial attendance. For separation of more than two years, the catalog in effect at the time of readmission will be applicable.

## Admission as a Non-degree Student

Individuals not interested in pursuing a degree may be admitted as a non-degree seeking student. This student is not a candidate for a degree from CLU, but may enroll in courses for credit. They may subsequently become a candidate for a degree by successfully completing the standard undergraduate admission process. Non-degree students are not eligible for CLU financial assistance and must submit payment for the class (on a per credit basis) prior to registering for their class(es). A maximum of 12 units may be taken at CLU under this status.

*(International non-degree students may not attend CLU for more than two semesters and must be full-time students.)*

An application form for non-degree status is available from the Office of Undergraduate Admission.

## Admission of High School Students

High school students of superior ability may apply for enrollment into selected courses. Students must submit an application form for non-degree status along with consent and recommendation of the high school counselor or teacher. Course availability for high school students will be determined by the Registrar's Office through instructor approval.

## Admission of Re-entry Students

Applicants who have not been enrolled in a college/university for five or more years may be considered for admission on a case by case basis. Each application will be reviewed by the Admission Committee and evaluated in light of the alternate supplementary material that is made available.

## Admission of Homeschooled Students

The academic potential of homeschooled students is evaluated the same as applicants from public or private schools. Students who are homeschooled must complete the following requirements to be considered for admission:

- Submit an ACT or SAT score. The exam score will help determine the applicant's level of preparation for college course work. Students should take the exam in the spring of their junior year and may take the exam more than once; only the highest composite test score will be used to determine admission status.
- Homeschooled students are encouraged to submit passing test scores on the GED (General Equivalency Diploma). The GED test results determine core course units. Exam results must be sent to the Office of Undergraduate Admission, directly from the GED test center.
- Homeschooled students are also encouraged to complete an interview with a CLU admission counselor prior to submitting his or her application.
- The primary teacher/administrator of the home school may be asked to provide:
  - A typed transcript (semester format) of the courses the student completed in the home school environment. Grades or averages earned in each course must be included on the transcript. A curriculum synopsis of the courses which parallel CLU's core course requirements may be requested. The synopsis should include a brief description (paragraph) of each of these courses.
  - Textbook information listed by course (including titles and authors). Students who have taken courses in foreign language must include a description of how they learned the verbal component of the language (i.e., tutor, tapes). The home school administrator should also provide a detailed description of how the applicant fulfilled the natural science laboratory requirement.
  - Students who completed courses in a school other than their home school (traditional high school and/or college) must also submit an official copy of their academic transcript from this school.

**Please note:** Additional supporting documents may be requested by the University to assist officials in making an admission decision.

## Placement and Advanced Credit Standing

Students may petition for placement or credit in subjects in which they may have established college-level competence. Methods of challenging include end-of-course examinations, College Level Examination Program (CLEP), standardized tests approved by individual departments, Advanced Placement or International Baccalaureate examinations.

A maximum of 32 credits by exam may be applied to the degree; eight upper division units can be included in this total.

## College Level Examination Program (CLEP)

No credit is granted on the basis of scores on the General Examination. Credit is awarded for Subject Examinations. To be eligible, a student must score at or above the mean as compared with college students receiving a C in the course. A complete list of credits, courses and minimum scores is available from the Center for Academic and Accessibility Resources.

## International Baccalaureate (IB)

CLU recognizes the quality of the International Baccalaureate program and awards up to four semester hours of credit for each Higher Level examination score of 4 or higher. Subsidiary Level examinations will not be considered for credit.

## Advanced Placement (AP)

Students who have taken an advanced placement course of the College Entrance Examination Board (CEEB) in their secondary school and who have taken the Advanced Placement Examination of CEEB may receive credit. The credit awarded depends on the score a student receives and the subject in which the exam was taken. When official scores are received by the University directly from CEEB, credit is awarded as indicated in the shaded AP area.

## Advanced Placement Credit

AP Examination	Grade	Units (credit in appropriate courses)	Course Equivalents
Art: Studio General	4,5	3	Art Elective
Art: Studio-Drawing	3,4,5	3	Art 160
Art: History of Art	3,4,5	3	Art 111
Biology	3	0	exempt from 1 Nat. Sci. persp.
Biology	4	4	Bio 111 or Bio 121
Biology	5	6	Bio 120, 121
Chemistry	3	0	exempt from 1 Nat. Sci. persp.
Chemistry	4	4	Chem 151*
Chemistry	5	8	Chem 151, 152**
Computer Science A	4,5	4	CSC 110
Computer Science AB	3	4	CSC 110
Computer Science AB	4,5	4	CSC 210

Economics: Mic	4,5	3	Econ 200
Economics: Mac.	4,5	3	Econ 201
English: Lang & Comp	3	0	Eng 101
English: Lang & Comp	4,5	3	Eng 111
English: Lit & Comp	3	0	Eng 101
English: Lit & Comp	4	3	Lit. Perspective
English: Lit & Comp	5	4	Lit. Perspective
Environmental Science	4,5	4	Geol 152, 152L
Foreign Language: French	3	0	Exempt from French 101
Foreign Language: French	4,5	4	French 101
Foreign Language: Spanish	3	0	Exempt from Spanish 101
Foreign Language: Spanish	4,5	4	Spanish 101
Foreign Language: German	3	0	Exempt from For. Lang. req.
Foreign Language: German	4	4	Exempt from For. Lang. req. & credit in 201
Foreign Language: German	5	8	201, 202
Foreign Language: Other Lang.	3	0	Exempt from 1st semester
Foreign Language: Other Lang.	4,5	4	1st semester language
Government & Politics	4,5	4	Poli Sci 102 or 222 (major)
History: American	4	0	Exempt from History Perspective
History: American	5	3	Hist 121 or 122
History: European	4	0	Exempt from History Perspective
History: European	5	3	Hist 102
Latin	4,5	4	Exempt from For. Lang. req.
Math	3	0	Exempt from Math proficiency
Math: Calculus AB	4,5	4	Math 251
Math: Calculus BC	4,5	8	Math 251, 252
Math: Statistics	4,5	4	Elective credit only (does not satisfy Math prof.)
Music: Listening & Lit.	4,5	3	Mus 101
Physics: B (non-calc)	4,5	8	Phys 201, 202
Physics: C (Mechanics)	4,5	4	Phys 211
Physics: C (E&M)	4,5	4	Phys 212
Psychology	3	0	Exempt from Psyc. 200
Psychology	4,5	4	Psyc 200

\* Additional unit for 151L awarded upon review of laboratory record.

\*\* Additional unit each for 151L,152L awarded upon review of laboratory record.

## Financial Aid

The Office of Financial Aid at California Lutheran University offers a variety of resources to help bridge the gap between the institution's cost of attendance and a family's ability to pay. Awards of financial assistance to CLU students may include funds from the federal or state government, the institution and/or from outside organizations.

Students need to complete the Free Application for Federal Student Aid (FAFSA) to apply for financial aid which is available online at [www.fafsa.gov](http://www.fafsa.gov). The Title IV school code for California Lutheran University that students need to indicate on the FAFSA is **001133**.

## Procedures

To be considered for financial assistance, the applicant needs to do the following:

1. Apply for admission to California Lutheran University and be admitted or be a currently enrolled student who is continuing enrollment at CLU for the following academic year.
2. Submit a Free Application for Federal Student Aid (FAFSA). The FAFSA may be completed and submitted online at [www.fafsa.gov](http://www.fafsa.gov) (<http://www.fafsa.gov>).

3. If selected for verification, students must submit all requested documentation to the Financial Aid Office within 30 days of receipt of the letter from the Office of Financial Aid.

After a student is awarded financial aid, an email notification is sent to the student's callutheran.edu email address and the student can review the award in WebAdvisor. Incoming new students also receive a paper financial aid award letter. The student must accept the award(s) he or she wants and decline the award(s) he or she does not want. If the student chooses to borrow funds, he or she must follow the steps to complete the loan application (Master Promissory Note) and Entrance Counseling (if applicable).

To receive the full amount of federal and state grant aid and any institutional gift money awarded as part of an undergraduate student's Financial Aid Award, the student must be enrolled in at least 12 undergraduate units per semester. Students enrolled in less than 12 undergraduate units per semester will not be eligible for institutional gift aid and will most likely see a reduction in federal and state grant aid. Students must be enrolled in at least six undergraduate units per semester to be eligible for federal loans.

If a student is in his or her last semester prior to graduation and requires less than 12 units to complete his/her graduation requirements, he or she will only be eligible to receive a prorated amount of institutional gift assistance and federal loan funds. Please contact the Office of Financial Aid for more information.

## New Students

For priority awarding, all of the above steps need to be completed between **January 1 and March 1**.

California residents who are applying for a Cal Grant must complete the FAFSA and the Cal Grant GPA Verification Form by March 2. The GPA Verification Form is available at [www.csac.ca.gov](http://www.csac.ca.gov) (<http://www.csac.ca.gov>) and is normally completed using the student's high school grade point average (GPA) or the GPA submitted by the student's community college of attendance.

## Renewal Applicants

Financial aid awards are made for one year only. Continuing students must re-apply each year by resubmitting/renewing the FAFSA by the March 1 priority deadline. Failure to submit the FAFSA by the March 1 priority deadline may result in a reduction of federal and/or institutional aid. Failure to submit the FAFSA by the April 15 final deadline will result in a reduction of institutional aid. Please note that CLU will submit all continuing students' GPAs to the California Student Aid Commission (CSAC) for consideration for Cal Grant by March 2.

Academic Scholarships and Visual and Performing Arts Scholarships are renewable if the student maintains the required GPA and meets all department requirements. Renewal award letters are prepared for continuing students by early June of each year provided the March 1 priority deadline has been met.

## Dependency Status

A student is considered "independent" if he or she falls within one of the following categories at the time the FAFSA is filed:

1. Is 24 years of age or older
2. Is a veteran of the U.S. Armed Forces
3. Is currently serving on active duty for purposes other than training
4. Is pursuing a master's or doctoral degree
5. Is married
6. At any time after age 13, both parents are deceased, were in foster care or were a dependent or ward of the court
7. Has children he or she supports more than 50%
8. Has legal dependents (other than children or a spouse) he or she supports more than 50%
9. Is an emancipated minor as determined by a court in the student's state of legal residence
10. In a legal guardianship as determined by a court in your state of legal residence
11. Other categories as listed on the FAFSA regarding being an unaccompanied youth who was homeless or were self-supporting and at risk of being homeless

If a student has special circumstances, a dependency override may be considered. Contact the Office of Financial Aid for the forms needed to appeal dependency status.

## CLU Academic Scholarship

Academic Scholarships are awarded to new freshman and transfer students who qualify. Scholarships are renewable for up to four years based upon the student's grade level at entrance, cumulative Grade Point Average (GPA), and Satisfactory Academic Progress (SAP). Students must maintain a 3.0 cumulative GPA to retain the scholarship if they started at CLU as a freshman and must maintain a 2.5 cumulative GPA to retain the scholarship in

subsequent years if they started at CLU as a transfer student. To meet SAP, a student must complete at least 12 units in the fall semester and at least 12 units in the spring semester of enrollment at CLU.

## CLU Presidential Scholarship

Presidential Scholarships recognize and reward graduating high school seniors in the top tier of CLU's applicant pool who embody the University's educational and leadership goals. Students invited to come to campus for Honors Visit Day will interview for the top scholarships offered by the University. These scholarships are renewable for up to four years as long as the student maintains a 3.0 or higher Grade Point Average (GPA) and meets Satisfactory Academic Progress. The scholarships awarded through this program will replace any Academic Scholarship the student received at the time of admission and will also replace the CLU Guarantee Scholarship in its entirety if it is higher.

## CLU Guarantee Scholarship

CLU offers first-year and transfer students who are also admitted to UCLA, UCSB, UC Davis, UC Berkeley, or UCSD a renewable scholarship based on the Cost of Attendance (COA) at CLU and the average COA of these five public institutions. The scholarship makes the cost of attending CLU approximately the same as the cost of attending these five state institutions. To receive the CLU Guarantee Scholarship in subsequent years, the student must maintain a minimum cumulative GPA of 3.0 if entered CLU as a freshman or 2.5 if entered CLU as a transfer student. The scholarship is renewable for up to four years **based on the student's grade level at time of enrollment**. The CLU Guarantee Scholarship will replace any CLU Academic Scholarship the student received at the time of admission and will also replace the Presidential Scholarship in its entirety if it is higher.

## Visual and Performing Arts Scholarship (VAPA)

Students with talent in the areas of visual arts, theatre arts, or vocal or instrumental music can audition for a VAPA scholarship prior to enrolling at CLU. For fall enrollment, the application must be completed by February 1 and the audition completed by February 22. The application is available online at [www.callutheran.edu/vapa](http://www.callutheran.edu/vapa). For spring enrollment, students are considered on a case-by-case basis by the faculty. For more information, please contact the Admission Office.

## Cal Grant

Awards of up to \$9,708\* for Cal Grant A and up to \$11,259\* for Cal Grant B and Access are offered by the California Student Aid Commission to students who are residents of California, have financial need as defined by the state, and who meet the academic and income/asset requirements in effect at the time of application. A Cal Grant GPA Verification Form is required for first-time applicants. The Verification Form and the FAFSA must be submitted by March 2 to be considered for eligibility.

\* These amounts are subject to change based on the annual amounts as determined by the California Student Aid Commission ([www.csac.ca.gov](http://www.csac.ca.gov)) (<http://www.csac.ca.gov>) and funding available from the state of California.

## Federal Pell Grant

Federal Pell Grant is available to undergraduate students with exceptional financial need. To apply, students must complete the FAFSA form. For 2012-2013, eligible students received up to \$5,550\* if they meet eligibility requirements.

\*This amount is subject to change each year depending on government regulations and the federal budget allocations. Please go to the Office of Financial Aid's website for the most up-to-date information.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

Federal SEOG is provided to eligible students with extremely high financial need. Unlike Federal Pell Grants, FSEOG funding is very limited. CLU receives a specified amount of FSEOG funds each school year. Once those funds are depleted, no additional awards can be made to students.

## Federal Work-Study

Federal Work-Study (FWS) is a part-time employment program which helps high-need students meet educational expenses. While FWS offers students the opportunity to apply for a job, there is no guarantee of obtaining a position as job availability is limited. FWS jobs are highly competitive and it is the student's responsibility to be proactive in applying and following up with prospective employers. Students who have a Federal Work-Study position cannot be a Resident Assistant or Departmental Assistant.

## Student Employment

The Student Employment Coordinator lists part-time, full-time, and seasonal jobs for both on- and off-campus work on the student employment website. Off-campus job listings are posted as received. On-campus jobs are posted as positions become available. All CLU students seeking employment information may contact the Student Employment Coordinator in the Office of Financial Aid for further information.

## Federal Perkins Loan

This low interest subsidized loan is made available to students who qualify on the basis of verified financial need. Based on available funds, undergraduate students may borrow up to \$4,000 per year at CLU. Students are awarded a Federal Perkins Loan by the Office of Financial Aid based

on EFC, need, and grade level. If a student is offered a Perkins Loans, he or she must complete Entrance Counseling and an application in order to receive the loan.

Repayment begins nine months after graduation or at the time the student leaves the University or drops below half-time enrollment. Repayment may be extended for up to 10 years. Loan deferments are available for individuals who return to school for the purpose of furthering their education. Exit Counseling is required prior to leaving CLU, graduating, or when the student is no longer eligible to receive a Perkins Loan.

\*The information above regarding the Federal Perkins Loan is accurate as of time of printing. Due to potential legislation from the government, the rules and regulations surrounding the Perkins Loan may change at any time.

## **Federal Stafford Loan**

The Federal Stafford loan program is divided into two types of loans – subsidized and unsubsidized. Both have fixed rates (please contact the Financial Aid Office for the most current interest rate information) and are available to students who are fully admitted to an eligible program of study and are enrolled at least half time (for traditional undergraduate students this means being enrolled in at least six units per semester).

The U.S. Department of Education funds the loan. Students must apply and may need to complete Entrance Counseling. At the present time, the maximum amount that can be borrowed by a dependent student for an academic year is \$5,500\* for freshmen (up to \$3,500 of this amount may be subsidized); \$6,500\* for sophomores (up to \$4,500 of this amount may be subsidized); and \$7,500\* for juniors, seniors and teacher preparation students (up to \$5,500 of this amount may be subsidized).

At the present time, the maximum amount that can be borrowed by an independent student for an academic year is \$9,500\* for freshmen (up to \$3,500 of this amount may be subsidized); \$10,500\* for sophomores (up to \$4,500 of this amount may be subsidized); and \$12,500\* for juniors, seniors and teacher preparation students (up to \$5,500 of this amount may be subsidized).

The federal government pays the interest on the subsidized Stafford loan while the student is enrolled in school at least half time (at least six units per semester). Students who do not qualify for the subsidized Stafford may borrow the unsubsidized Stafford loan which does accrue interest. Students have the option of making interest-only payments or allowing interest to accrue. To apply, students must complete a FAFSA form, accept the loan as part of the Financial Aid Award, and submit an online loan application.

\*Amounts are subject to change based on government regulations and allocations. Please contact the Financial Aid Office for the most up-to-date information.

\*\*The information above regarding the Federal Stafford Loan is accurate as of time of printing. Due to potential legislation from the government, the rules and regulations surrounding the Stafford Loan may change at any time.

## **Parent PLUS Loan**

Parent Loans for Undergraduate Students (PLUS) are available to parents of dependent undergraduate students. The interest rate is fixed at 7.9 percent. The annual loan limit is the student's cost of attendance minus other financial aid.

If the parent PLUS loan is denied, the dependent student may apply for additional unsubsidized Stafford loan money in the following annual amounts: for freshmen and sophomores \$4,000, and for juniors and seniors \$5,000.

## **Private Loans**

Alternative Student Loans are loans that are available to students who need additional assistance after exhausting any Stafford and/or PLUS loan options. These are credit-based loans with variable interest rates and are recommended as a last resort. Please contact the Office of Financial Aid for additional information.

## **Resident Assistantships**

Resident Assistantships are stipend positions. Selection is made through the Residence Life Office. Students who are Resident Assistants cannot be Departmental Assistants or have another on-campus job through Federal or Campus Work-Study.

## **Departmental Assistantships**

Departmental Assistantships are awarded each year to students of high academic standing in their major fields of study. Application should be made to the appropriate department chairs. Each assistantship carries a stipend to be determined at the beginning of each academic year. Students who are Departmental Assistants cannot be Resident Assistants or have another on-campus job through Federal or Campus Work-Study.

## **Veterans' Benefits and Responsibilities**

As students of California Lutheran University, veterans or their eligible dependents may be entitled to education benefits through Veterans Affairs. Students must submit a Veterans School Form in the Registrar's Office to notify CLU that they are a recipient of those benefits. Students who receive VA benefits are responsible for promptly notifying the VA certifying official in the Registrar's Office of changes in academic program, course load, address,

marital or dependent status and of withdrawal from one or more courses. Questions about enrollment status should be directed to the VA certifying official in the Registrar's Office. For information about benefits, contact the U.S. Department of Veterans Affairs.

## ROTC Scholarship Program

ROTC scholarships pay all costs for tuition, registration, laboratory fees and books, plus a monthly cash allowance. Full four-year scholarships are offered to high school seniors selected in a nationwide competition. A limited number of less-than-four-year scholarships are available to outstanding students enrolled in the ROTC program.

## Aid for Native Americans

Native American students who can prove membership of a federally recognized tribe may receive educational grants from the federal Bureau of Indian Affairs (BIA).

## Congregational Partners in Education (CPE) Award

This renewable award allows congregations to assist outstanding young people who have demonstrated a commitment to the life and work of their church. CLU will match gifts from the congregation in support of a student in \$100 increments to a maximum of \$2,500 as long as the student is enrolled full time (12 units per semester).

## ELCA Pastor's Family Award

The ELCA Pastor's Family Award of \$1,500 per academic year is available to children of all ELCA clergy. To be eligible, students must be unmarried, under the age of 23, and enrolled full time at CLU (12 units per semester).

## Required Reporting

It is the student's responsibility to report any change in status or resources while receiving financial aid. Failure to do so may result in denial of further financial aid.

The Office of Financial Aid receives periodic reports from the Housing, Registrar, and Payroll offices listing student resources in the form of room and board awards, nontaxable income (VA, Social Security, private scholarships) and earnings other than Work-Study. These reports are checked against previously reported student resources to determine ongoing eligibility.

Financial aid awards will be adjusted if receipt of additional resources results in a reduction of financial eligibility. If funds in excess of the revised eligibility figure have already been received, the student is responsible for the immediate repayment of those funds.

Similarly, if circumstances change to increase financial need, consideration will be given to an increased award if funds are available.

## Satisfactory Academic Progress (SAP)

In accordance with Federal Financial Aid Regulations, financial aid recipients are required to meet SAP requirements toward graduation in order to continue to receive financial aid.\*

In order to receive financial aid [which includes CLU Scholarships, CLU Grants/Match Programs, Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (FSEOG), Cal Grants, Federal Work-Study (FWS), Perkins Loans, Federal Stafford Loans, PLUS Loans, and Alternative Loans certified by CLU], a student must be enrolled in an eligible program of study that leads to a Bachelor's Degree. In addition, there are three requirements that students must meet to be eligible to receive financial aid:

1. **Qualitative requirement:** the minimum grade point average (GPA) the student must maintain
2. **Quantitative requirement:** the number of units the student completes versus the number of units attempted
3. **Maximum Timeframe:** the maximum length of time for which the student may receive financial aid

\* To learn more about the SAP policy and other academic progress policies that affect continued eligibility for federal, state, and/or institutional funding such as Academic Scholarship Eligibility (ASE) and Institutional Aid Eligibility (IAE), please refer to the policies that are posted on the Office of Financial Aid website under the heading "Satisfactory Academic Progress."

## Refund Policies for Federal Aid

Students who receive federal aid\* are subject to federal return of funds policies. If the payment period for which a student received funds (semester) is not completed and the student withdraws from all courses, then the student is only eligible for a percentage of the aid equal to the percentage of the period completed. The following is an example of this concept:

*Krista enrolls in the fall semester but drops out before the end of the semester. She actually completes 35 percent of the semester and, therefore, is only eligible for 35 percent of the aid awarded for that period (amount earned).*

If the aid earned is more than the amount that was actually disbursed to the student (credited to their account), then California Lutheran University will offer the student a post withdrawal disbursement according to certain conditions such as whether or not a valid Student Aid Report has been received, the status of the verification process, etc. If the amount disbursed is more than the amount earned, then California Lutheran University must return the amount unearned to the U. S. Department of Education. The student will then be responsible for any balance owed to California Lutheran University caused by the return of funds. For additional information, please contact the Office of Financial Aid at (805) 493-3115. *\*Federal aid covered by the Return of Funds policies includes the Unsubsidized Stafford Loan, Subsidized Stafford Loan, Perkins Loan, PLUS loan, Pell Grant, and Supplemental Educational Opportunity Grant (FSEOG). Federal Work-Study is not covered by these policies.* If a student must discontinue his or her studies before the end of a semester, the amount of institutional gift monies allowed to remain with the student will be in proportion to the amount of time the student was enrolled and amount charged. To determine the percentage of reduction applicable to university aid, please check with the Student Accounts Office.

## University Costs

This section explains the financial responsibilities associated with enrollment at CLU. Specific details regarding fees, payment methods, due dates, policies and procedures administered through the Student Accounts office are provided for your information.

### Tuition Deposit

A \$400 non-refundable tuition deposit is required of all new students.

### Housing Damage Deposit

A \$400 damage deposit must be submitted with the initial housing application. Refund will be made after graduation or withdrawal, provided there are no other financial obligations to the University.

### Registration and Fee Payment Policy

- Complete the registration forms
- Fill out the online Payment Contract located on the CLU Student Accounts website
- Pay the required tuition, fees and housing charges prior to the deadline for fee payment, as noted on the statement of charges. Exceptions are those who have enrolled in the monthly payment plan.

Note: Students who have estimated financial aid (including loans) must confirm pending aid and make payment of any difference. Proceeds from Stafford loans are received on various disbursement dates throughout the semester. The lender may send correspondence indicating an earlier disbursement date, but refunds will not be released before the third week of the semester. Therefore, students must be prepared with other funds to purchase books and supplies. Average cost of books for one semester is \$850.

## Payment Methods

### Paying in Full

The student account balance is paid in full prior to the beginning of the registered term by the financial clearance deadline.

### Pay by Check

Please include your student ID number on the check and mail to:

California Lutheran University  
Business Office #1220  
60 West Olsen Road  
Thousand Oaks, CA 91360

### Pay online through TouchNet

- All students will automatically be registered for TouchNet use
- Receive email notifications when interest accrues on your account
- Receive quick access to view and print your most recent monthly statements and billing history
- See current account activity since last statement
- May create unique login for authorized users, i.e., parents, etc.
- Can make payments online using electronic checks at no charge

Please note: All students are automatically registered and do not require an account holder number or password. If a student is using TouchNet and sees this on their screen, they need to log out of the Internet and reconnect. This message is specifically for authorized users (such as parents) who

have been given access by the student. **When moving through the different fields, try to avoid using the backspace or back arrow key as this may lock you out of your account. Rather, utilize the different tabs located at the top of your screen.**

## Electronic Statements and Payment Opportunities on TouchNet

1. Students login to MyCLU Portal and click on WebAdvisor
2. Under Business Office, click on View Statements/Make Payments to access TouchNet
3. Click on NEXT
4. Students can authorize other users to view statements and make payments, e.g., parents, etc.

Authorized users log in through: [https://epay.callutheran.edu/C20490\\_tsa/web/login.jsp](https://epay.callutheran.edu/C20490_tsa/web/login.jsp)

## Authorizing Users for Electronic Account Access

1. Students login to MyCLU Portal and click on WebAdvisor
2. Under Business Office, click on View Statements/Make Payments to access TouchNet
3. Click on NEXT
4. Click on Add Authorized User
5. Enter email address of the Authorized User
6. Select viewing options
7. Click on Add User
8. Enter last four digits of your Student ID number and click "I Agree" button to continue

## Pay via ACH on an Automatic Monthly Payment Plan

1. Enrollment fees apply
2. Plans available for 15-week semesters, 11-week terms, and 8-week terms
3. Employer Reimbursement participants do not qualify
4. Contact us at [stuacct@clunet.edu](mailto:stuacct@clunet.edu) or call (805) 493-3180 to speak to a CLU representative who will help you estimate your costs.

## Finance Charge

A finance charge of 1.25 percent per month will be added to account balances at the end of each monthly billing cycle if arrangements have not been made to participate in the Monthly Payment Plan.

## Online Service

CLU provides students and parents the convenience of online billing and payment options through TouchNet. Email notifications are sent to students via their CLUNET email accounts. TouchNet offers unique login for authorized users, i.e., parents, employers, etc. Paper statements are only sent to the home address prior to the beginning of each semester. TouchNet accounts need to be checked monthly for new charges, credits, and/or assessed interest.

## Financing Alternatives

Contact the CLU Financial Aid Office at (805) 493-3115 for information on other financing options such as alternative loans. Students or parents may also want to contact their lending institutions for other possible sources of financing. Many commercial lenders will make private educational loans to families who meet their credit requirements. These loans are available in a variety of forms, including personal loans, credit lines, home equity loans, insurance policies and passbook savings loans.

## Reduction of Charges

Withdrawal dates used by the Student Accounts Office for reduction of charges are not the same as withdrawal dates used by the Registrar's Office as the last date for dropping a class. To officially withdraw from a class and be eligible for a tuition adjustment, the student must:

1. Withdraw online through WebAdvisor. Upon completion of your online withdrawal, a confirmation will be emailed to you at your CLUNET email address. If you do not receive this confirmation email, you must verify your withdrawal by looking at "My Schedule" through WebAdvisor. If, at any time, proof is required of a successful change to your enrollment, a copy of the email confirmation or a copy of "My Schedule" will be required.
2. Submit a Change of Program form to the Registrar's Office on the Thousand Oaks campus. CLU does not automatically drop students from a class if they register but do not attend. Students remain financially responsible for a reduced portion of their charges according to the following schedule:

## Tuition

1. Withdrawal during first and second weeks of semester: 20 percent charge.
2. Withdrawal during third and fourth weeks of semester: 60 percent charge.
3. Withdrawal during fifth week of semester: 80 percent charge.
4. Withdrawal after the fifth week: full charge.

## Board

Board reductions are made on a proportional basis computed from the date the student officially withdraws and leaves campus.

## Room

No reduction is made for room charges once classes have started. Returning students who cancel their housing contract between May 1 and August 1 will be charged a \$200 cancellation fee. Cancellations after August 1 will be charged \$400.

## Student Vehicles

To assist Campus Security, all vehicles must display a current CLU vehicle registration permit. Fines may be assessed if vehicles are not properly registered. For parking and vehicle registration information, visit the Campus Safety and Security website at [www.callutheran.edu/Campus\\_Life/Security](http://www.callutheran.edu/Campus_Life/Security).

## Rights and Responsibilities

Upon registration, students and their parents (or legal guardian) agree to accept the responsibility and legal obligation to pay all tuition costs, room and board fees, and other special fees incurred or to be incurred for the students' education.

Students also agree to:

- Confirm registration within the first two weeks of the semester
- Promptly respond to all communication requests from any office on campus
- Submit all necessary forms and information to the Financial Aid and Student Account offices in a timely manner
- Apply any and all Federal Work-Study checks as payment to unpaid student account balances

The University, in turn, agrees to make available to students certain educational programs and the use of certain university facilities, as applicable and as described in university publications.

Failure by a student to pay all university bills shall release the University from any obligation to continue to provide the applicable educational benefits and services including, but not limited to, transcripts of records, diplomas or registrations. The student may also be denied admittance to classes and the use of university facilities. Under certain circumstances, student paychecks may be applied to unpaid balances.

## Costs for the Academic Year 2012-2013

### Tuition

Activity	Cost
Tuition - Full-time (12-18 credits per semester)	\$16,955
Student Fee (per semester)	\$125
Technology Fee (per semester)	\$100

### Room and Board

Note: The standard residence halls are closed during Christmas break. The apartment residence halls will be open to those residents during Christmas break. The dining hall is closed and no meals are served during Thanksgiving, Christmas, spring and/or Easter vacations.

### Room (per semester) Undergraduate

Activity	Cost
Standard residence halls	\$3,110
Mogen Hall	\$4,165
Grace Hall/Trinity Hall	\$4,955
Trinity Studio	\$5,225

## Room - Graduate Students

Activity	Cost
Grace Hall - Graduate	\$12,670 (academic year)
Kramer (6 units)	\$8,330 (academic year)
Houses (open market)	\$8,330 (academic year)

## Board (per semester)

(Residents of Kramer, Mogen, Grace, and Trinity halls and university-owned houses are not required to purchase a meal plan.)

Activity	Cost
19 Meal Plan (50 Points)	\$2,645
15 Plus Meal Plan (200 points)	\$2,800
12 Plus Meal Plan (225 points)	\$2,710

Additional Board Options for Mogen, Kramer, Grace, Trinity halls and houses per semester:

Activity	Cost
8 Plus Meal Plan (275 points)	\$2,570
5 Plus Meal Plan (300 points)	\$1,925

## University Fees

Activity	Cost
Tuition each semester	\$16,955

NOTE: Full-time students (those taking 12-18 hours per semester) will be charged \$16,300 each semester plus \$1,049 for each credit in excess of 18. Part-time students (1-11 credit hours) will be charged \$1,049 per credit.

Activity	Cost
Application Fee (paid once, nonrefundable)	\$45
Late Registration Fee	\$50
Audit Fee (per credit if less than full time)	\$545
Credit by Examination (Fees are paid prior to taking exam; see Registrar's Office for forms)	Fees Vary
Student Fee (per semester)	\$125
International Student Fee (per year) (Fall \$400, Spring \$450)	\$850
Private Music Fees (excluding tuition)	\$300
Theatre Arts - Alexander Technique (excluding tuition) (per unit)	\$300
Technology Fee	\$100 (per semester)

## Physical Education Fees (excluding tuition)

Activity	Cost
Golf	\$220

\* Fees are determined by outside contractors and are subject to change without notice.

## Student Life

California Lutheran University provides a stimulating environment in which students learn and live as part of a community of scholars. Opportunities for individual growth are enhanced by campus involvement. CLU offers a broad range of opportunities for students to pursue individual interests as well as dedicate themselves in service to others.

Within CLU's community there are opportunities for cultural, social, recreational, worship and service-oriented activities. Support services are also available to ensure students receive the assistance needed to have a successful and enriching experience. At CLU, each student is expected to contribute to the common good, promote the welfare of the institution and strengthen the University's academic and spiritual life.

## Campus Involvement

At CLU, participation in co-curricular activities is encouraged as a way to enrich students' overall learning experiences. During this time of exploration and growth, there are a variety of involvement opportunities, clubs and activities for students to remain active in their established areas of interest or pursue new interests.

## Theatre Arts

CLU students have ample opportunity to be involved in theatre arts productions both as spectators and participants. The Theatre Arts Department annually stages several productions including Main Stage Theatre, Black Box Theatre Series, and film and video productions.

The Kingsmen Shakespeare Festival, held annually on the CLU campus, provides students with professional theatre intern opportunities. CLU's theatre faculty are working professionals who help students connect with the theatre and film industry.

## Fine Arts

Student artists will want to join CLU's Art Department faculty on field study trips to art exhibitions and museums. Students may also assist in preparing campus art exhibitions. Each spring, the Art Department sponsors a senior art exhibit to highlight student work. In addition to the Thousand Oaks Civic Arts Plaza, major museums, galleries and theaters are located in nearby Santa Barbara and Los Angeles counties.

## Honor Societies

Honorary societies with active campus chapters include Alpha Mu Gamma (Foreign Language), Alpha Phi Sigma (Criminal Justice), Omicron Delta Kappa (Leadership), Pi Sigma Alpha (Political Science), Sigma Beta Delta (Business), Sigma Delta Pi (Spanish), Sigma Tau Delta (English) and Zeta Chi (Pi Delta Phi - French).

## Journalistic and Literary Interests

Student writers are encouraged to submit their work to CLU's literary magazine, *Morning Glory*; the weekly student newspaper, *The Echo*; and multicultural journal, *The Word*. Courses to hone writing skills are offered through the English and Communication departments.

## Music

CLU's Music Department offers vocalists and instrumentalists a variety of ensembles in which to participate including the University Choir (touring group), the Women's Chorale, the University Symphony, Wind Ensemble and Jazz Improvisational Band as well as other instrumental and vocal chamber ensembles. Musical stage productions give students further opportunity for musical expression.

## Social Activities

Leadership events, Midnight Madness, and Commuter Lunches are examples of events and programs sponsored by the Office of Student Leadership and Programs. Additionally, the Programs Board of the Associated Students of California Lutheran University (ASCLU) organizes Club Lu and a wide variety of events throughout the year. Both the Office of Student Leadership and Programs and the ASCLU offices are currently housed in the modular offices located between the Swenson Center and F Building.

## Community Service Center

The Community Service Center serves to engage students in sustainable service outside the classroom; to develop active citizens that will be knowledgeable of the difference an individual can make within their community. We strive to create a student body committed to lifelong service and justice in a global society. In keeping with CLU's mission to educate leaders committed to service and justice, we create service opportunities that match community needs and student interests.

The CSC connects individuals and groups to volunteer opportunities relating to their interests. Whether you're an experienced volunteer or want to get involved for the first time, we have a variety of ways for you to explore service. Join us! Please visit our website at [www.callutheran.edu/csc](http://www.callutheran.edu/csc)

## Wellness Programs

An office dedicated to providing programming and educational opportunities for the CLU community regarding health and wellness topics. As advocates for healthy living, the staff makes tools and information available to help students receive the facts needed to make healthy choices while at CLU and beyond. The Wellness Programs Office is currently located in the modular offices located between the Swenson Center and F Building.

Wellness Focus Areas include:

- Alcohol Education
- Healthy Living
- Sexual Responsibility
- Tobacco and Other Drug

Visit our website for 24 hour a day resources and up to date information: [www.callutheran.edu/wellness](http://www.callutheran.edu/wellness)

## Student Clubs and Organizations

CLU has approximately 70 active student clubs and organizations. Examples include:

- Accounting Association
- American Medical Student Association
- Anime
- Brothers & Sisters United
- Club Italia
- College Democrats
- College Republicans
- Dance Team
- Feminism Is...
- French Club
- Gay-Straight-Alliance
- Habitat for Humanity
- Hip Hop Organization
- Knights Rugby
- Knights Lacrosse
- Latin American Student Organization
- Lord of Life
- Math Club
- Midwest Appreciation Club
- Nomads
- Philosophy Club
- Pi Sigma Alpha
- Psi Chi Connection
- Psychology Club
- The Purple Pit
- The Secular Student Alliance
- United Students of the World

A full listing of clubs and organizations can be found at [www.callutheran.edu/clubs](http://www.callutheran.edu/clubs)

## Associated Students of California Lutheran University (ASCLU)

Students are involved in campus life in a variety of ways, including clubs and organizations, student government, student/faculty committees, personnel searches and task forces on particular issues.

All traditional undergraduate students carrying 12 units or more are automatically members of the Associated Students of California Lutheran University. The representing governing body of the ASCLU is the ASCLU-Government (ASCLU-G), which is divided into three distinct bodies: the Executive Cabinet, Programs Board and Senate. The Executive Cabinet, consisting of the President, Senate Director, Programs Board Director, Controller and Recorder, oversees the two boards, facilitates the weekly meetings, and acts as the formal representatives of ASCLU. The Programs Board is responsible for ASCLU-sponsored student events such as the Homecoming Carnival, Club Lu Friday night events, and Spring Formal. The Senate develops legislation to make recommendations to the University for campus improvements, and allocates student fee money to projects deemed important by undergraduate students.

Students are elected into the ASCLU-G Executive Cabinet, Programs Board and Senate during the spring semester for most offices and during the fall semester for selected offices, with terms lasting one academic year. Committee appointments within the boards are made through the ASCLU-G Executive Cabinet.

## Cultural Opportunities

CLU is an exciting place to be, with enthusiastic artists preparing for careers in drama, music and the visual arts. Each year, these students exhibit their fresh talents through plays, concerts, recitals and exhibitions. In addition to on-campus talent, visiting artists enrich CLU's array of cultural offerings. Most events on campus are free to CLU students.

## Cultural Events Series

CLU's Cultural Events Series features a variety of talented guest lecturers and performers. Dance troupes, authors, poets and musicians are examples of the entertainment one can expect. Recent noted lecturers have included political activist Naomi Wolf; award-winning authors Tim O'Brien, Kao Kalia Yang and Lisa See; journalist Joe Klein and NPR host Scott Simon.

The Harold Stoner Clark Lecture Series is an annual fall event. Fascinated by a philosophical sense of wonder about what lies just beyond the reach of scientific research, the late Harold Stoner Clark endowed this lecture series. Ecologist Sandra Steingraber, theologian Nancey Murphy, theoretical physicist Brian Greene and philosopher David Chalmers are among recent featured speakers.

## Festivals and Special Events

The dynamic campus community is host to colorful celebrations throughout the year. Diverse cultures are explored and celebrated through a variety of events including the Scandinavian Festival highlighting the University's Nordic heritage, Festival de Encuentros, the Asian Festival and national Black History Month.

## Art Collections

CLU's collections include the La Boyteaux Collection of New Guinea Art, the Lou Grubb Collection of Native American Art and European Paintings, the Rev. Patty Hundley Photographic Archive, the Brosius Collection of Philippine Island ethnic materials and other contemporary works. In addition to CLU's own collection, the Kwan Fong Gallery of Art and Culture and Overton Hall regularly display art and special exhibits.

## Recreation and Athletics

### Intercollegiate

CLU competes in the Southern California Intercollegiate Athletic Conference (SCIAC). Founded in 1915, the SCIAC was one of the first athletic conferences formed in the United States. Membership includes California Institute of Technology, Claremont-Mudd-Scripps Colleges, University of La Verne, Occidental College, Pomona-Pitzer Colleges, University of Redlands and Whittier College. CLU is also a member of the National Collegiate Athletic Association (NCAA) Division III.

The men's intercollegiate program includes:

- Baseball
- Basketball
- Cross country
- Football
- Golf
- Soccer
- Swimming and diving
- Tennis
- Track and field
- Water polo

Women's intercollegiate sports include:

- Basketball,
- Cross country
- Golf

- Soccer
- Softball
- Swimming and diving
- Tennis
- Track and field
- Volleyball
- Water polo

## Recreational Sports

This program exists on campus to provide opportunities in recreational athletics for the CLU campus community. CLU's current intramural program offers multiple fall and spring leagues including basketball, volleyball, innertube waterpolo, flag football, softball, and outdoor and indoor soccer. In addition, numerous tournaments are held annually including sand volleyball, 3-on-3 basketball, poker and golf. Most intramural sports teams are coed, creating a unique environment for all participants.

In addition to intramural leagues and tournaments, Recreational Sports also coordinates outdoor recreation opportunities for students – from large-scale camping trips (snowboarding in Brighton, Utah, and rock climbing in Lake Arrowhead) to hikes in the nearby Santa Monica Mountains or surf trips to the beach.

## Forrest Fitness Center

The Forrest Fitness Center is located in the Gilbert Sports and Fitness Center. All students are welcome to use the facility while they are attending the University. Students must bring their current student I.D. card to gain access to the facility and must have completed the online liability waiver for entry. Equipment includes free weights, weight machines and cardio equipment. The department also offers various fitness classes such as yoga, self defense, cardio hip hop, pilates and kickboxing.

## Recreational Opportunities

In addition to the formalized programs offered through CLU's intercollegiate and intramural sports programs, there are a variety of campus recreational facilities available to students. They include the tennis courts, gymnasium, pool, and hiking/mountain biking trails. Most athletic facilities at CLU are open for general use during specific hours only.

## Campus Ministry

You are a seriously connected individual: electronically, emotionally, socially, academically, spiritually, and globally. Just like you, Campus Ministry is connected. In fact we are in the business of making connections. So let's make some connections - between classroom and life, between faith and research, between service to humanity and vocation, between identity and purpose, between you and the God that loves you.

By design, practicing one's faith causes connections. Worship is one way to connect with God. Worship opportunities include University Chapel on Thursdays, Lord of Life Student congregation worship on Sunday, Common Ground evening Worship on Wednesdays all held within Samuelson Chapel. Prayer and Reflection is held on the Woodland Hills and Oxnard campuses midweek. Faith forming opportunities are available through small groups, service learning projects, and educational offerings to further your growth in faith.

The Meditation Chapel is open for prayer and contemplation. Prayer mats and resources from the world's major religions are available for your use. You are welcome to enter the Meditation Chapel through the outside door adjacent to the doors of Samuelson Chapel.

Campus Ministry endeavors to create a web of connections reminding us that we are connected to God and neighbor. ELCA Campus Pastors Scott and Melissa Maxwell-Doherty welcome all those who wish to share a common faith in God. Got faith? Bring it, regardless of your denominational, religious, or spiritual affiliation. You are invited and encouraged to express and explore your connection to a living God.

The Office of Campus Ministry is located in Samuelson Chapel.

## Support Services

California Lutheran University provides students with the necessary support services to enhance their educational experience and create an environment which is encouraging, caring and conducive to their success.

## Career Services

Career Services provides an array of individualized services and programs to students and alumni including assistance in choosing a major and career direction, graduate school advising, individualized counseling, workshops, and assistance with securing a job or internship.

The center offers many career assessments and an updated career library to help students and alumni make solid career decisions and consider career options. In addition, many online Web-based resources can be accessed off-site to conduct career and employer research.

Career Services posts all openings through [www.clupostings.com](http://www.clupostings.com). This site, which can only be accessed by students and alumni, includes an employer database with more than 8,000 employer contacts along with student Eprofiles that let the Career Services staff know what the student's career interests are. Profiles can be completed to activate a targeted email service for related jobs, internships, events and workshops.

Each year Career Services puts on various events including a Career Expo and Graduate School Fair. For a list of all services offered, visit the Career Services website at [www.callutheran.edu](http://www.callutheran.edu), which is updated each month.

## Professional Reference Service

### (Graduate School of Education ONLY)

The Professional Reference Service assists Graduate School of Education students and alumni by helping them prepare a professional reference presentation. The service will establish and maintain an individual professional reference file, which includes copies of teacher training experience data and recommendations of university instructors and supervising teachers.

At the request of students or alumni, these professional references are sent to prospective employers. The initial file setup fee is \$27, which includes two free mailings. The third and succeeding mailings cost \$6 each. The charge to fax a professional reference is \$8. The goal is to provide a 48-hour turn around. Count on 10 business days if all arrangements are done by mail. Contact the Graduate School of Education for more information.

## Multicultural and International Programs

The University recognizes the benefits of exchange between students of various cultures and backgrounds and encourages interaction among its diverse student body. It also recognizes that students of different cultures require services as they adjust to life at the University. These support services are provided by the Multicultural and International Programs Office located in the modular offices located between the Swenson Center and F Building.

Services which the Multicultural and International Programs Office provides to international students (on student or exchange student visas) include an international student orientation, personal and immigration advisement, cultural events, workshops, support of the international student club, international student mentors and coordination of a friendship program with American families in the community.

In addition, the office provides programs and services to students from underrepresented ethnic, religious and sexual orientation groups. Support services include a fall orientation reception, leadership training, mentoring, scholarship information, personal counseling and support of eight multicultural clubs (Asian Club & Friends, Black Students Union, Hawaiian Club, Latin American Student Organization, Hillel, Gay-Straight Alliance, Hip Hop Organization, and United Students of the World).

Cultural programs are provided throughout the year to highlight the contributions of people of color. A library of books and videos on multicultural themes is located in the office and is available to the entire CLU community.

## Center for Academic and Accessibility Resources (CAAR)

The CAAR office serves students and faculty at California Lutheran University and offers the following academic resources: Accessibility Resource Program (ARP), Students Taking Academic Responsibility (STAR) Program, and Testing Services. In an effort to assist all who want to maximize their academic achievement, CAAR provides individual consultations with Academic Specialists, Student Success Workshops, Language Proficiency Exams, CLEP testing, and referrals to on-campus tutoring centers and other campus services. With the academic assistance program STAR, CAAR provides proactive and developmental advising for all Conditionally Admitted, Probationary, and Elect-In students. In addition, CAAR facilitates and distributes Academic Difficulty Notices that monitor students' class progress and with ARP provides accessibility resources and accommodations for students with disabilities. CLU students and faculty are encouraged to contact the CAAR office for more information at (805) 493-3260 or visit our website at [www.callutheran.edu/caar](http://www.callutheran.edu/caar).

## Accessibility Resource Program

CLU is committed to providing equal educational opportunities to students with various documented disabilities who choose to self-identify. Students must register with the ARP program in order to request and receive disability-related accommodations.

Located within the CAAR office, the ARP staff works together with the student, administrators, and faculty to assure access to classrooms as well as on-campus programs and events. Reasonable accommodations and services are determined based on documentation and individual need. These include but are not limited to note-taker services, extended test time, alternative test location, books in alternative formats, adaptive technology lab, priority registration as well as resources and referrals to other campus services.

All services and accommodations are provided in a confidential manner that promotes independence, self-advocacy, and accountability. In addition, these services are provided in compliance with the Americans with Disabilities Act, Sections 504 and 508 of the Rehabilitation Act, university policies,

and state requirements. For more information, please contact the Accessibility Resource Coordinator at (805) 493-3878 or visit the website at [www.callutheran.edu/disabilities](http://www.callutheran.edu/disabilities).

## Student Support Services Program

Student Support Services (SSS) is a federally funded grant program that proposes to increase the retention and graduation rates of eligible participants. CLU students whose parents do not have a bachelor's degree, students whose families meet specific income requirements, and students with disabilities are eligible for SSS. Students who meet the eligibility requirements may apply to be a part of the program in the SSS office.

The program focuses on promoting academic excellence by providing holistic personalized services to students so they can make the most of their undergraduate education, graduate from a four-year university, and continue on to graduate or professional schools upon completing their degree. Program elements include: SOAR (Summer Orientation to Academic Resources) summer bridge program, Student Success Plans, academic planning, tutoring, student leadership program, cultural events, study skills seminars, graduate school workshops, FAFSA workshops, and personal/social counseling.

## Writing Center

The Writing Center, located in Pearson Library, helps students develop their writing abilities. Trained composition tutors are available to help students at all stages of the writing process. The staff at the center assists students in focusing, developing and organizing papers as well as polishing and editing the final draft.

## Health Services

Health Services is available to all full-time or residential CLU students. We provide treatment of injuries and illness, administer immunizations and preventive health services. For more complex medical issues, Health Services can help students access appropriate medical care in the community.

## Professional Care

A physician, physician assistant, and nurses help students meet their health care needs. The physician and physician assistant are in attendance at regularly scheduled hours. Consultation, physical exams, referrals, immunizations, and care of common ailments are available to CLU students. Prescription medications and lab tests are available at low cost and the charge for most office visits is \$10.

## Required Forms

Prior to entering CLU, students are required to submit a Health History Form which contains personal medical history as well as authorization for treatment. In addition, students are required to complete an Immunization Form. All undergraduate students are required to have two immunizations for Measles, Mumps and Rubella. In addition, on-campus students and athletes are required to have a Hepatitis B series, a tetanus shot within 10 years, and must complete the Tuberculosis Screening Form and the Meningitis Awareness Form.

All forms are included in the admitted student handbook that is mailed to incoming students. Forms may be downloaded at [www.callutheran.edu/health\\_services/policies/](http://www.callutheran.edu/health_services/policies/). Students whose forms are not completed and submitted to Health Services on time will be unable to register for the following semester.

## Student Counseling Services

Student Counseling Services (SCS) provides personal counseling in a new state-of-the-art facility. The counseling is free of charge for students and is completely confidential. Counseling is provided by licensed psychologists, post-doctoral fellows, and by pre-doctoral interns who work under the clinical supervision of fully licensed psychologists. SCS staff members have training and experience specifically tailored to addressing the concerns of university students.

The types of counseling provided at SCS include individual psychotherapy, groups, and couples therapy. SCS counselors help students cope with the full range of human concerns. Some of the challenges counselors assist students with are anxiety, depression, anger management, developmental issues, loneliness, family and roommate conflicts, other relationship problems, issues related to sexual identity development, suicidal feelings, substance abuse, and eating disorders.

## Campus Policies

### Standards of Conduct

The Standards of Conduct are part of the California Lutheran University commitment to holistic student development. It is the University's purpose to assist students in developing a personal set of values and ethics, managing emotions, making decisions and following through on commitments, becoming more independent, recognizing interdependence, and accepting the consequences of personal actions and decisions.

The Standards of Conduct were not established to be judgmental, but rather to ensure individual responsibility and an environment that contributes to a learning community.

The CLU community assumes that each student who enters the University possesses an earnest purpose; the ability to exercise mature judgment; the ability to act in a responsible manner; a well-developed concept of, and commitment to, honor, morality and integrity; and a respect for law and the rights of others. This assumption prevails unless a student negates it through misconduct.

The Standards of Conduct shall apply to conduct that occurs on university premises, at university-sponsored activities, and to off-campus conduct that adversely affects the university community and/or the pursuit of its objectives.

Each student shall be responsible for his or her conduct from the time of application for admission through the actual awarding of a degree, even though conduct may occur before classes begin or after classes end, as well as during the academic year and between the terms of actual enrollment (even if conduct is not discovered until after a degree is awarded). The Standards of Conduct shall apply to a student's conduct even if the student withdraws from the University while a disciplinary matter is pending.

Public postings or displays of information pertaining to and/or in direct violation of university policy are subject to disciplinary action. This includes but is not limited to websites, Facebook, MySpace, blogs, online messaging, and other sources on or off line.

The Vice President for Student Affairs/Dean of Students shall decide whether the Standards of Conduct shall be applied to conduct occurring off campus on a case-by-case basis.

The University adopts only such policies and procedures that seem necessary for the welfare of the educational community. Each student associated with California Lutheran University is expected to be familiar with and to follow all policies and procedures promulgated by the University.

Failure to abide by the policies and procedures as outlined in the Standards of Conduct may result in disciplinary action and sanctions.

## General University Policies

The following are prohibited:

- 1.1 Verbal abuse, harassment, intimidation, or in any way threatening the well-being of another individual.
- 1.2 The physical abuse of any person or conduct that threatens the health or safety of any person on or off university property.
- 1.3 Reckless, disorderly, rude, or lewd conduct on university property or at official university functions. Disorderly conduct includes but is not limited to: Any unauthorized use of electronic or other devices to make an audio or video record of any person while on university premises without his or her prior knowledge, or without his or her effective consent. This includes, but is not limited to, surreptitiously taking pictures or video of another person.
- 1.4 Attempted or actual theft or unauthorized possession of university property or other property on campus.
- 1.5 Attempted or actual burglary or attempted burglary of university property or other property on campus.
- 1.6 Attempted or actual theft or unauthorized possession of a university vehicle or other vehicles on campus.
- 1.7 Misusing, destroying, vandalizing, or attempting to destroy or vandalize university property or other property on campus.
- 1.8 Unauthorized entry or use of university facilities.
- 1.9 Failure to comply with the directions and/or requests of a university official (i.e., Campus Safety and Security, Area Residence Coordinator, Resident Assistant, or university employee or staff member) in the performance of his or her duty. This includes evasiveness, running, hiding and giving a false name.
- 1.10 Creating a fire, safety, or health hazard of any kind. This includes personal hygiene, cleanliness of shared living spaces and personal property, activating a fire alarm without the existence of a fire or a similar emergency situation, failing to evacuate the building during a fire alarm and/or abusing fire and safety equipment.
- 1.11 Creating excessive noise or disturbing the peace.
- 1.12 All forms of academic dishonesty. (See "Academic Policies")
- 1.13 Knowingly furnishing false information to the University, forgery, alteration or misuse of university documents, or university instruments of identification.
- 1.14 Disruption or obstruction of teaching, research, administration, disciplinary proceedings, public functions or other activities of the University, including interference with the freedom of movement of any member or guest of the university community.
- 1.15 Actions violating university policies by a student's guest.

1.16 Abuse of the Student Judicial System. (See "Student Judicial System")

## Alcohol and Other Drug Information

The specific guidelines governing the use of alcohol and other drugs on campus are included in the policy section of this handbook. However, it is important to understand the context within which those policies are created. The Drug-Free Schools and Communities Act of 1991 outlines clear expectations of universities in preventing the illegal use of drugs and alcohol on our campuses. In addition, the abuse of alcohol and other drugs continues to be a major problem on campuses across the country. The majority of traffic accidents, vandalism, suicides, physical abuse, fights and sexual assaults involve the use of alcohol or drugs by the individuals involved. Relevant sections of state and local statutes regarding alcohol and drugs are summarized below.

## University Policy on Alcohol

2.1 Campus standards do not allow alcoholic beverages, including empty alcohol containers on campus.

2.2 All persons in the presence of alcohol confronted by a university official (e.g., Resident Assistants, Graduate Assistants, Area Residence Coordinators, and Campus Safety and Security) will be documented for a policy violation. All alcohol and items containing alcohol will be disposed of and/or confiscated. Beer bongos and/or other paraphernalia used in the consumption of alcohol may be confiscated and/or destroyed.

2.3 Use or possession of alcohol by students off campus is subject to local laws and university discipline.

2.4 Undesirable behavior both on and off campus resulting from on- or off-campus use of alcohol is subject to university discipline.

2.5 Hosting groups or parties where large numbers of persons and/or large quantities of alcohol are present is a flagrant violation of the alcohol policy and is subject to increased sanctions.

2.6 Possession of a keg on campus is a flagrant violation of the alcohol policy and is subject to increased sanctions. The University reserves the right to confiscate and hold all kegs, party balls, taps and other alcohol paraphernalia.

2.7 No alcohol related, or similarly offensive posters, stickers, caps, lights, etc., may be displayed in residence hall windows or on the outside of doors. Bottle caps are not allowed on ceilings or walls.

2.8 Due to the risks involved to the health and safety of CLU students, competitive drinking events and games are prohibited both on and off campus. Planning or participating in such events will result in university disciplinary action for organizers and participants.

The following are exceptions to this policy:

1. Faculty and professional staff members who live on campus are allowed to have alcohol in their residence, but may not serve alcohol to or in the presence of undergraduate students.
2. Graduate students who live in university-owned residences segregated from undergraduate student housing are allowed to have alcohol in their residence, but may not serve alcohol to or in the presence of undergraduate students.
3. Alcohol is allowed and may be served in the President's Residence to guests other than undergraduate students at his or her personal discretion.
4. Communion wine at on-campus worship services is allowed.
5. Alcohol is allowed on campus and may be served at special events where specific permission is sought and granted by the President of the University (or designee). These special events include, but are not limited to, wedding receptions, dinners for Regents or other guests of the University, and receptions held on campus by external organizations.

Distilled spirits are not permitted at approved special events and all non-distilled spirits provided must be served by catering services holding license to do so. On-campus university residential facilities will not be considered for this exception.

## Alcohol Policy Violation Sanctions

Following is a list of the minimum sanctions for violations of the University Policy on Alcohol. The University reserves the right to impose further sanctions up to and including expulsion/dismissal from the University.

1st Violation Disciplinary warning, participation in an alcohol education program, students under 21 years of age are informed that parents/guardians will be notified if further violations occur

2nd Violation Residence hall probation, parents/guardians of students under 21 years of age notified

3rd Violation Residence hall suspension, university probation, parents/guardians of students under 21 years of age notified

4th Violation Suspension from the University, parents/guardians of students under 21 years of age notified

During each alcohol-related policy violation, the student is required to sign an Alcohol Policy Review Form acknowledging awareness of the university policy on alcohol, and acknowledging that future Alcohol Policy Violations will result in a minimum of the above outlined sanctions. Failure to sign a Policy Review Form in an alcohol-related incident may result in a Student Life fine and/or a disciplinary hold on the student's account.

## University Policy on Drugs

3.1 The use, possession, manufacture, cultivation or trafficking of any controlled substance, including but not limited to amphetamines, barbiturates, narcotics, LSD, marijuana and/or other hallucinogenic agents is a violation of state and federal laws and is a violation of California Lutheran University policy. Violation of the California Lutheran University policy on drugs can result in suspension, dismissal or expulsion from the University. All drugs and paraphernalia will be confiscated in order to be destroyed.

3.2 The use or possession of prescription drugs without a valid and current authorized prescription is a violation of California Lutheran University policy.

3.3 Paraphernalia includes any object that contains the residue of a controlled substance and any object that is used in the cultivation, manufacture, consumption or distribution of a controlled substance. Examples of paraphernalia include, but are not limited to, a marijuana pipe, bong or blow tube, a scale used for measuring quantities of an illegal drug, rolling papers, hookahs and hookah components. While these items can be used for legal purposes, they are prohibited because of their common misuse.

3.4 Being under the influence of prescription drugs without a valid and current authorized prescription or being under the influence of controlled substances is considered a violation of this policy.

3.5 No drug-related or similarly offensive posters, stickers, caps, lights, etc., may be displayed in residence hall windows or on the outside of doors.

3.6 California Lutheran University will not tolerate drug sales and/or distribution. California Lutheran University reserves the right to expel any student for the sale and/or distribution of any controlled substances or prescription drugs.

## University Policy on Smoking

4.1 In accordance with the City of Thousand Oaks Municipal Code and university standards, no smoking is allowed in any building on the CLU campus or within 20 feet of any entrance to any building.

4.2 Hookah and hookah components are strictly prohibited on campus.

4.3 Specifically designated smoking areas will be determined by the Area Residence Coordinator of each residence hall complex.

## University Policy on Student Harassment

The University seeks to create and maintain an academic environment in which all members of the community are free from harassment based on race, color, religion, age, national origin, disability, marital status, sexual orientation, or sex.

California Lutheran University espouses values that infuse the academic and residential life of its campus. Undergirding community life must be the awareness on the part of every member of the rights and human dignity of every member. Attitudes of condescension, hostility, role stereotyping and social or sexual innuendo weaken the health of the community.

Furthermore, harassment compromises the integrity of a liberal arts education because it makes the learning and working environment hostile, intimidating and offensive; it destroys opportunities for students to develop a strong, positive self-concept and the sense of self-confidence which is essential to living out the ideals of a liberal education.

In addition, persons who harass others compromise their own integrity and credibility. Consequently, no form of harassment will be tolerated on our campus.

## Harassment

Harassment refers to unwelcome behavior that is offensive, fails to respect the rights of others, and interferes with work, learning, living, or campus environment. Forms of harassment include, but are not limited to:

- 5.1a Verbal: Conduct such as suggestive comments, derogatory slurs, off-color jokes, threats, suggestive or insulting sounds, etc. Verbal harassment also entails using the telephone to harass others. This includes, but is not limited to, unwanted phone calls, hang ups, unwanted voice mail messages, obscene calls.
- 5.1b Nonverbal/Visual: Conduct such as derogatory or inappropriate posters, pictures, cartoons, faxes, emails, or drawings, suggestive objects or pictures, graphic commentaries, leering, obscene gestures.
- 5.1c Physical: Conduct such as unwanted physical contact including touching, interference with an individual's normal work or movement, assault.

# Sexual Harassment

Any sexual advances, requests or demands for sexual favors and other physical, verbal or visual conduct of sexual nature constitute sexual harassment when:

1. Such conduct has the purpose or effect of substantially interfering with an individual's work or academic performance, creating an intimidating, hostile or offensive work, learning, living, or campus environment; or
2. Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting the individual; or
3. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic program.

## The University Policy on Student Sexual Harassment includes, but is not limited to, the following behaviors:

5.2a Verbal: Conduct such as epithets, derogatory jokes or comments, slurs or unwanted sexual advances, invitations or comments, obscene phone calls, or voice mail or email messages, and threats and demands to submit to sexual requests as a condition of continued employment or academic advancement, or to avoid some other loss, and offers of preferential treatment in return for sexual favors and/or retaliation for having reported or threatened to report harassment.

5.2b Nonverbal/Visual: Conduct such as derogatory and/or sexuality-oriented posters, photographs, cartoons, drawings or gestures, exposure (e.g., "moonings," "streaking"), other lewd behaviors.

5.2c Physical: Conduct such as assault, unwanted touching, blocking normal movement or interfering with work or study.

Any student who feels subject to such harassment, or becomes aware of an actual or potential incident of sexual harassment, should report the incident immediately, either verbally or in writing, to any one of the following people:

- *Leanne Neilson*

Provost/Vice President for Academic Affairs

Administration Building

(805) 493-3145

- *Bill Rosser*

Vice President for Student Affairs/Dean of Students

(805) 493-3553

- *Susan Tolle*

Director of Human Resources

Welcome Center Building

(805) 493-3185

CLU will respect the complainant's right to confidentiality in both informal and formal procedures. The complainant will be supported and any attempted reprisals will not be tolerated.

Many additional policies exist for students at California Lutheran University. To access additional policies, go to [www.callutheran.edu/StudentLife](http://www.callutheran.edu/StudentLife) and follow the link to the Online Student Handbook. To request a paper copy of the policies, contact the Office of Judicial Affairs at [judaaffairs@callutheran.edu](mailto:judaaffairs@callutheran.edu) or (805) 493-3220.

## Residence Life

The University is primarily a residential institution with more than 1,300 full-time undergraduate students residing on campus. The residential experience is considered a crucial part of students' education, as significant learning occurs through peer interaction in the residence halls.

## Requirements

All full-time undergraduate students are required to reside on campus through their junior year at CLU. Seniors have the option of living off campus. However, as with all students, once a senior has signed a housing contract, it is expected that the full term of the contract will be honored (one academic

year) or there may be financial penalties for breaking the contract. The housing contract includes the meal plan. Room and board are not separable except for residents of apartments and university houses.

Exceptions to the requirements to live on campus would normally fall into one of the following categories:

1. Married students
2. Students living with their parents within a 30-mile radius
3. Graduate and ADEP students
4. Seniors
5. Students who are 23 years of age or older

Note: Students who are seeking an exception to the housing or meal plan requirements must meet with the Housing Review Committee through the Residence Life Office. Students who are not granted an exception to the housing requirements who move off campus will be penalized. This penalty will consist of being charged for room and board for the first semester and loss of university-funded financial aid the subsequent semester.

## Housing Contracts

Student housing contracts are for the full academic year. A student who occupies a room in university housing will be held responsible for that room and the stipulated charges until the end of the academic year unless the student is expressly released from the contract by the Housing Review Committee.

## Room Applications and Assignments

Housing contracts are submitted online to the Residence Life Office, which is responsible for the assignment of rooms and approval of room changes during the year.

## Student Responsibilities

Residential students are expected to uphold CLU's high standards. Each student is responsible for contributing to the positive community environment by being courteous, considerate, honest and ethical. When individuals do not accept these responsibilities, the university administration may take appropriate action for the benefit of the community.

Additionally, students requesting to live on campus are expected to be aware of and abide by all the policies of the University as stated in the University Catalog and Standards of Conduct. These policies include but are not limited to: no alcohol or illegal drugs on campus; quiet hours; and a general respect for the rights of other residents.

By accepting university housing, students agree to observe all housing regulations and respect university property. When an individual is suspended or expelled from a residence hall, fees are not refunded.

## Graduate Housing

CLU provides fully furnished private bedroom residence hall rooms for graduate students in Grace Hall. These rooms are available on a first-come first-served basis. Please visit our website for more information or a virtual tour of the room. Students may request housing by filling out the Graduate Student Housing application.

## Residence Hall Vacation Schedule

All first year residence halls are closed during the winter holiday. Campus Dining closes after the evening meal on the last day of classes prior to the session break. Food service is not available during various holidays, winter break and spring break. The services and facilities reopen the afternoon before the resumption of classes.

## Student Mail

All correspondence will be sent to students' campus mailboxes outside the Mail Room. The student mailing address is:

Student Name

101 Memorial Parkway # \_\_\_\_\_

Thousand Oaks, CA 91360

# Academic Programs

## Undergraduate

California Lutheran University offers 36 major and 34 minor programs of study within the University's three schools:

## School of Management

## Graduate School of Education

## College of Arts and Sciences

There are four divisions and 21 departments within the College of Arts and Sciences. The divisions and departments are as follows:

### Humanities Division

- English Department
- History Department
- Languages & Cultures Department
- Philosophy Department
- Religion Department

### Creative Arts Division

- Art Department
- Multimedia Department
- Music Department
- Theater Arts Department

### Natural Sciences Division

- Biology Department
- Chemistry Department
- Computer Science Department
- Exercise Science Department
- Geology Department
- Mathematics Department
- Physics Department

### Social Sciences Division

- Communication Department
- Criminal Justice Department
- Political Science Department
- Psychology Department
- Sociology Department

Preprofessional programs are also offered in selected areas of study.

## Undergraduate Majors and Minors

- Accounting
- American Studies<sup>2</sup>
- Art<sup>1</sup>

- Asian Studies<sup>2</sup>
- Biochemistry and Molecular Biology
- Bioengineering<sup>1</sup>
- Biology<sup>1</sup>
- Business Administration<sup>1</sup> (Traditional)
- Business Management (ADEP)
- Chemistry<sup>1</sup>
- Communication<sup>1</sup>
- Computer Information Systems<sup>1</sup>
- Computer Science<sup>1</sup>
- Criminal Justice
- Economics<sup>1</sup>
- English<sup>1</sup>
- Environmental Science
- Environmental Studies<sup>2</sup>
- Ethnic Studies<sup>2</sup>
- Exercise Science
- French<sup>1</sup>
- Geology<sup>1</sup>
- German<sup>1</sup>
- Global Studies<sup>1</sup>
- History<sup>1</sup>
- Interdisciplinary
- International Business<sup>2</sup>
- Legal Studies<sup>2</sup>
- Liberal Studies (Education)
- Marketing Communication
- Mathematics<sup>1</sup>
- Multimedia<sup>1</sup>
- Music<sup>1</sup>
- Music Production
- Philosophy<sup>1</sup>
- Physics<sup>1</sup>
- Political Science<sup>1</sup>
- Psychology<sup>1</sup>
- Religion<sup>1</sup>
- Science<sup>2</sup> (Applied Scientific Computing)
- Sociology<sup>1</sup>
- Spanish<sup>1</sup>
- Theater Arts<sup>1</sup>
- Theology and Christian Leadership
- Women's Studies<sup>2</sup>

- 1 Minor Also Offered.
- 2 Minor only offered.

## Preprofessional Programs

### Church Vocations

CLU offers courses that prepare students for ordained and non-ordained ministries in the various denominations of the Christian church. Students may study to become church educators, musicians, youth directors, administrators and ordained ministers. Students could major in Theology and Christian Leadership and choose the emphasis area relevant to their vocational goals *or* they could choose a major in an area appropriate to their specific vocational choice and minor in Religion with a Church Vocations emphasis. For example, a student interested in becoming a church organist could major in Music and minor in Religion with a Church Vocations emphasis or major in Theology and Christian Leadership with a specialization in Worship and Music and perhaps also add a Music major with emphasis in organ performance. Advisers can help students choose the option which best suits their particular needs.

### Preseminary

CLU has several program options that are appropriate for students preparing to go to seminary, including two Religion majors and three Religion minors, designed to give students a solid grounding in religion and other cognate disciplines that will prepare them for whatever seminary they might later choose to enter. Students considering study at a theological seminary – even if that seems only a remote possibility at present – are encouraged to consult with members of the Religion Department and/or one of our campus pastors.

### Associate in Ministry

An Associate in Ministry (AiM) is a rostered lay person who is certified by the Evangelical Lutheran Church in America and appointed to specific ministries. Certified ELCA AiMs must meet the following basic criteria related to their area of specialty:

1. a bachelor's or master's degree in a field appropriate to the position;
2. at least 20 credits in studies focusing on the Christian/Lutheran tradition, including Bible, theology, confessions and church history;\*
3. at least one year of successful, supervised field experience in the area of specialty;\*
4. professional certification where appropriate.

\* Fulfilled by completing either the general religion minor or the religion minor with an emphasis in church vocations.

### Prelaw

Law schools ordinarily require a bachelor's degree for admission. Students considering attending law school may major in any subject but should consult a prelaw adviser for information about preparing for the Law School Aptitude Test (LSAT). For further information, contact the Dean of the College of Arts and Sciences who will refer you to an adviser.

### Premedicine/Health Related Fields

Medical, dental, physical therapy, optometry and other health-related professional schools ordinarily require a bachelor's degree as a prerequisite for admission. Although most schools do not require a specific undergraduate major, they do require a set of core science courses (one to two years of biology, two years of chemistry, one year of physics and one year of math/statistics). Many students find that an interdisciplinary major is more appropriate for their interests.

In addition to an adviser for their major, students should contact the chairperson of either the Biology Department or the Chemistry Department who will recommend an adviser for their specific interest. The program of study undertaken by a preprofessional student should satisfy both CLU's graduation requirements and the specific requirements of the health-related program.

Students interested in attending graduate school in physical therapy may also major in Exercise Science with a Health Professions concentration. For more information, see Steven Hawkins in the Exercise Science Department.

### Adult Degree Evening Program (ADEP)

The Adult Degree Evening Program is a bachelor's degree program designed to meet the needs of part-time returning adult students who wish to complete their degree while juggling the time demands of work, family and other commitments. Classes are held in the evening to accommodate the working adult student.

The intensive program calendar consists of four 11-week terms per year making it possible to earn the degree at an accelerated pace. ADEP candidates usually are at least 25 years of age and must have a minimum of 12 transferable credits and substantial work experience.

Degrees are offered in accounting, business management, computer information systems, computer science, liberal studies, organizational leadership, and psychology. Classes for all majors are offered at the main campus in Thousand Oaks. Organizational leadership and psychology are offered at

the Oxnard campus as well. ADEP classes are offered in Woodland Hills for those students interested in Accounting, Business Management, and Organizational Leadership.

For additional information, check our website at [www.callutheran.edu](http://www.callutheran.edu) or call (805) 493-3325.

## Graduate Programs

Graduate degrees and credential programs are offered both on campus and at off-campus centers. Programs are designed to accommodate adult students who are employed full time and are pursuing course work on a part-time basis. Classes are scheduled at times and locations convenient to the working adult. Complete program descriptions and university policies are included in the Graduate Studies catalog.

- **Doctorate in Educational Leadership**
- **Doctorate in Higher Education Leadership**
- **Doctorate in Clinical Psychology**
- **Master of Arts**
  - Educational Leadership
  
- **Master of Education in Teacher Leadership**
- **Master of Science**
  - Clinical Psychology
  - Computer Science
  - Counseling and Guidance (with specializations in):
    - Pupil Personnel Services
    - College Student Personnel
  
  - Counseling Psychology (with an emphasis in):
    - Marital and Family Therapy
  
  - Education of the Deaf
  - Economics
  - Information Systems and Technology
  - Special Education
  
- **Master of Business Administration** (with professional tracks in):
  - Arts Management and Administration
  - Econometrics
  - Entrepreneurship
  - Finance
  - Information Technology Management
  - International Business
  - Macroeconomics
  - Management and Organizational Behavior
  - Marketing
  - Nonprofit and Social Enterprise
  - Sustainable Business
  
- **Master of Business Administration in Financial Planning**
- **Master of Public Policy and Administration**

## Credentials

- **Teaching**
  - Preliminary Multiple or Single Subject
  - Clear Multiple or Single Subject

- **Administrative Services**
  - Preliminary
  - Clear
- **Pupil Personnel Services**
  - Clear (School Counseling and Child Welfare and Attendance\* Authorizations)

\* Must complete PPS at CLU to be eligible for CWA Authorization

- **Education Specialist**
  - Preliminary (Deaf and Hard of Hearing Specialty)
  - Clear (Deaf and Hard of Hearing Specialty)
  - Preliminary (Mild to Moderate, Moderate to Severe Specialties)
  - Clear (Mild to Moderate, Moderate to Severe Specialties)
  - Level II (Mild to Moderate, Moderate to Severe Specialties)

## Certificates

- Financial Planning
- Post MBA Certificate Program Series

## Authorizations

- Autism
- Computer Concepts
- Reading

## Graduate Catalog

A catalog of graduate programs and class offerings may be obtained by contacting:

California Lutheran University  
 Graduate and Adult Programs  
 60 West Olsen Road #2300  
 Thousand Oaks, CA 91360-2787  
 (805) 493-3127  
 clugrad@callutheran.edu  
 www.callutheran.edu

## Special Academic Opportunities

### Honors

The mission of the CLU honors program is to serve excellence in education by enhancing opportunities for exceptionally motivated undergraduate students. We encourage intellectual exploration and experimentation by involving students in an intensive study of works that bridge diverse historical contexts, cultural settings and fields of knowledge.

Balancing tradition and innovation, the CLU honors program is dedicated to helping students to clearly articulate their interpretations, analyses and evaluations of works ranging from Dante to Darwin and beyond.

By discovering or creating links between areas of knowledge and ways of knowing that are currently separated by disciplines and departments, the honors program encourages students to think holistically and critically about these works and the global issues they illuminate.

The curriculum includes Humanities Tutorial (a yearlong exploration of classic works), At Home in the Universe (a team taught approach to the natural sciences) and special small seminars on a wide range of topics from international film to the role of music in the civil rights movement. Students will also have the opportunity to engage in faculty-mentored research projects.

## Humanities Tutorial

The Humanities Tutorial prepares students to become informed, careful and independent thinkers in the humanities by laying a foundation of cultural knowledge and academic skills.

The tutorial begins with an in-depth, one-semester study of the origins of Western culture in Greek literature and philosophy and continues the second semester with a study of contemporary themes and concerns both in Western and non-Western thought.

In addition to providing practice in the skills of analysis, argument, and critical and reflective interpretation, the course aims to familiarize students with the intellectual ideal of illuminating the new by understanding the old.

The Humanities Tutorial is a one-year team-taught interdisciplinary program for which students receive eight credits (four credits each semester).

The current tutorial meets the philosophy perspective requirement and the freshman English requirement. Students who received a grade of 4 or 5 on the advanced placement test in English will also satisfy the literature requirement. Students are urged to enroll in Religion 100 and either History 101 or History 102.

This challenging program is offered to qualified freshman or sophomore students regardless of major. Initial screening is made by the Admission Office, with final acceptance being determined by the instructors. Students are selected on the basis of stated interest, indication of academic initiative and academic promise as suggested by GPA and SAT scores.

## Interdisciplinary Major

When a student's career or academic goals are not best served by a traditional major, it is possible to devise a major which spans more than one academic discipline. Courses, independent studies and experiential learning can be combined into a program which meets the student's needs. For more information, see the interdisciplinary major listing.

## Internships

An internship is an upper division planned and supervised field experience designed to apply academic knowledge to an actual work environment. The 492 course number is used in all departments to indicate internships.

Internship credit must have educational benefit and be a genuine work experience. It involves the application of learned skills, the integration of theory and practice, the assessment of education as it relates to the specific work experience, and examination of the nature and values of the organization or agency that is the setting of the work experience.

Credit is not given for on-the-job work, but for the demonstrated reflection and learning. Students work with a faculty adviser, an on-site supervisor and the Career Services Center. Course grade (Pass/No Credit only) is based on job performance and evidence of learning.

Internships must be related to a student's major. Freshman students are not eligible for internships. Traditional undergraduate students may receive a maximum of four units in a semester (or summer) and may take a total of no more than eight credits in internships. ADEP students may receive a maximum of two units in a semester (or summer) and may take a total of no more than eight credits in internships.

Credit for each course is determined by the instructor and department chair. Normally, five hours of on-site work per week is required for each semester credit (except for summer), and the related activities and evaluation are proportionate to the credit granted. Grade (Pass/No Credit only) is determined by the instructor. A 2.5 GPA is required for eligibility.

Students must prepare an Internship Application (available in the Career Services Center). Applications must be approved by the instructor, the on-site supervisor, the department chair and the Registrar.

Approved course applications must be submitted to the Registrar's Office no later than the last day to add a class. ADEP students need to contact and submit applications to the ADEP Office.

## Continuing and Professional Education

The Continuing and Professional Education Office provides opportunities for continued learning through courses, programs and events that are not normally part of either an undergraduate or graduate degree program.

These opportunities are designed for professional training and personal enrichment. Formal admission to the University is not required for enrollment, and there is no limit to the number of courses a person may take.

Courses and certificate programs are primarily designed for educators and business professionals, but they also include test preparation, computer technology, violin and bow making, and other topics of general interest.

For additional information, contact the Continuing and Professional Education Office.

## Credit by Examination

Students in good standing may challenge for credit most courses listed in the CLU catalog upon the approval of the department chair and academic dean.

Students may not challenge for credit a course in which they previously have received a grade of F or NC (No Credit).

Application must be made through the Registrar's Office, and signatures of the department chair and instructor must be obtained. Credit earned by examination will be graded P (Pass).

Fees for examinations vary and will be paid in advance of the examination. Credit earned is recorded at the end of the term in which the examination is taken.

NOTE: A maximum of 32 credits by exam may be applied to a bachelor's degree; eight upper division units can be included in this total. This limit applies to the sum of all credits earned by exam, including CLEP and Advanced Placement exams.

NOTE: Thirty of the final 40 credits must be completed in residence at CLU. Credits by exam do not count as residency credits.

## Independent Study Courses

Independent Study opportunities are available for students to work independently, in consultation with a faculty member, on in-depth research in particular areas of academic interest.

Students wishing to undertake an Independent Study must have attained junior status (58 units of credit) and be in good academic standing.

Traditional undergraduate students may earn no more than six units of Independent Study in any given semester or six units during summer sessions and may count no more than 16 units of Independent Study credit into the number of units required for the bachelor's degree.

ADEP students may earn no more than four units of Independent Study in any given semester and may count no more than eight units of Independent Study credit toward the total number of units required for the bachelor's degree.

Independent Study cannot be used to fulfill a core requirement. Students must have their Independent Study contract approved and signed by the sponsoring professor, the chair of the department in which the study is taken and the Registrar on or before the final date to add a course. Forms for registration and the Independent Study contract form are available in the Registrar's Office.

## Summer Session

Two terms of six weeks each are offered in the summer session. Three summer terms are offered for educators. The curriculum is designed for undergraduate students wishing to accelerate their progress or make up work and for teachers fulfilling credential requirements. The normal course load for a summer term is two courses or six to eight credit hours. Students may not take more than four courses or 16 credits over the entire summer session. Exceptions to this policy must be approved in writing by the Registrar prior to registration.

A complete bulletin for the summer session is printed each spring. Copies may be obtained by writing to the Director of Summer Session.

## Reserve Officers Training Corps Opportunities

Students who qualify may enroll in either the Air Force ROTC program or the Army ROTC program. CLU has agreements with the University of California, Los Angeles for Air Force ROTC (see below) and with the University of California, Santa Barbara for Army ROTC. CLU students may enroll in courses at those institutions. Academic units earned in the ROTC programs are counted as elective credits toward graduation at CLU. For further information on ROTC and possible scholarships, please use the contact information below.

### Air Force Reserve Officers Training Corps (AFROTC)

Email: [afrotc@ucla.edu](mailto:afrotc@ucla.edu) (<http://catalog.callutheran.edu/undergraduate/Local%20Settings/Temporary%20Internet%20Files/Content.Outlook/OY37K4Y2/afrotc@ucla.edu>)

Telephone: (310) 825-1742

Fax: (310) 825-3055

Website: [www.afrotc.ucla.edu](http://www.afrotc.ucla.edu) (<http://www.afrotc.ucla.edu>)

Air Force ROTC provides selected students the opportunity to develop those attributes essential to positions of high responsibility as commissioned officers in the U.S. Air Force. This includes understanding Air Force history, doctrine, operating principles, and national security policies, demonstrating the ability to apply modern principles of management and human relations in the Air Force environment, and mastering of leadership theory and techniques. Students must demonstrate dedication to their assignments, willingness to accept responsibility, and the ability to think critically and communicate with clarity and precision.

## Scholarships

ROTC Scholarships are awarded on a competitive basis to U.S. citizens regardless of parents' income. Scholarships provide tuition, a book allowance, fees, and a tax-free monetary allowance between \$300 and \$500 per month during the academic year. Applications for scholarships may be obtained at <http://www.afrotc.com> or by calling (310) 825-1742.

## Undergraduate Study

The four-year program is available to first-term freshmen and those full-time students with at least three and one half years of undergraduate and/or graduate study remaining. The program consists of an initial two-year General Military Course, or GMC (Aerospace Studies 1A, 1B, 1C, 20A, 20B, and 20C), followed by a two-year Professional Officer Course (POC) described under Two-Year Program. GMC participation requires one hour of academic class and two hours of leadership laboratory each week during the academic year. Students incur no military obligation for GMC participation unless they qualify and accept an Air Force ROTC Scholarship during or after their sophomore year. Students who complete GMC and wish to enter POC attend a four-week field training course the summer following GMC completion. At field training, students are provided meals, quarters, clothing, and travel and incidental expenses. Subjects covered at field training include junior officer training, aircraft and aircrew orientation, career orientation, survival training, base functions, Air Force environment, and physical training.

## Institutes and Centers

CLU has the following centers and institutes that enhance scholarly activities, research opportunities and community outreach.

### California Institute of Finance

For more information, contact the School of Management

(805) 493-3360

### Center for Academic Service Learning

For more information, contact Helen Ahn Lim

(805) 493-3550

### Center for Economic Research and Forecasting

For more information, contact the School of Management

(805) 493-3360

### Center for Equality and Justice

For more information, contact Anita Nack

(805) 493-3438

### Center for Faith and Culture

For more information, contact Guy Erwin

(805) 493-3239

### Center for Leadership and Values

For more information, contact the School of Management

(805) 493-3360

### Center for Teaching and Learning

For more information, contact Joan Wines

(805) 493-3277

### Community Counseling Services

For more information, contact the CLU MFC Center

(805) 493-3390

## Study Abroad

In keeping with CLU's mission to "educate leaders for a global society," the Study Abroad Center assists students with incorporating an international dimension into their college experience. By spending a summer, semester, or year abroad and participating in faculty-led study travel courses, students can enrich their academic and personal portfolio and gain global perspective.

Financial aid is available for many destinations, and with a wide variety of CLU programs, partner-affiliate programs and external programs to choose from (both international and domestic), students can study almost anywhere in the world.

While many programs offer classes in English, studying abroad is an excellent way to gain proficiency in another language. Courses taken at CLU's partner institutions count toward the University's residency requirement and allow students to continue to make progress toward their degree. They also can fulfill major, minor and core requirements with departmental approval.

In order to participate, students must be in good academic and social standing, complete approval paperwork with the Study Abroad Center, and attend the Pre-Departure Orientation. The Study Abroad Center guides students throughout the process.

Since space is limited for some programs, students are advised to begin planning more than a year in advance and to visit the Study Abroad Center during their freshman year to research possible destinations. Students should also work closely with their faculty adviser and map out a tentative four-year plan that includes classes to be taken abroad. Additional information is available at [www.callutheran.edu/studyabroad](http://www.callutheran.edu/studyabroad).

## Academic Policies

### General Academic Policies

#### Student Responsibility

It is the students' responsibility to take the initiative to plan their programs and to meet graduation requirements in accordance with the university catalog. Advisers will assist students in the task.

#### Student Access to Records

##### Family Educational Rights and Privacy Act of 1974 (as amended)

Annually, California Lutheran University informs students of their rights under the Family Educational Rights and Privacy Act of 1974, as amended (FERPA, also known as the Buckley Amendment).

The Act was designed to protect the privacy of education records, to establish the right of students to inspect and review their education records and to provide procedures to correct inaccurate or misleading information in those education records through the hearing process. Students also have the right to file complaints with the FERPA office concerning alleged failures by the institution to comply with the Act.

The Act allows students the right to inspect their education records and provides that colleges and universities will maintain the confidentiality of those records.

At CLU, no one outside the institution shall have access to a student's education records without the student's written consent with the exception of parents who claim the student as a dependent for tax purposes. The University will inform parents if there has been a change in the student's academic standing, specifically if the student is placed on probation or suspension or is removed from those statuses. A copy of the full text of the law is available in the Registrar's Office.

CLU's FERPA policy allows university employees to release Directory Information without the student's written permission. Items defined as Directory Information at CLU are the following:

- name
- address
- email address
- campus residence hall
- campus box number
- campus telephone number
- date/place of birth
- dates of attendance
- degree date
- degrees awarded or anticipated
- honors
- major

- previous institution most recently attended
- participation in recognized campus activities or sports
- height and weight of members of athletic teams

The only circumstances under which CLU will disclose other than Directory Information is in cases of emergency or personal safety and to notify parents of changes in their student's academic standing. In all other cases, the institution may release only the items identified above.

Students have the right to withhold Directory Information completely by filing a request with the Registrar's Office. The request is in effect through the end of an academic year and must be re-filed annually.

At CLU, a school official may access education records as long as they have a legitimate education interest. A school official has a legitimate education interest if the official needs to review an education record in order to fulfill his or her professional responsibility. A school official is a person employed by CLU in an administrative, supervisory, academic, research or support staff position (including law enforcement personnel and health staff); a person or company with whom CLU has contracted (such as an attorney, auditor, collection agent, degree conferral or enrollment verification processing agent, placement sites for internships or other similar placements); a person serving on the Board of Regents; a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks; consultants, volunteers or other outside parties to whom the University has outsourced institutional services or functions that it would otherwise use employees to perform. As allowed within FERPA guidelines CLU may disclose education records without consent to officials of another school, upon request, in which a student seeks or intends to enroll. Questions about access should be directed to the Registrar.

## Statement on Academic Freedom

It is fundamental to the health of an academic institution and ultimately to the health of a society at large that individual persons and groups of persons exercise their responsibility and freedom to search for the truth and to speak the truth as it is discovered. In a collegial community, the corporate person of the university institution and the persons of the faculty, administration and the student body bear mutual responsibility to exercise professional competence and to extend to one another the trust and respect which foster an environment for the exercise of academic freedom.

California Lutheran University endorses the principles of academic freedom. CLU's complete policy on academic freedom is contained in the Faculty Handbook.

## Statement on Academic Honesty

The educational programs of California Lutheran University are designed and dedicated to achieve academic excellence, honesty and integrity at every level of student life. Part of CLU's dedication to academic excellence is our commitment to academic honesty. Students, faculty, staff and administration share the responsibility for maintaining high levels of scholarship on campus. Any behavior or act which might be defined as "deceitful" or "dishonest" will meet with appropriate disciplinary sanctions, including dismissal from the University, suspension, grade F in a course or various forms of academic probation. Policies and procedures regarding academic honesty are contained in the faculty and student handbooks.

## Attendance at Classes

Regular attendance at all classes is essential. Students are expected to be punctual, do the work assigned and not be absent without good cause.

## Second Degrees

Students may earn a second bachelor's degree by completing all general and major requirements of the second degree. At least 75 percent of the required courses in the major for the second degree must be unduplicated with any other major or minor from the first degree. All academic policies stated in the catalog must be met by both the first and second degree, if the second degree is completed simultaneously or sequentially. However, no more than one Bachelor of Arts degree and one Bachelor of Science degree will be awarded. Students pursuing a single degree with a double major must select majors within the same degree program. Honors may be granted for both degrees.

## Student Leave of Absence

The purpose of the Student Leave of Absence is to enable students who leave the University for a period of time with an intention to return to CLU to receive timely communications and other consideration accorded continuing students. The leave may be requested for up to one year. Student Leave of Absence request forms may be obtained from the Registrar's Office.

## Registration Information

### Course Load

Requirements for graduation are measured in terms of semester credit hours. Normally, each credit hour earned will require one hour of class time per week for 14 weeks during the semester. Students are expected to spend two to three hours in preparation for one hour of class time. Most courses are assigned four (4) or three (3) credits. A full-time undergraduate student is one who carries 12 or more credits per semester. To graduate in four years, students must complete an average of 15.5 credits each semester. (Refer to the Adult Degree Evening Program section of the catalog for enrollment regulations applicable to ADEP students.) A typical semester load is 15 to 16 credits. Special permission is necessary to carry a load of more than 18 credits per semester. A fee will be charged for each credit beyond 18. (See section on University Costs.)

## Registration Procedures

Students must register in person prior to the beginning of each semester. Registration procedures are outlined in the class schedule bulletins which are available on the Registrar's Office Web page.

To be officially enrolled in class, students must have the program approved by their adviser, have their financial standing cleared by the Business Office and submit their signed registration form to the Registrar or complete their registration online.

## Course Additions

Students may add courses during the first two weeks of the semester. Students may not add courses after the second week of the semester. When a student is given permission to add a closed class, it is the student's responsibility to take an add form, signed by the instructor, to the Registrar's Office. It is not possible to add a closed class online.

## Withdrawal from Courses and Withdrawal from the University

Withdrawal means withdrawing from one or more courses or separation from the University for the remainder of the semester. The Registrar provides the proper withdrawal forms which incorporate all the necessary procedures to clear the records at the time of withdrawal. Proper withdrawal protects the student's record, which remains on file in the Registrar's Office.

1. Students may drop courses or withdraw from the University through approximately the 10th week of the semester (specific date listed in Academic Calendar) with a grade of W.
2. After the last date to withdraw, students may not officially withdraw from classes or from the University, except for medical reasons. Medical withdrawal forms are available through the office of the Vice President for Student Affairs.
3. With the privilege of admission to California Lutheran University, students accept the responsibility of clarifying the records (including financial records) if they withdraw from a course or from the University before the end of the semester.
4. Students who do not complete a course and do not officially withdraw from the University will receive a grade of UW for the semester (counted equivalent to a grade of F in the GPA).

Note: Academic withdrawal deadlines do not correspond to tuition reduction deadlines. Tuition reduction policies are outlined in the section on University Costs. The financial obligation for withdrawing from the University is usually severe.

## Audit

Students may audit a lecture course upon the approval of the instructor. They will earn no credit and receive no grade and will not be required to complete assignments or take examinations. They may not claim credit or challenge the course for credit at a later date. Adequate attendance for recording of AU on the student's permanent record must be verified by the instructor. The fee for audit is listed in the section on University Costs. A change from credit to audit may not be made after the last day to withdraw without academic penalty. A change from audit to credit may not be made after the last day to add a class.

## Repeated Courses

Students may repeat a course once, unless otherwise specified, regardless of the grade received. Credit for the course will be given only once and all repeated courses must be taken at CLU. In calculating the GPA, a grade of C- or below will be replaced by the higher grade. Otherwise, both grades will be factored into the GPA. In either case, both grades will remain on the transcript. CLU courses are subject to the repeat policy; courses not subject to the repeat policy include all independent studies, field studies, performance activities and selected topics courses. A course taken at CLU must be repeated at CLU in order for a grade below C- to be removed from the GPA. Repeated courses are not included in the residency requirement.

## Transfer Credits

CLU accepts transfer courses from regionally accredited institutions. Students may transfer a maximum of 70 semester credits from a junior/community college. Credit is generally given for those courses deemed equivalent or substantially equivalent to CLU courses. Equivalency is normally determined based on information obtained from catalogs, course syllabi and other materials. However, baccalaureate level transfer courses may be used to fulfill elective credit.

Students may petition to have work from non-regionally accredited institutions accepted. Course work will be evaluated on a case-by-case basis. The petition must include a course syllabus for each petitioned course. Credit will only be granted for course work deemed to be substantially equivalent to CLU courses.

Currently enrolled students who plan to transfer additional credits from another institution must have prior approval by the Registrar.

A maximum of 20 semester credits of transfer online, correspondence and/or extension work may be counted toward the degree. Correspondence and extension work may not be included in the major. See the following section on Limitations on Credit for further information.

Students are required to submit transcripts for all other institutions which the student has attended. The Registrar determines the acceptability of other post-secondary level courses; faculty in the respective majors determine whether transfer credit will meet specific major/minor requirements.

## Limitations on Credit

The number of credits applied toward any baccalaureate degree may be limited by the following:

1. 30 of the final 40 credits must be completed in residence at CLU. Credits by exam do not count as residency credits.
2. Credits used to meet the requirement for a bachelor's degree may not be used for a credential or master's degree.
3. No more than three semester credits combined of physical activity (ACTV) and intercollegiate athletics (ATHL) may be counted toward the 124 credits required for graduation. (Exercise Science majors may count no more than seven credits.)
4. Intercollegiate athletics (ATHL) courses may be taken once for credit whether transferred to CLU or completed at CLU. These courses meet the activity requirement.
5. Credit in career/work experience may be earned at CLU, but no more than eight credits are applicable toward the minimum requirements for the degree. Students may receive a maximum of four units in a semester (or summer).
6. No Core-21 (general education) requirements or any portion of the major (including required supporting courses) may be satisfied by courses graded P/NC, except courses offered with only P/NC grading.
7. A maximum of 20 semester credits of transfer online, correspondence and/or extension work may be counted toward the degree. Correspondence and extension work may not be included in the major. To be accepted, the correspondence and extension course work must be applicable to a bachelor's degree at the granting institution. Approved transfer online courses are only those that are approved by the department in which credit will be granted and which include proctored exams. Approved online courses accepted in transfer may be included in the major.
8. A maximum of 32 credits by exam may be applied to the degree; eight upper division units can be included in this total. Credit by exam includes, but is not limited to, institutional exams, CLEP and Advanced Placement (AP) exams.
9. A total of 40 combined credits obtained from credits by exam and online/correspondence may be applied toward the degree.
10. At least 75 percent of the required courses for a major or minor must be unduplicated with any other major or minor.
11. Traditional undergraduate students may earn no more than six units of Independent Study in any given semester or six units during summer sessions and may count no more than 16 units of Independent Study credit into the number of units required for the bachelor's degree.
12. ADEP students may earn no more than four units of Independent Study in any given semester and may count no more than eight units of Independent Study credit toward the total number of units required for the bachelor's degree
13. A single course may satisfy a maximum of four (4) graduation or program requirements.
14. Petitions for exceptions to policy must be made within **one year of the missed deadline for the occurrence** requiring an exception. This limit includes petitions for such requests as late adds and late drops of courses.

## Graduation

One year prior to their expected graduation date, students must file an Application for Degree form at the Registrar's Office and submit major/minor checklists. A minimal commencement fee must be paid at the time of application for degree.

## Transcripts

Official transcripts of a student's complete record must be requested on-line through <http://iwanmytranscripts.com>. The transcript charge is \$5 per copy for an official transcript. Students who attended the University since Fall 1989 may request either paper or digital copies. Procedures for requesting a transcript may be found on the Registrar's Office website at [www.callutheran.edu/Registrar](http://www.callutheran.edu/Registrar).

The University reserves the right to withhold grade reports or transcripts if the student has unmet financial obligations to the University.

## Classification of Students

**Freshman** - has earned fewer than 30 semester credits.

**Sophomore** - has earned at least 30 semester credits.

**Junior** - has earned at least 60 semester credits.

**Senior** - has earned at least 90 semester credits.

**Special** - refers to students who are non-degree candidates or to those who do not fit into the traditional classification categories. Students may attend in a special status by permission of the Registrar for a period of one semester or a maximum of 12 credits, at the end of which they must submit credentials and be officially accepted by the Admission Committee in order to register for subsequent semesters.

**Full time** – traditional undergraduate enrolled for 12 or more semester credits or ADEP student enrolled in eight or more semester credits per term.

**Three-quarter time** – traditional undergraduate enrolled for nine to 11 semester credits or ADEP student enrolled in six to seven semester credits per term.

**Half time** – traditional undergraduate enrolled in six to eight semester credits or ADEP students enrolled in four to five semester credits per term.

**Less-than-half time** – traditional undergraduate enrolled in less than six semester credits or ADEP students enrolled in less than four semester credits per term.

## Concurrent Enrollment

Students registered at California Lutheran University are not permitted to carry concurrent course work at any other institution without approval of the Registrar. Application forms for concurrent registration are available in the Registrar's Office.

## Grading Policies

### Grades and Grade Points

The cumulative grade point average (CUM GPA) is computed by dividing the total number of grade points earned by the total number of credits attempted, based on CLU and transferable course work. The CLU grade point average (CLU GPA) is computed by dividing total number of grade points earned by the total number of credits attempted, based on CLU course work.

The following grades are used in calculating grade point averages:

Grade		Grade points per attempted credit hour earned
A	Excellent	4.0
A-		3.7
B+		3.3
B	Good	3.0
B-		2.7
C+		2.3
C	Satisfactory	2.0
C-		1.7
D+		1.3
D	Barely Passing	1.0
D-		0.7
F	Failure	0.0
UW	Unofficial Withdrawal	0.0
WF	Withdrawal Failing	0.0

The following grades are not used in computing the GPA:

Grade		Grade points per attempted credit hour earned
IN	Incomplete	No grade points, no credit given
IP	In Progress	No grade points, no credit given
P	Passing	No grade points, credit given
NC	No Credit	No grade points, no credit given
W	Withdrawal	No grade point,s no credit given
AU	Audit	No grade points, no credit given
NR	No Report	No grade points, no grade report submitted by faculty

A grade of IN (Incomplete) may be assigned only in the case of students who, for illness or other circumstances beyond their control, have missed a final examination or major piece of work. Students may not make up the Incomplete by repeating the course. For traditional undergraduate students, an IN automatically becomes an F if not made up by the published date for the last day to withdraw from a course of the following regular semester after the Incomplete grade was given. For ADEP students, an IN automatically becomes an F if not made up by the last day of the following term.

IP (In Progress) is given for theses, practica, internships and courses wherein the work has been evaluated and found to be satisfactory to date, but the assignment of a grade must await its completion. IP carries no credit until replaced by a permanent grade. The IP grade may be replaced by the appropriate final letter grade within one calendar year from the start of the class. IP grades which have not been resolved will be changed to F (undergraduate) or NC (graduate) at the time the student's degree is posted.

A grade of W will be assigned if a student withdraws after the add period is over. The add period ends after the first two weeks of the semester.

## Pass/No Credit

The Pass/No Credit option is offered so that students may explore areas of interest without competing with students who may be majoring in that area.

The Pass/No Credit grading is available on a limited basis. Only sophomore, junior or senior students in good standing may register for a maximum of six (6) courses for P/NC grading. Pass/No Credit grading must be selected prior to the last day to drop a class without academic penalty, and a change to letter grade may NOT be petitioned later.

Pass (P) equals C- or above and will count toward graduation. No Credit (NC) equals D+ or lower and will not count toward graduation. Courses graded P/NC are not computed in the GPA.

Students shall take no more than one Pass/No Credit graded course in one department and may take no more than one P/NC course per semester (except for courses designated P/NC grading only). No core requirements or any portion of the major (including required supporting courses) may be satisfied by courses graded P/NC, except courses offered only with P/NC grading.

## Grade Challenges and Changes

The normal presumption in the administration of grades at California Lutheran University is that the instructor alone is qualified to evaluate the academic work of students in his or her courses and to assign grades to that work.

If a student believes that a grade was assigned in error, he or she should approach the instructor immediately. If the instructor believes that the grade was assigned in error, he or she will submit a grade change form identifying the reason for the change. **GRADE CHANGES MUST BE SUBMITTED WITHIN ONE SEMESTER FOLLOWING THE TERM IN WHICH THE INITIAL GRADE WAS EARNED.**

If a student believes that a particular grade was assigned in a manner that was arbitrary or unjust or that crucial evidence was not taken into account, the student may file a grade challenge. **THE CHALLENGE MUST BE PRESENTED IN WRITING TO THE INSTRUCTOR BY THE END OF THE SEMESTER FOLLOWING THE SEMESTER IN WHICH THE DISPUTED GRADE WAS GIVEN.** If an agreement cannot be reached, then the student may present a written appeal to the department chair or program director who is the instructor's immediate supervisor.

If the conflict cannot be resolved at the departmental level, then the student may appeal in writing to the dean of the school or college, who will follow the process described in the Faculty Handbook.

## Honors

**Honors at Entrance** - In recognition of achievement in college preparatory work, CLU grants Honors at Entrance to freshman students whose high school record is of superior quality. Honors at Entrance certificates will be issued at the time of admission to students who have earned at least a 3.75 GPA on their high school work.

**Dean's Honor List** - Students whose GPA for a semester is 3.6 or above and who are enrolled for 12 or more graded credits shall have their names placed on the Dean's Honor List for that semester. Grades earned from removal of an "Incomplete" are not included. The Dean's Honor List is based on grades submitted by the instructor at the end of the semester. Later grade changes are not considered.

**Honors at Graduation** - The following honors are awarded to qualified recipients of the Bachelor of Arts or Bachelor of Science degree:

**Cum laude** (with distinction) - Students who earn a minimum GPA of 3.5.

**Magna cum laude** (with high distinction) - Students who earn a minimum GPA of 3.7.

**Summa cum laude** (with highest distinction) - Students who earn a minimum GPA of 3.9.

Students must earn the designated GPA on work taken at CLU and on all combined CLU and other college work attempted. They must also have completed at least 30 graded semester credits at CLU in order to be considered for honors.

Honors recognition for the graduation ceremony is based on GPA and credits completed through the last graded semester. Honors designation on the student's permanent record is based on final semester records.

## Grade Reports

Grade reports are available at the end of each term from the Registrar's Office and are available on CLU's website under WebAdvisor. Any discrepancy between this report and the student's personal record must be brought to the attention of the Registrar before the end of the following semester.

The University believes the basic responsibility for communicating grades to parents of dependents enrolled at CLU rests with the student. However, the University reserves the right, on an exceptional basis, to send grade reports to parents of dependent students under 21 years of age if parents request of the Registrar that grades be sent to them for a specific semester.

## Unsatisfactory Progress

### Academic Probation

Academic probation is an indication to students that their academic record is unsatisfactory and that failure to improve may lead to suspension from further work at the University.

Students on academic probation will be required to meet with an academic counselor in the Center for Academic and Accessibility Resources and enroll into the University's academic assistance program known as Students Taking Academic Responsibility (STAR). These requirements are mandatory for their registration to be considered official for the ensuing semester. The Center and faculty advisors will monitor their academic progress.

Students with a CLU or cumulative GPA that falls below a 2.0 will be placed on academic probation. Once placed on academic probation, students must meet the minimum following criteria:

1. Fully participate in the STAR program;
2. Earn a 2.0 or higher semester GPA;
3. Earn a 2.0 or higher CLU and cumulative GPAs.

Students who meet all three criteria will be removed from academic probation. If these criteria are not accomplished, students may be placed on academic suspension. Students who meet criteria 1 and 2 but not 3 may be granted a second semester on probation.

Students having attained a semester GPA above 2.0 in the first semester on probation may be given a second semester on probation in which to raise the CLU and cumulative GPAs to 2.0 or above. Students who have returned to probation in the second semester and who have not achieved above a 2.0 CLU or cumulative GPA will normally be placed on academic suspension.

### Academic Suspension

The following classes of students may be placed on academic suspension:

1. Students who fail to achieve a 2.0 or higher semester, CLU, and cumulative GPAs in the first semester after being placed on academic probation;
2. Students who fail to fully participate in the STAR program;
3. Students who have been granted a second semester on probation who fail to raise their semester, CLU, and cumulative GPAs to 2.0 or higher;
4. Students who have been reinstated following suspension that fail to meet all readmission conditions specified for that individual at the time of readmission.

Students on academic suspension may not take courses at CLU. Academic suspension normally lasts for one full academic year; however, students may be reinstated after one semester if they complete a semester of full-time letter graded coursework and earn a semester GPA at or above a 3.0 at another accredited institution.

Students who have been suspended from the University must submit a letter of appeal to be considered for reinstatement. All students who have been reinstated following suspension will be subject to rules that apply to students in their second semester on probation.

In order to establish the conditions that may lead to readmission, the letter of appeal must include the following:

- A written rationale for readmission
- A tentative plan for success if granted readmission
- Transcripts of all work completed since suspension

If, following readmission, a previously suspended student is suspended for a second time, that student cannot appeal to be readmitted until after a two-year absence or by completing two semesters of full-time letter graded coursework with a grade point average of 3.0 or higher at another accredited institution.

All petitions for readmission must receive final approval from the Provost.

### Eligibility

Students with a CLU and cumulative GPA at 2.0 or above are eligible for intercollegiate competition and/or participation in any activity that requires absence from classes. Eligibility shall be further dependent on conformity to the declared standards of department at CLU.

# Graduation Requirements

The requirements for the degrees of bachelor of arts and bachelor of science are designed to provide students with a broad program of liberal arts study and an opportunity to concentrate in the field of special interest. It is intended that at the undergraduate level the emphasis be placed on acquiring a broad education in many subjects, leaving highly specialized and professional studies to the graduate school level.

Faculty advisers and the Registrar will assist in every way possible. However, students are responsible to see that their academic program includes all requirements for graduation. Graduation requirements in effect at the time of the student's initial attendance at the University are applicable.

Students who have not been in attendance for two consecutive semesters must reapply and be readmitted to the University. Students readmitted after an absence of less than two years may complete requirements under the catalog in effect at the time of initial attendance. For separation of more than two years, the catalog in effect at the time of readmission will be applicable.

Students transferring to California Lutheran University from other collegiate institutions should also consult with an admission counselor for assistance in interpreting the graduation requirements to insure a smooth transfer.

Students enrolling in the Adult Degree Evening Program (p. 79) should consult the section of the catalog for that program.

## General Degree Requirements

1. Students must complete 124 semester credits. At least 40 of these must be upper division, that is junior or senior level courses.
2. 30 of the final 40 credits must be completed in residency. This requirement cannot be met using credit by examination.
3. Students must earn at least a 2.0 grade point average for all CLU work and also achieve a 2.0 on all combined CLU and other college work.

## Major Requirements

All students must complete an academic major as part of the requirements for the baccalaureate degree. Requirements for an academic major are as follows:

1. Completion of at least 32 credits in an area of concentration for the bachelor of arts or at least 36 credits for the bachelor of science.
2. Three upper division courses for the major, including the capstone, must be taken in residence at CLU.
3. A minimum grade point average of 2.0 is required in the major. Required support courses are not included in the major GPA.
4. At least 75 percent of the required courses for a major must be unduplicated with any other major or minor.

## Minor Requirements

Minors consist of a coherent set of related courses in a particular disciplinary or interdisciplinary area. An academic minor is not required for a degree; however, if the student elects to earn a minor, he or she

1. must complete the specified 16 to 20 credits;
2. may not major and minor in the same department;
3. must complete at least eight to 12 credits in upper division courses and at least two of those upper division courses must be completed in residence at CLU;
4. must achieve a minimum grade point average of 2.0;
5. may not count internships toward the minor unless specifically required by the minor;
6. may use only one independent study course to meet minor requirements.
7. At least 75 percent of the required courses for a minor must be unduplicated with any other major or minor.

NOTE: Students should refer to the "Limits on Credit" section under Academic Policies (p. 39).

## Core-21

California Lutheran University's core curriculum is future-oriented. It embodies the intellectual legacy of the past, yet its chief aim is to prepare students to meet the challenges of the 21st century. Core-21 is designed to instill the habits of mind that are necessary for students to become lifelong, independent learners and responsible world citizens who can adapt to, create and change the society of the future.

CLU's core curriculum is designed to prepare students for the 21st century by enabling them

1. to become proficient in analytical and critical thinking and to be able to process, transform and communicate information;
2. to be able to comprehend issues from a variety of perspectives and to understand how different academic disciplines ask questions about the world;

3. to understand themselves as both heirs and creators of history; to understand the forces that have shaped their cultural heritage and appreciate the diversity of values and viewpoints in the United States and the world;
4. to be able to integrate information and moral reflection in order to develop creative solutions to new problems.

## Core-21 (General Education) Requirements

Requirements are subject to change. Consult the schedule of classes for each semester to determine which courses satisfy current Core-21 requirements.

### 1. Proficiencies

Since these are competency and not course requirements, students who satisfy these requirements through examination will not receive course credit.

#### A. **Written Communication:**

- i ENGL 111 with a grade of C- or better or AP equivalent. Depending on the student's placement score, he or she may be required to take ENGL 101 as a prerequisite to ENGL 111 .
- ii One Writing Intensive course - must be upper division.

#### B. **Speaking Intensive Course:** One course \*

#### C. **Foreign Language:** Proficiency at the second semester level. (NOTE: for Greek, the requirement is met with GREE 326 ; for Hebrew, the requirement is met with HEBR 316 ). The requirement is waived for international students who verify academic study of their native language through the high school level. The foreign language requirement may be satisfied using American sign language.

#### D. **Mathematical Reasoning:** One course (beyond intermediate algebra) or satisfactory score on the designated exam.

### 2. Perspectives

#### A. **The Humanities:**

- i History - one course.
- ii Literature - one course.
- iii Philosophy - one course.
- iv Religion - REL 100 and one upper division course. Transfer students with at least 60 transfer credits at matriculation may waive one course.

#### B. **Social Sciences:**

Two courses in different disciplines selected from specifically approved cultural anthropology, criminal justice, economics, cultural geography, political science, psychology, sociology courses.

#### C. **Natural Sciences:**

Two courses, both with lab components: physical anthropology, astronomy, biology, chemistry, geology, physics. Transfer students with at least 90 transfer credits at matriculation may transfer two science courses without a lab component. Transfer students with at least 30 transfer credits at matriculation may transfer one science course without a lab component.

#### D. **Visual and Performing Arts:**

Two courses, including one performance activity. Only one 1-credit course may be counted.

#### E. **Health and Well-Being:**

One activity course. Students over 25 years of age are exempt from the Health and Well-Being requirement.

### 3. Cultures and Civilizations

#### A. **Global Perspectives:** One course. \*

#### B. **U.S. Diversity:** One course. \*

### 4. Integrated Studies

#### A. **Integrated Studies Capstone:**

One course. \* This course is included in the requirements for the major; no additional course work is required.

\* These courses are not additional unit or course requirements. They are content requirements that may be met through selection of courses that also meet major, elective or other core requirements.

NOTE: Students transferring from California community colleges who, prior to transfer to CLU, have fully satisfied the Intersegmental General Education Transfer Curriculum (IGETC) need only complete the foreign language requirement and one religion course to meet the CORE-21 general education requirements.

NOTE: A single course may satisfy a maximum of four (4) graduation or program requirements.

## Faculty Profiles

California Lutheran University's distinguished faculty come from some of the top institutions in the country and are dedicated to helping students achieve success. Small classes make it possible for faculty members to develop close mentoring relationships with students, and CLU maintains a campus environment conducive to faculty and student interaction. The quality of this interaction sets CLU apart from other institutions of higher education. Since the University opened its doors to the first students in 1961, the quality of the faculty has been considered the institution's greatest asset and one of the reasons the University was awarded accreditation by the Western Association of Schools and Colleges early on. Through the years, that tradition of faculty excellence has been maintained.

### **Ali Akbari**

Professor of Business Administration, 1984  
M.A., Ph.D., University of Southern California

A former researcher for the National Science Foundation, Ali Akbari has been active professionally – publishing articles, presenting papers, serving on professional programs and consulting. He has published two textbooks in economics: Explorations in Macroeconomics and Economic Way of Thinking. As Director of the CLU Center for Economic Research, Dr. Akbari developed an economic and business forecasting model that provides quarterly forecasts of economic activities in the major cities of Ventura County.

### **Gerhard Apfelthaler**

Professor of International Business and International Management, 2009  
M.B.A., Ph.D., Vienna University of Economics and Business Administration

A native of Austria, Gerhard Apfelthaler started his career at the Vienna University of Economics in Austria. After having served as an Austrian Trade Commissioner to the United States and as a Commercial Attaché at the Austrian Embassy in Singapore, he successfully built international business programs at two different universities in Austria before joining CLU. He teaches and publishes in the areas of international business, international market entry and cross-cultural management. He has published extensively on these topics and is a member of the Academy of Management, the Academy of International Business, the Strategic Management Society and the University Accreditation Board of Oman.

### **Michael J. Arndt**

Professor of Theatre Arts, 1982  
B.A., Augsburg College  
M.F.A., University of Minnesota

Besides teaching theatre courses in acting, directing and theatre history, Michael Arndt directs many of CLU's theatre productions. His recent CLU productions have included Pericles: Prince of Tyre, Anatomy of Gray, and The Threepenny Opera. Professor Arndt is also active in professional theatre and is founder and artistic director of the Kingsmen Shakespeare Company, a professional theatre company of CLU. Recent Kingsmen productions he has directed include Macbeth, King Lear and Othello.

### **Chad L. Barber**

Assistant Professor of Biology, 2011  
Ph.D., University of California, Los Angeles

Chad Barber most recently worked as a postdoctoral fellow at UCLA, conducting research in immunology. He also has been teaching at Pepperdine University. He earned a B.S. in biology at Pepperdine, an M.S. in biology at California State University, Northridge, and a Ph.D. in molecular biology at UCLA. His research interests range from radiation biology to immunology, including "cell-cell interactions modulating signal transduction pathways" and various facets of immune cell development and function.

### **Somnath Basu**

Professor of Business, 1999  
B.A., University of Delhi  
M.B.A., Marquette University  
Ph.D., University of Arizona

Somnath Basu is a professor of finance and Director of the California Institute of Finance at CLU. He is widely published and an award-winning teacher. He has significant consulting experience with U.S. Fortune 100 companies, advising institutional money managers and in developing proprietary finance

and planning software. Dr. Basu serves on various boards and committees including the CFP (chaired the Model Curriculum Revision Committee) Board of Standards and the Financial Planning Association. He is co-author of *Investment Planning for Financial Professionals* (McGraw Hill, 2006).

**Robert Beilin**

Senior Lecturer in Graduate Psychology, 2009  
B.A., M.A., Ph.D., University of California, Los Angeles

Robert Beilin is a licensed Marriage and Family Therapist and School Counselor. He has made presentations at the Association of Family and Conciliation Courts Southwest Regional and California Chapter Conference, the Ventura County Family Law Bar Association, and the Tenth Annual Forensic Mental Health Conference at Patton State Hospital among others. Beilin is a member of the American Association for Marital and Family Therapy, the Collaborative Family Law Professionals of Ventura and other professional organizations.

**William J. Bersley**

Associate Professor of Philosophy, 1980  
B.A., Concordia Senior College, Ft. Wayne  
M.Div., Concordia Theological Seminary, St. Louis  
Ph.D., University of Colorado

Problems, logic, history of philosophy and philosophy of religion are among the topics Bill Bersley teaches at CLU. He received an NDEA Fellowship for his doctoral work at the University of Colorado and previously served as a parish pastor and campus pastor at Black Hills State College. Dr. Bersley enjoys running, tai chi chuan, singing, playing the guitar and drumming.

**William L. Bilodeau**

Professor of Geology, 1990  
B.A., University of California, Santa Barbara  
Ph.D., Stanford University

Prior to joining CLU's faculty, Bill Bilodeau taught for eight years at the University of Colorado, Denver, where he developed both an extensive knowledge of the local geology and a love for the Rocky Mountains. His research has centered on the regional structural geology, tectonics and sedimentary geology of parts of Colorado and Arizona. Dr. Bilodeau believes that geology is best learned in the field, so he includes many overnight field trips in his class activities. Outside the classroom, he enjoys hiking, camping, cross-country skiing, reading science fiction and visiting an occasional Saturday morning garage sale.

**James Arthur Bond**

Associate Professor of English, 2004  
B.S., Ball State University  
M.S., Ph.D., Indiana University

Jim Bond was the recipient of the William Riley Parker Teaching Award at Indiana University. He has considerable expertise in the areas of writing theory and pedagogy, American literature and periodicals, literacy and print culture studies, the Vietnam War in literature, children's literature, and English education. He has published two articles on prominent 19th-century periodicals for the multi-volume project *American History through Literature, 1870-1920* (Scribner's, 2006). Dr. Bond is also a Reader for the AP English Language Exam for Educational Testing Service and a Reviewer for the AP Course Audit.

**Elizabeth Brennan**

Associate Professor of Special Education, 2011  
Ph.D., Kent State University

Beth Brennan holds a B.A. in social work from Colorado State University and an M.Ed. and Ph.D. from Kent State University in Ohio. Her research interests include the history and foundations of children with disabilities, disability labels and service provision, and behavioral supports for students with autism. Her most recent academic appointment was as associate professor at Saint Mary's College of California. Prior to that, she was a research coordinator for the Early Childhood Institute on Inclusion at San Francisco State University, where she also taught education courses. Brennan was a recipient of the Alice H. Hayden Award, presented annually to one U.S. doctoral student who demonstrates potential for leadership in teaching, scholarship and service on behalf of people with significant disabilities.

**Michael E. Brint**

Professor of Political Science and Uyeno-Tseng Professor of International Studies, 2000  
B.A., University of California, Santa Cruz  
Ph.D., University of Oxford, England

Michael Brint, Uyeno-Tseng Professor of Global Studies, created CLU's Study Abroad Program to Oxford, which pairs a traditional study abroad model with extensive European travel seminars. Previously, he was Director of the Integrated Program in Humane Studies and Associate Professor of Humane Studies at Kenyon College and also has served as a visiting professor at Stanford University, assistant professor of government and foreign affairs at University of Virginia, and Thomas Jefferson Professor at Cambridge University, England, as well as Chief Administrative Officer for Laureate Inc., an organization to improve institutional information, collaboration and student learning through the use of information technology.

**Christopher (Chris) Brown**

Assistant Professor of Mathematics, 2008  
B.S., M.S., University of Missouri, Rolla  
Ph.D. University of Colorado, Boulder

Before coming to CLU, Chris Brown was a visiting assistant professor of mathematics at The College of William and Mary, and also has held visiting positions at Kenyon College, the University of Northern Colorado, and the University of Colorado, Boulder. The subject of his doctoral dissertation was Connectedness and Reflections in Symmetry Algebras of Differential Equations, and his research interests include dynamics and game theory, with applications to ecology and finance. He is especially interested in problems of conservation and management in Caribbean marine turtle populations.

#### **Lisa Buono**

Interim Director of Adult Degree Evening Program  
Assistant Professor in Education, 2005  
B.A., University of California, Santa Barbara  
M.A., Ed.D., California Lutheran University

Lisa Buono teaches a variety of courses in both the Pupil Personnel Services and the College Student Personnel programs in the Department of Counseling and Guidance, and serves as Field Work Coordinator for the department. Through a collaborative effort, she also taught distance-learning courses to counseling candidates in the Federated States of Micronesia. Prior to CLU, Buono taught at UCLA in the MFA Producer's Program.

#### **Barry Burns**

Instructor in Multimedia, 2005  
B.F.A., University of Houston

Barry Burns has been teaching part time at CLU for more than 12 years. His prior experience in multimedia includes animation, art, broadcast, graphic communication, music and photography. He owned and managed the graphic design firm Fortuna Design. As an illustrator, he has been published in eight books on neuroscience including The Human Brain by Jackson Beatty of UCLA. In addition to teaching, Burns has a passion for painting and sculpture.

#### **Kristine D. Butcher**

Professor of Chemistry, 1989  
B.S., California Polytechnic State University, San Luis Obispo  
Ph.D., Stanford University

Kristine Butcher teaches a variety of chemistry courses, including general, physical and inorganic chemistry. Her current research examines the electronic structure and bonding properties of metallic carbides using molecular orbital calculations. Dr. Butcher is a member of the American Chemical Society and the National Science Teachers Association. She enjoys music, baseball and beachcombing.

#### **Nathan Carlson**

Assistant Professor of Mathematics, 2009  
B.A., Oberlin College  
M.A., Ph.D., University of Kansas, Lawrence

Prior to joining the CLU faculty, Nathan Carlson held a postdoctoral position at the University of Arizona, which emphasized both research and teaching. His publications and research are in the area of point-set topology. However, his interest in math pedagogy has led him to work with middle school teachers as well as with university colleagues in the field. His work with curriculum and pedagogy led to a University of Arizona Math Department Teaching/Service award.

#### **Peter Carlson**

Visiting Assistant Professor of Religion, 2011  
Ph.D., Claremont Graduate University  
Peter Carlson's B.A. in communication from Wheaton College led to a career in television production. Subsequently he earned his M.A. and Ph.D. in the history of Christianity from the Claremont School of Theology and Graduate University, respectively. Focusing on medieval and early modern Christianity, his research investigates the "intersections of material texts and religious practice." Currently, he is researching the "Customal and Martyrology (as well as the rest of the library) of an obscure English monastic college known as the Boni Homines, or Good Men, in an effort to demonstrate the religious and educational roles that this unique order played in late medieval English society."

#### **Penchusee (Penny) L. Cefola**

Associate Professor of English, 1987  
B.A., Prasanmit College of Education, Bangkok, Thailand  
M.S., Ph.D., Georgetown University

Penny Cefola earned her master's and doctorate in applied linguistics. She has taught linguistics and writing in Thailand, Korea, and China and is an active member of the American Association for Applied Linguistics (AAAL). She enjoys the atmosphere of a small university such as CLU and, as the founder and advisor of CLU's Asian Club and Friends, she has a special interest in motivating and encouraging minority students to strive for academic excellence. Dr. Cefola's textbook Let's Do Linguistics: Applied Linguistics for Language Teachers is used in her linguistics and language acquisition classes.

**Xiang Chen**

Professor of Philosophy, 1992  
B.A., M.A., Zhongshan University  
M.S., Ph.D., Virginia Polytechnic Institute and State University

Xiang Chen teaches courses in the philosophy of science, logic, technology, and values and contemporary philosophy. His specialties include the philosophy and history of science and Oriental philosophy, and he has written numerous articles for academic journals on these and other philosophy-related topics. A native of China, Dr. Chen formerly taught philosophy at Zhongshan University in Canton, China, and at Virginia Polytechnic Institute and State University.

**Barbara Collins**

Professor of Biology, 1963  
B.S., Bates College  
M.A., Smith College  
M.S., Ph.D., University of Illinois

Barbara Collins' main interests are botany and ecology. She loves teaching and enjoys leading field trips to the chaparral, deserts and mountains of Southern California. She teaches a summer course on the wildflowers of the Sierras, has extensively studied the flora of Southern California, and has assisted in several environmental impact studies. Dr. Collins is the author of 10 textbooks, some of which are used in local colleges and universities. Her latest effort has been the production of a wildflower website that includes more than 3,000 photos of California plants indexed to common, scientific and family names.

**Carol Lynn Coman**

Associate Professor of Business Administration, 1986  
B.S., M.S., California State University, Northridge

Professor Coman teaches courses at both the undergraduate and graduate levels, and her continuing research has been on assessment. Her work on assessment has been published, and she is frequently asked to present the results of her research at national and international conferences. In addition to on-campus courses, Coman leads International Business Seminars (IBS) that involve students in travel throughout Western Europe and visits to business entities during the course. Outside of her work at CLU, Coman also is a management consultant, specializing in financial and tax matters.

**Jonathan Cordero**

Assistant Professor of Sociology, 2005  
B.A., University of California, Berkeley  
M.A., Ph.D., University of California, Santa Barbara

Jonathan Cordero is a culture sociologist whose primary areas of research explore the intersection between culture and religion. Other areas of research interest include social theory, aesthetics, racial and ethnic relations, and social justice. He teaches courses in social theory, culture, religion, and racial and ethnic relations and is actively engaged in supporting diversity efforts on campus and in the community. Dr. Cordero is an award-winning professor who has published numerous articles on the topic of religion and popular culture. He is currently working on a book about sacrilege in American culture.

**Michael Cosenza**

Associate Professor in Education, 2006  
B.A., Queens College of the City University of New York  
M.Ed., California Lutheran University  
Ed.D. candidate, California Lutheran University

Michael Cosenza's specialty is preparing candidates to become public school teachers, and he teaches courses in instructional methods with a focus in mathematics, science and technology integration. He also oversees candidate assessment including the administration of the California Teaching Performance Assessment (CalTPA) program and conducts seminars that prepare teacher candidates for the CalTPA. Prior to joining the CLU faculty, Cosenza taught for the Moorpark Unified School District. In addition to teaching he serves as the Professional Development School Coordinator and manages an elementary and single subject partnership with both the Moorpark Unified and Conejo Valley Unified School Districts.

**Lynn Creighton**

Senior Lecturer in Art, 2009  
B.S., Temple University  
B.A., M.A., California State University, Northridge

Lynn Creighton is an internationally recognized and exhibited sculptor who is known for her clay and bronze female figures. William Zimmer, contributing art critic for New York Times, wrote that her art suggests that "she has glimpsed through hallowed means that the core of life, its heart and spirit as well as its root, is women's special gift and responsibility." She has taught at CLU as an adjunct for the past five years and has also taught at a number of local universities and colleges.

**Jamshid Damooei**

Professor of Economics, 1987  
B.Sc., University of Tehran, Iran  
M.Phil., University College London, England

M.Sc., Ph.D., Economics University of Surrey, England

Jamshid Damooei's scholarly work embraces a broad spectrum of current social and economic issues. During the last 10 years, he has become more focused on the study of California's economy and authored a number of reports and studies on economic analyses of social issues. Recently, Dr. Damooei's research studies have primarily been conducted within CLU's Center for Leadership and Values, of which he is co-director. He is a former Director General of the Ministry of Economic Affairs and Finance in Iran and senior economist for the United Nations Development Programme (UNDP). Currently, he is a consultant for the United Nations and most recognized for his expertise on economic and institutional capacity building in East Africa and the Middle East.

**Rainer Diriwächter**

Associate Professor of Psychology, 2005  
B.A., West Virginia University  
M.A., Ph.D., Clark University

Rainer Diriwächter is a native of Switzerland and has a strong background in the history of German psychology. He has published several articles and book chapters that highlight the contributions of "Ganzheitspsychologie" - the German holistic approach to psychology. His recent books include the international volume *Striving for the Whole: Creating Theoretical Syntheses* (Transaction Publishers) and *Innovating Genesis: Microgenesis and the Constructive Mind in Action* (Information Age Publishing), both published in 2008. Dr. Diriwächter is editor of the newly founded *Journal of Integrated Social Sciences* (JISS.org) and serves as an editorial board member for two peer-reviewed journals. He is faculty adviser to Psi Chi (the national honor society in psychology) and the Interdisciplinary Research Council.

**Sharon D. Docter**

Professor of Communication, 1992  
B.A., J.D., University of California, Los Angeles  
Ph.D., University of Southern California

An attorney with a doctorate in communication theory and research, Sharon Docter brings a special dimension to the Communication Department. Along with working in securities and general business litigation, she has studied regulations of broadcasting, cable television and telephone companies. Her current research examines the regulation of new technologies such as the Internet. Docter teaches courses in media law, public speaking, communication theories, argumentation and business law.

**Harry A. Domicone**

Professor of Business, 1993  
B.G.S., Ohio University, Athens  
M.B.A., California Polytechnic State University, San Luis Obispo  
Ph.D., University of Cincinnati

With special research interests in the strategic management of international entrepreneurship, Harry Domicone serves as Director of the International MBA Program and teaches a variety of management and other business courses. He currently consults in the areas of new venture development and family and closely held businesses. He is a member of several professional organizations, including the Academy of Management, the Strategic Management Society and the Academy of International Business.

**Deborah Erickson**

Associate Professor of Education, 2002  
B.A.E., M.A., Pacific Lutheran University  
M.A., California State University San Bernardino  
Ed.D., University of the Pacific

Deborah Erickson teaches in the master's programs in Educational Administration and Curriculum and Instruction as well as in the doctoral programs. Her research interests are in the areas of the principalship, mentoring, and faculty induction. Previously, an elementary teacher, reading specialist and principal, she also served as Director of Curriculum and Student Services for the San Carlos School District. She has an extensive background in staff development and has worked as a consultant to urban charter schools.

**R. Guy Erwin**

Professor of Religion and History, 2000  
B.A., Harvard College  
M.A., M.Phil., Ph.D., Yale Graduate School of Arts and Sciences

Guy Erwin is the first full-time holder of CLU's first endowed chair, the Gerhard and Olga J. Belgum Chair of Lutheran Confessional Theology. He also serves as Director of the Segerhammar Center for Faith and Culture. In addition to a survey course in the history of Christianity, Dr. Erwin teaches seminar courses on medieval, Reformation and early modern history and theology, including the life and thought of Martin Luther. Almost all of his courses are cross-listed in both religion and history. He also offers instruction on liturgy and worship in cooperation with the Music Department and occasionally teaches ecclesiastical Latin as a tutorial. Erwin is a native of Oklahoma and an active member of the Osage Tribe of Indians.

**Karrollyne Fogel**

Associate Professor of Mathematics, 1999  
B.S., Santa Clara University

Ph.D., University of Texas, Austin

Karolyne Fogel's mathematical specialty is algebraic number theory. While her research is related to Stark's Conjecture, she is particularly fond of elliptic curves, a mathematical construct that played a vital role in Andrew Wiles' 1994 proof of Fermat's Last Theorem (which remained unsolved for 350 years). Her more recent interests include the mathematics of voting, and mathematics education, particularly at the elementary school level. She is an avid fan of astronomy and has been known to spot Venus during the daytime.

**Julia Lambert Fogg**

Associate Professor of Religion, 2003

B.A., Colgate University

M. Div., Yale Divinity School

Th.M., Candler School of Theology, Emory University

Ph.D., Emory University

Julia Fogg teaches New Testament, Early Christianity, Christianity in culture, and Islam. In her research, Dr. Fogg explores the ways in which culture and social practices shape community expressions of faith. Although she specializes in Pauline studies, she pursues her interest in Liberation Theology, interfaith conversations and creative pedagogies such as service-learning and often leads the Turkey Travel course. Fogg is also developing a model for bilingual, Latino/Chicano urban ministry in Pasadena.

**Robert Fraisse**

Distinguished Educator in Residence, School of Education, 2006

B.S., California State University, Los Angeles

M.S., California Lutheran University

Ph.D., University of California, Santa Barbara

As Distinguished Educator in Residence in the School of Education, Robert Fraisse oversees CLU's growing Ed.D. programs. Dr. Fraisse has worked in the field of K-12 public education for almost 33 years. During much of that time, he served in leadership positions in three districts, most recently as Superintendent of the Conejo Valley Unified School District. As a higher education administrator, he enjoys helping prepare school leaders who are able to meet the challenges in today's K-12 education system.

**Gregory K. Freeland**

Professor of Political Science, 1991

B.A., M.A., Ph.D., University of California, Santa Barbara

Greg Freeland is Chair of the Department of Political Science and faculty adviser to Model United Nations. He has worked on the New Sanctuary Movement for immigrant rights and delivered papers on the topic. Dr. Freeland is an active member of the American Political Science Association, the Western Political Science Association, and the Caribbean Studies Association. He received the John Randolph Haynes and Dora Haynes Foundation 2009 Faculty Fellowship for a study on "Redistricting by Citizen Task Force: An Analysis of the Impact on Ventura County" and previously received grants from the National Endowment for the Humanities for summer fellowships. Freeland is President of the Board of Directors of Central Coast Alliance United for a Sustainable Economy (CAUSE).

**Michael Gagliardo**

Assistant Professor of Mathematics, 2011

Ph.D., University of Texas at Austin

Michael Gagliardo earned his B.S. in mathematics at Southwestern University and his M.A. and Ph.D., also in mathematics, at the University of Texas at Austin. Subsequently he taught at Jacksonville University in Florida, where he won the Excellence Award in Teaching and was heavily involved in the development of a curriculum using inquiry-based methods. His research interests include differential geometry, integrable systems, Lie groups and wavelets.

**Kenneth Gardner**

Professor of Theatre Arts, 1985

B.A., State University of New York, Brockport

M.F.A., Ohio University

In addition to his interest in theatre, Kenneth Gardner has produced a television show, has had two TV scripts optioned and worked as a script analyst for Meyers-Shyer Productions at Disney Studios. He has written and directed several original pieces with CLU students including Mark Twain and the Ghost at the Stagecoach Inn, a children's musical that was a semi-finalist in a national playwriting contest. Gardner has directed the department's Summer Theatre Workshop for Youth and has directed on the Equity Waiver circuit in Los Angeles.

**Daniel M. Geeting**

Professor of Music, 1984

B.A., California State University, Fresno

M.M., University of Southern California

D.M.A., University of Oregon

As Director of Instrumental Music, Dan Geeting conducts the University Symphony and Wind Ensemble, and directs the Jazz Ensemble. As a clarinetist, he has played on sound tracks for motion pictures and television and has performed extensively as a recitalist. His latest recording project is a compact disk of the clarinet music of the renowned British composer Arnold Cooke. He has also recorded the clarinet works of another major British composer, Gordon Jacob. Both recordings are on the PROdigital label.

**Marylle Gerson**

Associate Professor of Psychology, 2001

B.A., College of William and Mary

M.A., Ph.D., Princeton University

Marylle Gerson teaches a wide variety of undergraduate and graduate courses including clinical, developmental, social and research psychology. She combines a background in university teaching with experience as a licensed clinical psychologist and strong research interests, leading to a number of professional publications in the field. Dr. Gerson's love of mentoring brought her to the CLU community, where her goal is to excite and guide students in the many aspects of psychological inquiry.

**Michael Gerson**

Assistant Professor of Graduate Psychology, 2008

B.A., California State University, Northridge

M.A., California State University, Dominguez Hills

Ph.D., California Graduate Institute

Michael Gerson brings nearly 30 years of experience to CLU as a graduate level instructor and clinician in clinical psychology and marriage and family therapy. Dr. Gerson has also taught courses at University of California, Los Angeles, Phillips Graduate Institute, California School of Professional Psychology, California Graduate Institute, and Loyola Marymount. He is licensed as a psychologist, marriage and family therapist, and psychoanalyst, and has served as an expert witness in criminal, child abuse, and domestic violence cases.

**Rahuldeep Gill**

Assistant Professor of Religion, 2009

B.A., University of Rochester

M.A., Ph.D., University of California, Santa Barbara

Rahuldeep Gill specializes in Sikh, Hindu and Muslim traditions, and has expertise in the Punjabi, Hindi, Urdu, Sanskrit, Persian and German languages. His dissertation is based on the works of the 17th century Sikh commentator Bhai Gurdas Bhalla. Through his writings, Dr. Gill "investigates the role of religious literature in defining communal identity and its implications for the interaction of religion and politics."

**Bruce Gillies**

Assistant Professor of Business, 2005

B.S., University of the State of New York

M.S., M.A., U.S International University

Psy.D., Alliant International University

Bruce Gillies holds a doctorate in industrial/organizational psychology. His varied career includes 21 years of active duty in the Navy as well as leadership positions at colleges and universities. At CLU, he teaches courses in both the MBA and undergraduate programs. With research interests in athletic team dynamics, sports psychology and leadership, Dr. Gillies has assisted the athletic department through the use of mental skills training, team dynamics and communication, and leadership trait identification.

**Herbert E. Gooch III**

Professor of Political Science, 1987

B.A., University of California, Berkeley

M.B.A., M.A., Ph.D., University of California, Los Angeles

Herb Gooch is Director of the Master's in Public Policy and Administration Program and Assistant Provost for Graduate Studies. He also chairs the Lutheran Colleges Washington Semester consortium based in Washington, D.C. He teaches in both the graduate MPPA program and the undergraduate Political Science Department and is a frequent commentator in the media on local and national political events and trends. His interests include foreign travel, politics and movies.

**Monica Gracyalny**

Assistant Professor of Communications, 2011

Ph.D., Arizona State

Monica Gracyalny completed her Ph.D. in communication at Arizona State University and earned her B.A. and M.A., also in communication, at the University of Wisconsin, Milwaukee. Her research interests are interdisciplinary, as attested by her dissertation, which develops "a theoretical model specifying how the experience and expression of remorse lead to forgiveness in close relationships."

**Joan Griffin**

Dean of the College of Arts and Sciences, 2007

A.B., Washington University

M.A., Ph.D., Harvard University

Joan Griffin came to CLU from Augsburg College in Minneapolis where she served as Associate Dean for General Education and as a faculty member in the English Department. In addition to chairing the Faculty Senate, she held leadership roles in the Honors Program and co-authored the institutional vision statement. Prior to Augsburg, Dr. Griffin taught at Wartburg College and Lakeland College and served as a teaching fellow at Harvard.

**Sandra Grunewald**

Assistant Professor of Business, 2004  
B.A., Augsburg College  
M.B.A., California Lutheran University

Sandra Grunewald teaches a wide variety of accounting, tax, and audit classes. She also has a CPA practice in Ventura, and provides accounting, tax and consulting services for her clients, as well as training in the use of QuickBooks and other accounting software programs. Before coming to CLU, she owned Pacific Legal Arts College, a vocational school with branches in Oxnard, Camarillo, Bakersfield and Los Angeles. Grunewald is a graduate of the Ventura Police Academy and worked for the Port Hueneme Police Department for two years.

**Veronica Guerrero**

Assistant Professor of Business, 2005  
B.S., Cal Poly, San Luis Obispo  
M.B.A., California State University, San Jose  
Ed.D., Pepperdine University

Veronica Guerrero has more than 12 years of experience in marketing communications for companies such as BBDO, GRC International, 3Com and BearingPoint (formerly KPMG Consulting). She recently completed her doctorate in organizational leadership.

**Dan Hamilton**

Assistant Professor of Business, 2009  
B.S., University of California, Davis  
M.S., Ph.D., University of California, Santa Barbara

Dan Hamilton is Director of Economics in the CLU Center for Economic Research and Forecasting (CERF). He began working professionally with economic forecast models in 1997 with the Wharton Econometric Forecasting Associates (WEFA) Group formed by Nobel Prize winner Lawrence Klein. In 2000, he joined the UCSB Economic Forecast Project with Bill Watkins. While with UCSB, Hamilton built and maintained a variety of forecast models in Eviews, including models of the United States, California and Oregon.

**Grady Hanrahan**

Associate Professor of Chemistry, 2007  
B.S., Indiana State University  
M.S., Southern Illinois University  
Ph.D., University of Plymouth (England)  
Postdoctoral research - Louisiana Universities Marine Consortium

Grady Hanrahan is the John Stauffer Endowed Professor of Analytical Chemistry. With experience in directing undergraduate and graduate research, he has taught in the fields of analytical chemistry and environmental science at California State University, Los Angeles. His research is focused on four main areas: bio- and environmental analytical method development; modeling of chemical species in environmental systems; chemometric experimental design, optimization and data analysis; and application of neural networks and evolutionary computing techniques for solving complex chemical problems.

**Paul Hanson**

Professor of History, 1978  
B.A., Luther College  
Ph.D., University of Chicago

Twice a Fulbright Scholar in India, Paul Hanson's research has focused on Islamic history in South Asia, especially the relationship of religion and political legitimacy. Other national fellowships and awards have enabled him to study in London, Sri Lanka and Jordan. Winner of the President's Award for Teaching Excellence, Dr. Hanson is known for his extensive use of images from his own travels in his classes. He is currently developing a reference collection of digitized images from Asia. Hanson has served as Co-director of CLU's Global Studies major and Coordinator of the Global Studies Program. He previously taught at St. Olaf College and Agra University in India.

**Steven Hawkins**

Professor of Exercise Science, 2007  
B.S., M.S., Emporia State University  
Ph.D., University of Southern California

Following completion of his doctorate in exercise science in 1999, Steven Hawkins joined the faculty of Kinesiology and Nutritional Science at California State University, Los Angeles where he worked until the spring of 2007. He also has an adjunct appointment in the Division of Biokinesiology and Physical Therapy at USC where he has taught graduate level physiology courses since 2002. Hawkins' research focuses primarily on musculoskeletal

aspects of aging. He has also been involved in projects investigating skeletal muscle changes in response to acute and chronic exercise, as well as hormonal supplementation in older subjects.

**Timothy Hengst**

Professor of Multimedia, 2001  
B.A., California Lutheran University  
M.A., Johns Hopkins University School of Medicine

Tim Hengst, who serves as Director of CLU's Multimedia program, has illustrated more than 50 medical/surgical textbooks and has won numerous national awards in medical illustration, including three Best Illustrated Medical Text awards from the Association of Medical Illustrators. After receiving his graduate degree in medical and biological illustration, Hengst illustrated for Dr. Denton Colley at the Texas Heart Institute and served as Director of Photography and Audiovisual Communications. He joined the faculty of the Art as Applied to Medicine graduate program at Johns Hopkins University School of Medicine serving as production manager in the medical art division and assistant professor in the graduate program. He has a freelance business that offers services in all areas of biomedical communications.

**Larkin Higgins**

Professor of Art, 1985  
B.A., California State University, Long Beach  
M.A., California State University, Fullerton  
M.F.A., Otis College of Art and Design

In addition to teaching courses in drawing, painting and interdisciplinary arts, Larkin Higgins involves herself with multiple creative media, actively exhibiting and publishing. Her artworks are in several permanent collections. The Boston Globe, Antiques & the Arts Weekly (New York), U-Turn (Chicago), Artweek, and Los Angeles Times are among publications that have included and/or reviewed her artworks. Anthologized by University of Iowa Press, Fossil Press and elsewhere, Higgins also writes poetry and creates visual poetry for exhibits and publication.

**Haco Hoang**

Associate Professor of Political Science, 2005  
B.A., University of California, Santa Barbara  
Ph.D., Boston University

Haco Hoang was a Fulbright Scholar at the Institute of Southeast Asian Studies in Singapore and has taught courses on international relations, global studies, terrorism, ethnic conflict and genocide, public policy, and women in politics. Currently, she is the education policy consultant to promote youth environmental activism for Los Angeles Mayor Antonio Villaraigosa's Million Trees Los Angeles initiative. Her policy work and research have been profiled in the Women's Policy Journal of Harvard-Kennedy School of Government, Hispanic Outlook in Higher Education and other outlets.

**Andrea Huvad**

Professor of Biology, 1991  
B.A., Trinity University  
M.S., San Diego State University  
Ph.D., University of California, Los Angeles

Andrea Huvad's interests are in marine biology, invertebrate zoology and underwater videography. She has focused her recent career on the conservation and preservation of marine ecosystems through education. In addition to research articles and textbook materials, her publications include a series of underwater videos that document coastal marine ecosystems of the Channel Islands and the Hawaiian Islands. Her current research involves a long-term study of how the input of anthropogenic nutrients can determine the diversity and distribution of certain organisms in marine ecosystems. As an administrator, she is interested in the interdisciplinary nature of modern science and how to deliver this to a new generation of university students.

**Cynthia Jew**

Professor of Education, 2001  
B.A., University of Colorado, Denver  
M.A., University of Colorado  
Ph.D., University of Denver

Cynthia Jew is a licensed psychologist and Certified School Psychologist. Her research expertise and interests include resiliency, family systems and cultural diversity. Author of the Resiliency Skills and Abilities Scale, her current research projects include work with cochlear implant users. Dr. Jew served as a school psychologist in Colorado and as an assistant professor of education at universities in Tennessee, Ohio, Colorado and California. At the University of Redlands, she was Program Coordinator for the School Counseling and PPS Credential Program as well as Project Director for the development of the school psychology program.

**Bonnie Johnson**

Senior Lecturer in Business, 2004  
B.A., California State University, Fullerton  
M.B.A., Claremont Graduate University

Bonnie Johnson is an economist with more than 25 years of financial management experience, including seven years at the CFO level. She has worked in various business environments and industries, including financial institutions, entertainment, manufacturing, education, wholesale distribution, staffing, real estate and not-for-profit.

**Kapp Johnson**

Senior Lecturer in Business, 2006  
B.S., University of Wyoming  
M.A., Claremont School of Theology  
M.Div., Pacific Lutheran Theological Seminary  
J.D., University of La Verne College of Law

Kapp Johnson is an ELCA pastor and attorney with a joint appointment in the School of Business and Department of Religion, where he teaches courses in biblical studies and business, economics and Christian ethics. His scholarly interests include biblical legal texts, Ezekiel, hermeneutics and the intersection between faith and the work place.

**Edward H. Julius**

Professor of Business Administration, 1981  
B.A., Rutgers University  
M.S., The Wharton School, University of Pennsylvania  
C.P.A. Certificate, State of Illinois

Ed Julius' specialty is financial accounting, which he teaches in the traditional undergraduate and ADEP programs. Professor Julius has published numerous learning and teaching aids to accompany accounting textbooks, as well as six highly regarded crossword puzzle books. He has also published four books on rapid calculation, one of which appears in seven languages and was a Book-of-the-Month Club selection for nine consecutive years. His outside interests include vintage jazz, Broadway musicals, pop culture, wordplay, comedy, old movies, bowling and the Boston Red Sox.

**Kristopher Karsten**

Assistant Professor of Biology, 2011  
Ph.D., Oklahoma State University

Kris Karsten describes himself as "an ecologist who integrates evolution, behavior and physiology into research, mostly using lizards as a model system." After earning his Ph.D. in zoology from Oklahoma State University, he conducted postdoctoral research at Texas Christian University. He also holds a B.S. in biology from Truman State University and an M.S., also in biology, from TCU. As an instructor at the University of Central Oklahoma, he was recognized by the Alpha Lambda Delta Honor Society for teaching service in animal biology. He also won a zoology teaching assistant award at Oklahoma State.

**Louise Kelly**

Assistant Professor of Exercise Science, 2008  
B.S.C., Ph.D. University of Glasgow

After completing a post-doctoral research fellowship in the Department of Developmental Medicine at the University of Glasgow, Louise Kelly accepted an appointment as a research associate in the Department of Preventive Medicine at University of Southern California. Dr. Kelly's research and publications speak to her interest in the effects of nutritional, socio-economic and environmental influences on the exercise habits, issues of obesity and related health problems of children. She recently completed two research projects funded by the National Cancer Institute. A grant from the National Center on Minority Health and Health Disparities is supporting a current project titled "Obesity in Minority Youth in Los Angeles: A Generation 'At Risk.'"

**Hala King**

Associate Professor of Mathematics, 2002  
B.S., M.S., American University of Beirut  
Ph.D., Stanford University

Hala King established herself as an effective teacher while serving as a member of the adjunct faculty at CLU. Recognized by her students as a faculty member who "goes the extra mile," Dr. King has a clear vocation for teaching. Her research interests lie in number theory and geometric analysis. She is committed to providing students with rich learning experiences and is involved in supervising undergraduate research at CLU.

**Eric Kinsley**

Senior Lecturer in Music, 2009  
B.A., California State University Northridge  
M.A., California Institute of the Arts  
Ph.D., Manhattan School of Music

Eric Kinsley is a performing artist and educator who studied with Albert Fuller at Juilliard, Kenneth Cooper at Columbia, Trevor Pinnock of Guild Hall, and Leonid Hambro in New York City. He has performed and lectured widely in Los Angeles and has toured with the New York Contemporary Band, Pacific Classical Players, and as accompanist for Don Krim and Marlo Partamian. Kinsley has been seen and heard on National Public Radio and Television, as well as recorded concerts and radio shows for the Radio de Strato in Rome, and Sundays at 4 at the Bing Theatre. He has received grants from the NEA and the New York Harpsichord Society, and has written a book on the music of Franz Joseph Haydn.

**Steven C. Kissinger**

Professor of Psychology, 1991  
B.A., University of Wisconsin, Milwaukee  
M.A., Ph.D., Kent State University

Steven Kissinger teaches courses in experimental psychology. His research interests include physiology and animal models of learning and memory. His interests are not limited to the lab, however, as he also enjoys building furniture, remodeling houses and restoring antique communications equipment.

**Myungsook Klassen**

Professor of Computer Science, 1998  
B.S., Sogang University, Korea  
M.S., Kansas State University  
M.S., Ohio State University  
Ph.D., Case Western Reserve University

Before coming to CLU, Myungsook Klassen held assistant and associate professorships at Chinese University of Hong Kong and at Soochow University in Taipei. In addition to her established research record and teaching skills, Dr. Klassen has several years of experience working in industry as a programmer and systems analyst. Her doctoral work and specialty lie in artificial intelligence (AI), machine learning and pattern recognition. Her recent research interest is in data mining, bioinformatics and Web mining.

**Jodie Kocur**

Assistant Professor of Psychology, 2008  
B.A., Pepperdine University  
M.A., Ph.D., Colorado State University

While completing her doctorate in counseling psychology, Jodie Kocur focused her clinical training on therapy and assessment with children, adolescents and families. She completed a clinical internship at The Help Group in Sherman Oaks where she was a therapist for children with special needs. She is currently working on completing the requirements for her licensure as a psychologist. Dr. Kocur's research interests include the developmental origins of the experience and expression of anger, as well as the impact of parental physical aggression on children. She runs a research team for students interested in working with her on these topics, but also enjoys mentoring students on their own research studies within the areas of developmental, clinical or counseling psychology.

**Julie M. Kuehnel**

Professor of Psychology, 1975  
B.A., California Lutheran College  
Ph.D., University of Texas, Austin

Julie Kuehnel co-chairs the Department of Psychology at CLU and is a coordinator of the Social and Behavioral Sciences Division. She is the second CLC graduate to return to CLU to teach. Her primary focus has been to challenge and engage students in the classroom and to mentor them towards fulfilling their career aspirations. Dr. Kuehnel has published a book on marital therapy, and journal articles and book chapters on behavior therapy. Her most recent book is a text titled *Evil Minds: Understanding and Responding to Violent Predators*, which she uses in her Criminal Psychology course. She is currently working on a supplemental text on the applications of learning theory to relationships. Dr. Kuehnel received the 2010 President's Award for Excellence in Teaching.

**Michele LeBlanc**

Professor of Exercise Science, 2003  
B.S., Indiana University  
M.S., University of North Carolina  
Ph.D., Indiana University

Prior to her appointment at CLU, Michele LeBlanc held faculty positions at several universities and a research position as a Health Science Specialist in the Physical Medicine and Rehabilitation Gait Lab for the Greater Los Angeles V.A. Hospital. Her research focuses on flail-like motion and its role in many high velocity movements as well as how intersegmental dynamics contributes to human performance. Dr. LeBlanc has been funded by the United States Olympic Committee to serve as the biomechanist for American elite-level javelin throwers. She is currently conducting research on how exercise programs can effectively prevent falls in the elderly.

**Kirk M. Lesh**

Instructor in Economics, 2009  
B.S., University of Colorado, Boulder  
M.B.A., University of California, Irvine  
Ph.D. candidate, University of California, Santa Barbara

Kirk Lesh is Senior Economist at the CLU Center for Economic Research and Forecasting (CERF). His current research interests include the impact of public unions on governments and real estate. Prior to coming to CLU, he was the Real Estate Economist at the Economic Forecast Project at UCSB,

where he prepared and presented annual real estate forecasts for several communities in Central California. Additionally, Lesh served as a consultant on several large, community-orientated projects.

**Helen Ahm Lim**

Associate Professor of Criminal Justice, 2005  
B.A., University of California, Irvine  
M.A., Ph.D., Indiana University

Helen Lim's research and teaching interests include hate crimes, criminology, race, gender and crime, and white collar crime. Her current research focuses on hate crimes against Asian Americans. Dr. Lim has held teaching positions at Indiana University and Raritan Valley College.

**Lisa Loberg**

Senior Lecturer in French, 2005  
B.A., California Lutheran University  
M.A., Boston College

Lisa Loberg is a half-time lecturer and Director of CLU's Study Abroad Program. She received her bachelor's degree magna cum laude in French and English and was a Pi Delta Phi (French National Honor Society) scholarship recipient for the Study Abroad Program at the Institute for American Universities in Avignon, France. While working on her master's at Boston College, she served as a Teaching Fellow in the Department of Romance Languages and Literatures and received the Donald J. White Teaching Excellence Award. She has also worked for both the Boston College Center for International Studies and The American University of Paris.

**Kenneth Long**

Associate Professor of Biology, 1989  
B.A., San Francisco State University  
Ph.D., University of California, Santa Barbara

Kenneth Long teaches courses in vertebrate anatomy and physiology, cell biology and neuroscience. His general research interest is in neuroscience, specifically the cell biology of the vertebrate retina. Dr. Long involves undergraduates in research utilizing anatomical, biochemical and electrophysiological techniques. His outside interests include natural history, acoustic music and t'ai chi.

**Maureen Reilly Lorimer**

Assistant Professor of Education, 2009  
B.A., M.A., Pacific Oaks College  
Ph.D., Claremont Graduate University

Maureen Lorimer teaches educational foundations, methods and advanced methods courses in the teacher credential program as well as educational research courses in the M.Ed. program. She has had extensive experience in K-12 education as a classroom teacher, teacher mentor, staff development presenter and program coordinator. Her research interests include using arts education to promote social justice and equity in learning and teaching.

**Schannae Lucas**

Assistant Professor of Criminal Justice, 2008  
B.S., University of California, Irvine  
M.A., Ph.D., Washington State University

Shannae Lucas came to CLU from Lewis University, where she was an assistant professor of justice, law and public safety studies. She also has taught at Washington State University. Dr. Lucas' work has taken her to Garden Grove, Calif., where she worked on Monitor II/Special Projects for the Community Correctional Center and to Santa Ana, where she interned for the U.S. Probation and Parole Office. She also has considerable experience as a research assistant at Washington State.

**Jacqueline Lyons**

Assistant Professor of English, 2011  
Ph.D., University of Utah

Jacqueline Lyons earned her B.A. in English and sociology at the University of Wisconsin, Eau Claire, her M.A. in creative writing at Colorado State University and her Ph.D. in literature and creative writing at the University of Utah. Her third volume of poetry won the 2010 Del Sol Poetry Prize; her other poems, essays and criticism have appeared in more than 25 journals and anthologies. She has taught at Washington State University, the University of Nevada, Las Vegas, and Colorado State, and was a Peace Corps volunteer in the southern African nation of Lesotho.

**David J. Marcey**

Professor of Biology, 1999  
B.A., College of Wooster  
Ph.D., University of Utah

David Marcey is Fletcher Jones Professor of Developmental Biology and a member of Project Kaleidoscope's F21 (Faculty for the 21st Century). His research in *Drosophila* developmental genetics has been funded by the American Cancer Society, NSF, and the Fletcher Jones Foundation. Dr. Marcey

has considerable pedagogical experience with molecular modeling. His modeling website, The Online Macromolecular Museum ([www.callutheran.edu/BioDev/omm/gallery.htm](http://www.callutheran.edu/BioDev/omm/gallery.htm)), pioneered the use of Web-based tutorials in macromolecular structure. Marcey's tutorials, often co-authored with undergraduate students, have accompanied several prominent textbooks, and he has served on the editorial boards of Biochemical and Molecular Biology Education (Elsevier), [biomednet.com](http://biomednet.com), and Project MERLOT, an online peer reviewed journal of digital learning tools. He currently chairs the Committee of Examiners for the Graduate Record Examination in Biology (Educational Testing Service).

#### **Jose Marichal**

Associate Professor of Political Science, 2004  
B.S., Florida State University  
M.S., Florida Atlantic University  
Ph.D., University of Colorado, Boulder

Jose Marichal teaches and writes about public policy, race and politics, civic engagement, the Internet and politics, and community development. His current projects include examining how the Internet affects cross-cultural interaction, exploring the relationship between diversity and civic engagement, and identifying Latino youth understandings of civic leadership.

#### **Maura Martindale**

Assistant Professor of Education, 2007  
B.A., Annhurst College  
M.Ed., Smith College  
Ed.D., University of Southern California

Maura Martindale is Director of the Deaf and Hard of Hearing Program. Her specialization is in teaching spoken language to children with hearing loss and parent education. Dr. Martindale taught general education students in public schools in Connecticut before teaching and leading programs at John Tracy Clinic for Deaf and Hard of Hearing Children and in the USC graduate program.

#### **Charles Maxey**

Professor of Management, 1991  
B.A., M.A., Ph.D., University of Illinois at Urbana-Champaign

Charles Maxey serves as Dean of the School of Business and teaches courses in strategic management, human resources and organizational behavior. Author or co-author of numerous academic articles, he is also active as a business and litigation consultant and labor arbitrator. His previous academic appointments were at Northwestern University, Loyola University of Chicago and the University of Southern California, where he also served as Senior Associate Dean of the Graduate School of Business. Immediately prior to joining CLU's faculty, Dr. Maxey was visiting professor of management at the Sasin Graduate Institute of Business Administration in Bangkok, Thailand.

#### **Michael McCambridge**

Associate Professor of Education, 2002  
B.S., Ohio University  
M.Ed., Pepperdine University  
Ed.D., University of San Francisco

With 40 years of teaching and administrative experience at the elementary, middle school, secondary and higher education levels, Michael McCambridge maintains a deep interest in the growth and development of children and adolescents as they mature physically, cognitively, socially and morally. As a university professor, he creates opportunities for teachers and teachers in training to explore how teaching and learning theory inform good practices that result in academic, personal, social, and moral growth and development of K-12 students. Dr. McCambridge was awarded the President's Award for Excellence in Teaching in 2008 and was voted Professor of the Year for 2009 by the senior class.

#### **Robert J. Meadows**

Professor of Criminal Justice, 1991  
B.S., Northern Arizona University  
M.S., Ed.D., Pepperdine University  
Ph.D., Claremont Graduate School

Bob Meadows has had years of teaching and research experience in addition to time spent in law enforcement and private industry. His research and teaching interests include violence and victimization and legal issues in criminal justice. He is a member of several editorial boards and has authored a number of articles, research reports and books. His most recent books are *Understanding Violence and Victimization*, now in its fifth edition, and *Evil Minds*, both published by Prentice-Hall.

#### **Marja Mogk**

Associate Professor of English, 2004  
B.A., University of Michigan  
Ph.D., University of California, Berkeley

Marja Mogk's areas of expertise include medical humanities, studies on disability and aging, American and Native American literature, and dramatic and creative nonfiction writing. She is co-author of *Macular Degeneration: The Complete Guide to Saving and Maximizing Your Sight* (Ballantine, 2003).

**Wyant Morton**

Professor of Music, 1992  
B.A., B.B.A., Gonzaga University  
M.M., D.M.A., University of Arizona, Tucson

Wyant Morton is Director of Choral and Vocal Activities and Chair of the Music Department. In addition to overseeing the work of the CLU Choir, Morton conducts all of the choral ensembles in the Music Department, teaches conducting and supervises the voice faculty. He also maintains an active schedule as a guest conductor, clinician and adjudicator appearing throughout the United States and Canada and holds memberships in a number of professional organizations. In fall 2009, he launched Areté, a professional vocal ensemble in residence at CLU.

**Susan Murphy**

Professor of Business, 2002  
B.B.A., M.B.A., Texas Tech University  
Ph.D., University of Illinois at Chicago

Susan Murphy teaches courses in human resources management, organization development and organizational behavior in the MBA, traditional undergraduate and adult degree programs. Dr. Murphy is author of an article on human relations titled "Understanding Social Loafing: The Role of Justice Perceptions and Exchange Relationship." She has served as a reviewer for professional journals and has additional research interests in trust, cross-cultural teams and organizational citizenship behavior.

**Nancy Myers**

Senior Lecturer in Education, 2005  
B.A., University of California, Santa Cruz  
M.A., California State University, Los Angeles

Nancy Myers is Coordinator of the Multiple Subjects Program in the School of Education and Director of the California Reading and Literature Project. She also teaches a variety of courses in the Teacher Education Department. Myers has worked in the field of K-6 public education for more than 20 years. As an educator, she is dedicated to empowering future and current teachers to "Be the change you want to see in the world" (Gandhi).

**Adina Nack**

Professor of Sociology, 2003  
B.A., University of California, Irvine  
Ph.D., University of Colorado, Boulder

Adina Nack was founding Director of CLU's Center for Equality and Justice. Before coming to CLU, Dr. Nack served as Director of the Sexual Health Education Program at the University of Colorado at Boulder and was an assistant professor of sociology at the University of Maine. She is a medical sociologist who has been active in health education and research since 1994: her research focuses on sexual and reproductive health, social inequality, social psychology, gender and sexuality. Nack's academic articles have been reprinted in more than a dozen anthologies, and she has won awards for her research, teaching, activism and public policy work. Her research-based book on women's sexual health *Damaged Goods?* was published by Temple University Press in 2008.

**David Nelson**

Assistant Professor of History, 2011  
Ph.D., Indiana University

David Nelson comes to CLU from Austin Peay State University, where he was recently recognized for excellence in teaching. He earned his M.A. and Ph.D. at Indiana University, where his major field was pre-modern East Asian history, and his B.A. at Utah State University, majoring in Asian studies and minoring in Chinese. Nelson's research and teaching interests include samurai culture and Japan's relationship with the Asian continent. As a faculty member at APSU in Clarksville, Tenn., he has served as history club adviser and involved his students in community service projects such as the cleanup of a local slave cemetery.

**Dru L. Pagliassotti**

Professor of Communication, 1998  
B.A., University of California, Santa Barbara  
M.A., Ph.D., University of Southern California

Dru Pagliassotti teaches news writing, editing, Web publishing and film theory. Her research combines the study of mass media with the sociology of gender and sexuality. She is currently examining the introduction and spread of yaoi manga and male/male romance novels within the West and is co-editor of the academic collection *Boys' Love Manga: Essays on the Sexual Ambiguity and Cross-Cultural Fandom of the Genre*, published by McFarland in 2010. Dr. Pagliassotti also runs The Yaoi Research Wiki ([www.yaioiresearchwiki.com](http://www.yaioiresearchwiki.com)) and The Harrow Press ([www.theharrowpress.com](http://www.theharrowpress.com)). Her romantic fantasy *Clockwork Heart* was published by Juno Books in 2008, and her contemporary horror *An Agreement with Hell* was published by Apex Book Company in 2010.

**Michael Pearce**

Associate Professor of Art, 2005  
B.A., Dartington College of Arts  
M.F.A., University of Southern California

Ph.D., Plymouth University, England

Michael Pearce is an accomplished oil painter, installation designer, and an award-winning theatrical scenic designer. He is Chair of the Art Department and curator of the Kwan Fong Gallery of Art and Culture, which under his direction hosts continuous exhibitions by well-known outside artists, as well as CLU faculty and students. He considers teaching painting and drawing to CLU students the most rewarding job of his life.

#### **Edlyn Vallejo Peña**

Assistant Professor of Education, 2009  
B.A., University of California, Santa Cruz  
M.Ed., Ph.D., University of Southern California

Edlyn Peña teaches a number of research methods and content courses in the area of higher education. She also serves on a number of dissertation committees for students pursuing the Doctor of Education. Peña served as an assistant professor of clinical education at USC, where, in addition to teaching courses at the master's and doctoral levels, she led workshops for the Doctoral Support Center to advise students through the dissertation process. Her areas of expertise include action research/collaborative inquiry in higher education, faculty development, and equitable educational outcomes for college students.

#### **Chang-Shyh Peng**

Professor of Computer Science, 1997  
B.S., National Taiwan University  
M.S., Ph.D., University of Texas at Dallas

Chang-Shyh Peng develops and teaches a wide spectrum of undergraduate and graduate level computer science courses. He also has considerable experience in working with business to develop curricular offerings that are responsive to the needs of the corporate community. Dr. Peng's interests include Local Area Network/Wide Area Network, data communication and networking, parallel processing, client/server development and graphical user interface. He has published numerous articles on network simulations and modeling, fuzzy network applications, and design and analysis of algorithms.

#### **George J. Petersen**

Dean of the Graduate School of Education, 2010  
B.A., M.A., Ph.D., University of California, Santa Barbara

Most recently, George Petersen served as Co-director of the Joint Doctoral Program in Educational Leadership at University of California, Santa Barbara/California Polytechnic State University, San Luis Obispo. His former positions include Chair of the Department of Graduate Studies in the College of Education at Cal Poly and Associate Director of the University Council for Educational Administration, a national research and policy organization. Petersen has extensive experience in program and curriculum development, having designed and taught courses at the undergraduate, master's and doctoral levels. He has also written two books and numerous articles on educational leadership.

#### **Mindy Puopolo**

Assistant Professor of Psychology, 2004  
B.S., Plymouth State University  
M.Ed., Notre Dame College  
Psy.D., Pepperdine University

Mindy Puopolo is Director of CLU's Graduate Programs in Psychology. She has held adjunct teaching positions at California State University Northridge, where she earned an award as the Distinguished Faculty Member of the Year, and at Phillips Graduate Institute. Dr. Puopolo's research interests include gender and sexuality, peace psychology, cognitive psychology and attachment theory. Puopolo is a licensed clinical psychologist who specializes in neuropsychological assessment and psychodynamic psychotherapy with an emphasis on object relations theory. She maintains a private practice in Ventura County and serves as a reviewer for the California Board of Psychology's mandatory continuing education program.

#### **Michael Quinlan**

Visiting Assistant Professor of Chemistry, 2011  
Ph.D., University of California, Berkeley

Michael Quinlan is not new to CLU, having taught in the chemistry department from 1996 to 1997. More recently, he served as general chemistry laboratory coordinator and a research associate at the University of Southern California. Quinlan earned his B.S. in chemistry at West Chester State College and his M.S. and Ph.D. in physical chemistry at the University of California, Berkeley – the latter after a period spent working in industry with SRI International.

#### **Eva Leticia Ramirez**

Associate Professor of Spanish, 1996  
B.A., M.A., Ph.D., Arizona State University

Eva Ramirez has taught courses on Spanish language, Latin-American culture and civilization, theory of contemporary culture and Mexican literature. A researcher of Mexican and Latin American literature as well as literary and culture theory, Dr. Ramirez has published articles on Mexican literature and literary and nonliterary forms of sociocriticism on Mexico. She also works with the Upward Bound Program as a faculty adviser and a guest lecturer. She holds membership in a number of honorary societies and professional organizations, including Phi Beta Kappa.

**Bryan Rasmussen**

Assistant Professor of English, 2008  
B.A., University of Illinois, Urbana-Champaign  
M.A., Ph.D. Indiana University

Bryan Rasmussen is a former Charlotte W. Newcombe Fellow in Religion and Ethics (Woodrow Wilson Foundation) and has served as Managing Editor of the journal *Victorian Studies*. He specializes in British literary and cultural history of the 19th century. His current book project, *Spiritual Ethnographies: Science, Religion, and Ethics in the Nineteenth Century*, explores religion's role in shaping 19th-century social science. Dr. Rasmussen sits on the Advisory Board of CLU's Office of Undergraduate Research and enjoys mentoring students on guided research projects.

**Michaela C. Reaves**

Professor of History, 1987  
B.A., California Lutheran University  
M.A., California State University, Northridge  
Ph.D., University of California, Santa Barbara

Michaela Reaves specializes in American history, with an emphasis in sociocultural history. Her dissertation work was in the social organization of agrarian societies in California in the 1870s, and she recently published an essay for the Alexander Street Database on fractious farmers. She is working on a paper titled "The Colonial Crone: Women and Menopause in Colonial America." Dr. Reaves received the President's Award for Teaching Excellence in 2004 and has been chosen Professor of the Year three times. In 2008 she collaborated with the Moorpark Unified School District to bring a U.S. Department of Education grant for Teaching American History (TAH) to three local school districts.

**Craig Reinhart**

Associate Professor of Computer Science, 2002  
B.S., California State University, Northridge  
M.S., Ph.D., University of Southern California

Craig Reinhart came to CLU from the computer science industry where he directed research in high-level visualization and image processing programs. The author of a number of articles and conference papers, Dr. Reinhart worked at Hughes Aircraft and the Rockwell International Science Center before becoming the manager of a software development company where he patented a number of innovative processes.

**Karen Renick**

Professor of French, 1972  
Certificat du Lycée Climatique de Gérardmer, France  
B.A., Occidental College  
M.A., Middlebury College  
Ph.D., University of Southern California

Besides teaching intermediate and advanced French courses, Karen Renick has led several classes to France to study the country's culture and civilization. A member of the Paris Advisory Council in conjunction with the Study Abroad programs in France, she also supervises student teachers of French in CLU's undergraduate and graduate programs. Dr. Renick serves as National Editor of the Pi Delta Phi newsletter, member of the Pi Delta Phi Executive Board and liaison with the Délégation du Québec de Los Angeles. She is also a member of several professional organizations.

**Daniel Restuccio**

Instructor in Multimedia, 2003  
B.F.A., Syracuse University

Daniel Restuccio is West Coast Editor of *Post Magazine*, a trade publication that covers production and post-production in the film and television industry. He is owner and Chief Creative Officer of Realwork Entertainment, which is currently in production on a digital feature project and completing post production on three documentaries. He is a former producer at Walt Disney Interactive and Walt Disney Imagineering and has worked on a number of Disney projects for DisneyWorld's EPCOT Center, Disney/MGM Studios and the DiscoverQuest series. For his high-tech multimedia work for the AT&T InfoQuest Center, he received a CINE Gold Eagle Award, an ITVA Silver Award, and a Bronze Award from the Houston and New York International Film Festivals.

**Dennis Revie**

Professor of Biology, 1988  
B.A., Ph.D., University of California, Davis

Dennis Revie's current research is focused on understanding the replication of several mammalian viruses. The majority of the work focuses on understanding the replication of the Hepatitis C virus (HCV), which causes liver and blood diseases. One student project involved determining if HCV, HIV (which causes AIDS) and Human Herpes Virus 6 (HHV-6) can simultaneously infect the same cells. Another project, done in collaboration with the California Institute of Molecular Medicine (CIMM), involves looking at different strains of Feline leukemia virus (FeLV), a major cause of leukemia in cats. Dr. Revie and his students are also working on other genomics projects, in collaboration with another university and on their own.

**L. Jeanne Ricci**

Lecturer in Education, 2009  
B.A., Northeast Louisiana University

M.A., California Lutheran University

Jeanne Ricci is Coordinator of Teacher Candidate Placement and a part-time faculty member. She has been particularly active in facilitating CLU's partnerships with Moorpark Unified School District, where she worked for many years as a teacher, program coordinator, project director and elementary principal. As principal, she provided strong leadership for Walnut Canyon, a magnet school for the visual and performing arts. Ricci is a member of the Association of California School Administrators and has been honored with a number of professional awards. Before moving to California, she was a classroom teacher in Louisiana, Texas and Florida.

**Jane Rider**

Assistant Professor of Exercise Science, 2003  
B.S., M.S., Truman State University  
Ph.D., University of Utah

Jane Rider has taught in the Exercise Science Department since 1996. Her specialty area includes the pedagogy courses. A former coach, Dr. Rider has held a variety of positions at Truman State University, University of Utah, Cerritos Junior College, Chapman University and the Boise Unified School District. Her areas of interest include women in sport, running, strength training and scuba diving.

**Linda A. Ritterbush**

Professor of Geology, 1981  
B.S., M.S., California State University, Northridge  
MAGL, Fuller Theological Seminary  
Ph.D., University of California, Santa Barbara

Linda Ritterbush teaches courses in geology (paleontology, historical geology, water resources) and in the interdisciplinary environmental science major, for which she is current Program Director. Trilobites (fossil arthropods) are a recurrent fascination for Dr. Ritterbush, who has published on extinction patterns, paleoecology, and functional morphology of Agnostid Trilobites. She also speaks and writes on science and religion topics, including evolution controversies and ethical food production. In her spare time, she enjoys hiking, backpacking, kayaking, food gardening, music and reading.

**Mariana Robles-Dalany**

Assistant Professor of Education, 2009  
B.A., University of Southern California  
M.A., California State University, Los Angeles  
Ph.D., Claremont Graduate University

Mariana Robles-Dalany is Coordinator of the Liberal Studies Program and teaches education courses. She has taught and served as an administrator in both public and private K-12 schools in California, most recently as Lower School Director of Polytechnic School in Pasadena. As a native Spanish speaker and first generation college graduate, she has a keen understanding of the needs and challenges faced by a growing number of California students as reflected in her dissertation titled "Voices of Success: Narratives of College-Bound Latinas." Her interests are in brain research as it relates to attachment theory, child development, and parenting.

**Renee Rock**

Senior Lecturer in Business, 2007  
B.A., California Lutheran University  
M.A., California State University, Northridge

Renee Rock began her career as a grant writing consultant for a local nonprofit organization. After entering an MBA program, she went to work for a venture capital company developing business and marketing plans for high-tech startup companies. In 2002, she started her own communications company and has worked with an impressive list of clients including Toyota, Honeywell and Fleetwood. She recently earned a master's in rhetoric and composition from Cal State Northridge where she has taught composition courses.

**Robert (Bob) Rumer**

Lecturer in Physics, 2008  
B.S., Johns Hopkins University  
M.S. University of California, Berkeley

Bob Rumer has had 25 years in design, management and marketing of medical instruments, computers, storage systems and semiconductors. He focuses on teaching introductory-level physics and engineering classes in order to spark student interest in science and technology. Rumer's passion for teaching extends beyond his university courses. He promotes engineering to middle school and high school students, and developed and managed the AP outreach program for physics, chemistry, and calculus in 2007 and 2008.

**Jean Kelso Sandlin**

Assistant Professor in Communication, 2007  
B.A., M.P.A., California Lutheran University

Jean Kelso Sandlin joined the CLU faculty after more than 20 years of professional experience in advertising, public relations and journalism. Most recently, she served as creative director for an agency in the Pacific Northwest. Her expertise includes strategy, copywriting and corporate social

responsibility. She has directed campaigns for nonprofit organizations, education, government, waste management, healthcare and “green” retailers. Her research interests include social media, digital literacy, authenticity in new media, storytelling in new media and sustainability.

**Sigmar Schwarz**

Professor of English, 1972  
B.A., Augustana College, Sioux Falls  
M.A., Ph.D., University of Southern California

A past Woodrow Wilson Fellow and NDEA Fellow, Sig Schwarz is interested in non-Western and minority studies. He currently teaches a seminar in non-Western writers and emphasizes the Afro-American, Chicano and Native American “voices” in his writing and literature courses. Dr. Schwarz does research on the subjects of romanticism and phenomenology. He is active in the Modern Language Association and the National Council of Teachers of English.

**Christine Sellin**

Associate Professor of Art, 2006  
B.A., University of California, Berkeley  
M.A., University of California, Los Angeles  
Ph.D., University of California, Los Angeles

Christine Petra Sellin completed her advanced degrees in 17th century Dutch art history, and her research concentrates on religious art, literature, and narrative imagination in the early modern northern Netherlands. In addition to scholarly articles, Dr. Sellin published her first book, *Fractured Families and Rebel Maidservants: The Biblical Hagar in Seventeenth Century Dutch Art and Literature*, in 2006 (Continuum Books/T&T Clark, London). Her new book, *From Unholy to Holy: The Four Female Ancestors of Christ According to the Gospel of Matthew*, (with medievalist Ruth Mellinkoff) is slated for publication in early 2010 (Ruth Mellinkoff Publications, Los Angeles).

**Mary Jo Shane**

Lecturer in the School of Management  
Ph.D., The Fielding Graduate Institute

Mary Jo Shane earned a B.S. in Commerce from DePaul University, an M.A. in organizational management from Antioch University, an M.A. in organizational development and a Ph.D. in human and organizational systems, both from The Fielding Graduate Institute. She has been an adjunct professor of Management at CLU since 2005. Her research interests include virtual work, virtual teams and organizations, cross-cultural organizational issues, and ethnography.

**Michael Shaw**

Professor of Physics, 2002  
B.S., University of California, Berkeley  
M.S., Ohio State University  
Ph.D., University of California, Santa Barbara

Michael Shaw performed his post-doctoral studies at the University of Cambridge, England. Prior to his current appointment, he was Manager, Design and Reliability Department, Rockwell Scientific. Dr. Shaw enthusiastically seeks to apply his lifelong fascination for the relationships between the structure and properties of all forms of matter to topics in aerospace, power electronics, biomaterials and astrophysics through individual research projects with undergraduate students in his lab. He has received several awards for his publications and presentations, and has more than 45 publications, including a recently published book.

**Dennis Sheridan**

Professor of Education, 2006  
B.A., Louisiana Tech University  
M.Ed., Louisiana State University  
M.A., Ed.D., Southwestern Baptist Theological Seminary  
Ph.D., University of California, Los Angeles

Dennis Sheridan joined the School of Education faculty as a professor in the doctoral program and as Director of the Higher Education Leadership Program. His career in education began in 1975 as a high school teacher of English and social studies. It then took an interesting turn as he transitioned into the field of College Student Affairs, first at Texas Christian University and then at California Baptist University where he served as Vice President for Student Affairs for 10 years. Prior to CLU, Dr. Sheridan spent 12 years on the graduate faculty at Azusa Pacific University, chairing the Department of Higher Education and Organizational Leadership.

**Beth Anderson Smith**

Associate Professor of Education, 2000  
B.S., Ph.D., University of Colorado  
M.A., Point Loma Nazarene College

Beth Anderson Smith teaches and supervises teacher candidates pursuing their single subject credentials and master’s in education. She has been a bilingual educator for 25 years, in addition to earning her Ph.D. in social, multicultural and bilingual foundations of education and bilingual teacher certification from San Diego State University. She has taught, supervised and led professional development activities at all educational levels (K-12,

adult education and higher education) and has had substantial experience with culturally and linguistically diverse students, families and communities both in California and Colorado.

**Terry Spehar-Fahey**

Lecturer in Art, 2006

B.A., University of California, Los Angeles

M.B.A., Loyola Marymount University

Terry Spehar-Fahey earned her bachelor's degree in painting, sculpture and graphic arts. She has held various teaching and corporate positions in the arts and in business. For the past 20 years, she has been represented by a number of galleries in California including Gallerie Barjur in Mammoth Lakes and High Studio Art Gallery in Moorpark. Spehar-Fahey teaches drawing, watercolor and visual arts in education hoping to inspire her students with the joy of making art that reflects their unique self. She is interested in the study of creativity, art and neuroscience and in the role that the arts can play in mental health. Her latest work is derived from that interest.

**Mark Spraggins**

Associate Professor of Music, 1998

B.A., Auburn University

M.A., Butler University

D.M.A., University of Southern California (ABD)

Mark Spraggins is active as a composer, musician, and educator. He has composed works for symphony orchestra, choir, wind ensemble, percussion ensemble and various chamber groups. He has received a number of notable awards for his compositions including first prize in the 2000 MACRO international choral competition. He has received commissions from the Indianapolis Youth Symphony and Indianapolis Children's theater among others. In addition, his music has been performed live on KUSC Los Angeles (Public Radio). Dr. Spraggins has also written and produced music for television programs on the History Channel and the A&E Network.

**Harry Starn Jr.**

Executive in Residence in the School of Management, 2009

B.S., United States Military Academy, West Point

M.S., University of Colorado, Boulder

Harry Starn is Executive in Residence in the MBA in Financial Planning Program and serves as Associate Director of the California Institute of Finance. His professional certifications include the Chartered Financial Analyst (CFA) and the Certified Financial Planner (CFP®) designations. Starn has taught in the online MBA in Financial Planning Program since 2005 and has more than 20 years of experience in the financial services industry. He manages the fee-only financial planning practice Action Financial Planning LLC. Prior to starting his own practice in 1996, he worked as a registered representative with Financial Network Investment Corporation and later served as the Manager of Special Directors' Services with Lipper Analytical Services, Inc., a consulting department to the mutual fund industry.

**Diana Stephens**

Associate Professor in Education, 2006

B.A., California State University, Los Angeles

M.A., University of Redlands

M.A., Ph.D. Candidate, Fielding Graduate University

Diana Stephens teaches a variety of courses focused on the theoretical and practitioner skills of professional school counselors. She supervises counseling candidates in k-12 settings, fostering their skill development as school counseling leaders and regularly participates in regional, state and national conferences conducting professional development workshops and presentations. She serves as a Board Member for the Ventura County School Counselors Association and is a Board Institutional Representative for the California Commission on Teacher Credentialing, assessing school counseling programs throughout the state. As Project Coordinator for a grant-funded partnership between CLU and Ventura Unified School District, Dr. Stephens works collaboratively with the superintendent, principals, teachers and school counselors creating systemic change by infusing social emotional curriculum into schools.

**Brian Stethem**

Instructor in Art, 2005

B.A., California Lutheran University

M.F.A., California Institute of the Arts

Brian Stethem has been a fine art photographer for more than 20 years and has exhibited throughout California. In addition to his fine art work, Stethem is a commercial photographer, creating portrait, event publication and advertising photographs. He also works as a professional retoucher for a commercial photography studio.

**Bruce R. Stevenson**

Associate Professor of English, 1996

B.A., California Lutheran University

M.A., Ph.D., University of Colorado, Boulder

Bruce Stevenson serves as Coordinator for the Humanities Division and teaches courses in American literature, history of the novel, literary criticism and early American fiction. His scholarship centers on the post-Revolutionary novel in America and on the ways the discourse of the period articulates social and political anxieties. Dr. Stevenson's most recent project focuses on the Perez Morton/Frances Apthorp scandal in 1788 Boston and on the ways the scandal impacted the intentions behind the writing of the first American novel, *The Power of Sympathy*. Dr. Stevenson is also the faculty sponsor for CLU's chapter of Sigma Tau Delta, the international English honor society.

**Walter K. Stewart**

Professor of German, 1979  
B.A., California State University, Northridge  
M.A., Ph.D., University of California, Los Angeles

A specialist in German language and literature, Walter Stewart also lectures on German and American film genres, film structure and criticism and in selected philosophy courses. Dr. Stewart publishes widely on various subjects including Goethe's works, Nietzsche's philosophy, European and American folklore and structuralism. He also maintains membership in the Goethe Society of North America, the Modern Language Association and other professional organizations.

**Russell L. Stockard Jr.**

Associate Professor of Communication, 1991  
B.A., Harvard College  
M.A., Harvard University  
M.B.A., University of California, Los Angeles  
Ph.D., Stanford University

Russell Stockard's interests include new media, particularly marketing and advertising on the World Wide Web and use of new media by diasporic communities of color; sports-related marketing and media; media management; cultural studies; environmental communication; tourism and Caribbean and Latin American studies. His previous professional experience includes satellite communications, telecommunication and cable television. He is active in the Caribbean Studies Association and formerly served as president of the Southern California Chapter of the National Association of Minorities in Cable. Dr. Stockard has done broadcast journalism in Costa Rica and for KCLU-FM, a National Public Radio affiliate located on the CLU campus.

**Jarvis Streeter**

Professor of Religion, 1988  
B.A., University of Southern California  
M.Div., Luther Theological Seminary  
S.T.M., Yale University Divinity School  
Ph.D., Southern Methodist University

A specialist in historical, systematic and philosophical theology, Jarvis Streeter has particular interests in the Christian doctrines of Christology, soteriology, human nature and sin as well as historical Jesus studies and the relationship between science and theology. He has served as a parish pastor, taught high school in an East African village and worked on an archaeological excavation in Israel. Dr. Streeter also studied as a Research Fellow at Yale University and is a member of the American Academy of Religion.

**John Tannaci**

Assistant Professor of Chemistry, 2008  
B.S., Stanford University  
Ph.D. University of California, Berkeley

John Tannaci's research is informed by both his undergraduate field of chemical engineering and graduate work in chemistry. Dr. Tannaci likes to teach chemistry within the context of simple biochemistry and/or technology, and is interested in developing interdisciplinary course materials on organic electronics, semiconductor processing, renewable energy, polymer chemistry and nanotechnology. His interest in science education has prompted him to participate in outreach programs to elementary and middle schools.

**Victor Thasiah**

Assistant Professor of Religion, 2011  
Ph.D., Oxford University

Victor Thasiah earned a B.A. in psychology at University of California, Santa Cruz, an M.Div. at Princeton Seminary and, after a research fellowship in theology at the University of Tübingen in Germany, a Ph.D. in theology at Oxford University. His subsequent career included teaching at Oxford University and Elmhurst College, service in the parish at Holy Cross Lutheran Church in Ojai, an editorship at *The Journal of Lutheran Ethics*, and leadership in the Evangelical Lutheran Church of America as assistant director for studies. In the latter role, he addressed "social issues theologically through policy research and development," led the ELCA "in engaging immigration reform, criminal justice system reform and genetics issues," and organized public discussions and lectures related to science and religion.

**Samueal Thomas**

Associate Professor of Religion, 2006  
B.A., St. John's University  
M.A., University of Norte Dame  
M.Div., Yale University Divinity School

M.A., Ph.D., University of Notre Dame

Samuel Thomas conducts research on the Hebrew Bible and early Jewish texts and traditions, focusing especially on the Dead Sea Scrolls. His interests also include archeology, the formation of early Christianity in its various manifestations, and the history of Jewish-Christian relations. He is the author of *The 'Mysteries' of Qumran: Mystery, Secrecy and Esotericism in the Dead Sea Scrolls* (Society of Biblical Literature / Brill, 2009). Dr. Thomas is Associate Director of the Center for Equality and Justice, is active in campus sustainability initiatives, and teaches a course in environmental ethics. In addition to his academic work, Thomas cultivates his passion for furniture making, poetry and literature, and service and social justice.

**Nathan L. Tierney**

Professor of Philosophy, 1990  
B.A., University of Melbourne  
Ph.D., Columbia University

Nathan Tierney's main area of interest is ethics. Among other courses, he teaches ethical theory and social ethics in the undergraduate program and business ethics in the MBA program. He is the author of several papers on ethics and the book *Imagination and Ethical Ideals* (State University Press of New York, 1994). He is currently writing a book titled *Global Justice in War and Peace*. He serves on the advisory board of the Global Ethics and Religion Forum and is a partner in the ethics consulting service, Philosophy in the Real World.

**Cecelia Travick-Jackson**

Associate Professor of Education, 2003  
B.S., Hampton University  
M.Ed., University of Hartford  
Ph.D., University of New Mexico

While earning a doctorate in language, literature and sociocultural studies, Cecelia Travick-Jackson focused her dissertation on the role and relationship of religion to academic success among African-American women in academia. With an undergraduate degree in theater and a master's in secondary education, she has more than 20 years of experience as a high school teacher and drama director. At CLU, Dr. Travick-Jackson teaches courses in action research and advises master's students with action research projects.

**Diana Tsaw**

Assistant Professor of Business, 1994  
B.S., California State University, Long Beach  
M.B.A., University of Southern California  
J.D., Loyola Law School  
L.L.M., New York University

Diana Tsaw has served as a human resources manager, a corporate and tax attorney and a senior international banking executive, including assignments in Singapore and Hong Kong. Her experience and areas of expertise include legal matters, organizational behavior and international business.

**Janice Tucker**

Associate Professor of Education, 2004  
B.A., Memorial University of Newfoundland  
M.Ed., Mount Saint Vincent University  
Ed.D., Indiana University

Janice Tucker teaches courses in the master's and doctoral programs in Educational Leadership that focus on educational policy, organizational change and leadership in the K-12 system. Her prior experience includes classroom teacher and administrator in K-12 schools, curriculum consultant in elementary education and eight years in administration at the district level as Assistant Superintendent of Elementary Education and Assistant Director of Programs (K-12). Dr. Tucker has taught at both Mount Saint Vincent University and Indiana University. In addition to teaching and advising graduate students at CLU, she coordinates the Professional Clear Administrative Services Credential Program and regularly presents papers at national and international conferences.

**Gail E. Uellendahl**

Professor of Education, 1997  
B.A., Queens College  
M.S., Hofstra University  
Ph.D., New York University

Gail Uellendahl serves as Chair of the Counseling and Guidance Department where she teaches a variety of courses focused on the theory and practice of counseling. She came to CLU with more than 16 years of experience designing and implementing college counseling programs at Queens College of the City University of New York. Dr. Uellendahl has a long history of advocacy for students with disabilities and has received numerous grants and awards for her work in this area. Her current research focuses on school counseling practice. In addition to her duties in the Counseling and Guidance Program, she is a practicing licensed psychologist.

**Rafaela Fiore Urizar**

Assistant Professor of Languages and Cultures (Spanish), 2011

Ph.D., University of Chicago

Since completing her Ph.D. in contemporary Latin American literature at the University of Chicago, Rafaela Urizar taught at the Catholic University of America. She earned her B.A. in literature at Universidad Católica Nuestra Señora de la Asunción in Paraguay and her M.A. in Spanish languages and literatures at the University of North Carolina at Chapel Hill. Her teaching and research interests include Latin American narratives of dictatorship and post-dictatorship; violence, memory and trauma; contemporary Transatlantic studies; relationships among visual arts, literature and popular culture; and women writers.

#### **Seth Wagerman**

Assistant Professor of Psychology, 2007  
B.A., California State University, Northridge  
M.A., Ph.D., University of California, Riverside

Seth Wagerman has published articles and made presentations on his research regarding the dynamic interaction of persons, situations and behavior. In ongoing research with students, he has attempted to create trait-based templates for all 12 astrological sun signs in order to examine the relationships between astrological predictions, self-reported personality, and the implications of social priming. He is also creating a protocol meant to validate a measure of "Academic Entitlement" across educational institutions of varying levels. Dr. Wagerman acts as adviser to the CLU Psychology Club and Chair of the Student Life Committee.

#### **Bill Watkins**

Associate Professor of Economics, 2009  
B.S., California State University, Northridge  
M.S., Ph.D., University of California, Santa Barbara

Bill Watkins is Executive Director of CLU's Center for Economic Research and Forecasting (CERF) and Director of the new M.S. in Economics program, which he helped to launch. Prior to coming to CLU, Watkins served as Executive Director of the University of California, Santa Barbara Economic Forecast Project. During his tenure, he expanded the project's publications and geographic scope and enhanced its reputation. Previously, he served as an economist in the Monetary Affairs Division of the Board of Governors of the Federal Reserve System in Washington, D.C. Watkins has been widely published in academic journals, traditional media and new media and is quoted regularly by news organizations throughout the world on the issues of demographic trends, economic development, workforce issues, equity and California economics.

#### **Allison Wee**

Associate Professor of English, 2008  
B.A., St. Olaf College  
Ph.D., University of Minnesota

Allison Wee received her doctorate in English, specializing in British literature from the Victorian and Modernist periods. A literary historian at heart, her research focuses on government censorship, specifically, the uneven application of Britain's 19th-century obscenity law. Her wide-ranging teaching interests include classical literature, contemporary young adult literature, sex and gender studies, and general college writing skills. Before coming to CLU, she taught at several strong liberal arts colleges in the Midwest, including Carleton, Grinnell and Luther.

#### **Sheridan Wigginton**

Associate Professor of Languages and Cultures, 2011  
Ph.D., University of Missouri

Sheridan Wigginton comes to CLU from Briar Cliff University, where she chaired the Department of Spanish. Previously she taught at the University of Missouri, St. Louis, where she directed the Foreign Language Teacher Certification program while teaching Spanish in the Department of Anthropology, Sociology and Languages. After earning her B.A. in Spanish at Eastern Kentucky University, Wigginton completed an M.A. in Spanish and a Ph.D. in foreign languages curriculum & instruction at the University of Missouri, Columbia. She currently is working on a study of the impact of shifting racial and ethnic ideologies on "representations of 'black identity' in the school textbooks of the Dominican Republic."

#### **Paul Williams**

Associate Professor of Business Administration, 1992  
B.S., Old Dominion University  
M.B.A., Washington University  
Ph.D., Claremont Graduate School

Paul Williams, a Chartered Financial Analyst and a Registered Investment Adviser, teaches classes in both the undergraduate and graduate programs, including Corporate Finance, Financial Analysis, Investments, International Finance and Financial Strategy. Prior to joining CLU, he spent more than 20 years with Atlantic Richfield in numerous management positions related to Marketing, Finance and Strategic Planning.

#### **Joan Wines**

Professor of English, 1976  
B.A., M.A., University of Detroit  
M.A., Ph.D., University of Southern California

In addition to her duties as Chair of the English Department, Joan Wines has been the adviser for CLU's award-winning literary publication *Morning Glory* for the past 12 years. She also directs the Writing Center and the Center for Teaching and Learning (CTL). The CTL provides CLU faculty with one-on-one and group support that includes integrating technology into course redesigns and a Thursday Teaching and Learning series. Much of her scholarship is centered in this area. Dr. Wines is active in the Aldous Huxley research community and was an organizer for the 2008 International Huxley Symposium co-convened by CLU and the Huntington Library.

#### **Paul Witman**

Associate Professor of Business, 2006  
B.S., University of California, Los Angeles  
M.S., Ph.D., Claremont Graduate University

Paul Witman teaches Information Technology Management. His research interests are in software development and reuse, information security, Internet value for businesses, and the scholarship of teaching and learning. . Prior to joining the CLU faculty, he served as Director of Integration Engineering for Digital Insight Corp. and as Director of Global Delivery Systems at Citibank.

#### **Akiko Yasuike**

Associate Professor of Sociology, 2006  
B.A., Kwansai Gakuin University  
B.A., Gonzaga University  
M.A., California State University, Northridge Ph.D., University of Southern California

Akiko Yasuike is a sociologist whose research interests include gender, families, immigration, ethnic identity and Japanese society. Educated both in Japan and the United States, she brings international and cross-cultural perspectives into class discussions and raises awareness of global and cultural diversity in students. Dr. Yasuike is currently Program Coordinator of the Gender and Women's Studies minor and Assistant Director of the International Studies program. She is actively involved in the Japanese community in Southern California and serves as a board member for the U.S. Japan Relationship Fund, Inc.

## **University Governance**

California Lutheran University was formally incorporated on Aug. 4, 1959. The governing bodies of the University are the Convocation, the Board of Regents, the President's Cabinet and the Faculty.

### **President's Cabinet**

The President's Cabinet consists of the President, the five divisional vice presidents including the Provost and Vice President for Academic Affairs, the Vice President for University Advancement, the Vice President for Administration and Finance, the Vice President for Student Affairs and Dean of Students, the Vice President for Enrollment Management and Marketing. The Cabinet also includes the Director of Church Relations, the Director of Human Resources, the Special Assistant to the President for Diversity and the Associate Vice President for University Relations.

The President's Cabinet is the senior executive and administrative body of the University. Under the direction of the president, it is responsible for policy making, strategic planning and implementation, budget, and ensuring that institutional energies and resources are focused on accomplishing the mission and vision of the University.

### **Board of Regents**

The 30-member Board of Regents directs the administration through its policy-making role, safeguards the mission and assets of the University, authorizes budgets and strategic plans, elects the president of the University, and approves the appointment of chief administrative officers and faculty.

### **Convocation**

The 85-person Convocation, which ratifies the election of the University's Board of Regents, represents the corporation of California Lutheran University. The Convocation is made up of members of the five synods of Region II of the Evangelical Lutheran Church in America, faculty, students, the university president and members-at-large. Convocators serve as ambassadors, counselors, recruiters and development support for the University throughout a broad geographic area on the Pacific Coast and in the Southwestern region of the United States.

## **Administration**

#### **Office of the President**

Chris Kimball, Ph.D.  
*President and Chief Executive Officer*

Melissa Maxwell-Doherty '77 M.Div.  
Scott Maxwell-Doherty '76, M.Div.  
*University Pastors*

Daniel Kuntz, Ed.D.  
*Director of Athletics*

#### **Division of Academic Affairs**

Leanne Neilson, Psy.D.  
*Provost and Vice President for Academic Affairs*

Joan Griffin, Ph.D.  
*Dean of the College of Arts and Sciences*

Charles Maxey, Ph.D.  
*Dean of the School of Management*

George Petersen, Ph.D.  
*Dean of the Graduate School of Education*

Julius Bianchi, M.P.A.  
*Associate Provost for Information Services*

Maria Kohnke, M.S.  
*Associate Provost for Academic Services and Registrar*

#### **Division of Administrative Services**

Karen Davis, MBA '95  
*Vice President for Administration and Finance*

Ryan Van Ommeren, M.S.  
*Associate Vice President for Facility Operations and Planning*

Susan Tolle, M.S.  
*Director of Human Resources*

#### **Division of Enrollement Management and Marketing**

Matt Ward, Ph.D.  
*Vice President for Enrollment Management and Marketing*

#### **Division of Student Affairs**

William Rosser, M.S.  
*Vice President for Student Affairs and Dean of Students*

#### **Division of University Advancement**

Steve Wheatly '77, J.D.  
*Vice President for University Advancement*

#### **Division of University Relations**

Lynda Paige Fulford, M.P.A. '97  
*Associate Vice President for University Relations*

### **Board of Regents**

Glen Becerra  
*Regional Public Affairs Manager*  
*Southern California Edison*  
*Simi Valley, Calif.*

Wallace Brohaugh  
*Owner*  
*Brohaugh Vineyards*  
*Paso Robles, Calif.*

Rebecca Cardone '13  
*President*  
*Associated Students, CLU*

*Thousand Oaks, Calif.*

Sue Chen  
*Nova Ortho-Med, Inc.*  
*Founder, CEO*  
*Carson, Calif.*

Dennis Erickson, Ph.D.  
*Physicist (retired)*  
*Los Alamos National Laboratory*  
*Los Alamos, N.M.*

Julia L. Fogg, Ph.D.  
*Faculty Chair*  
*California Lutheran University*  
*Thousand Oaks, Calif.*

Randall Foster  
*Vice President (retired)*  
*Women's and Children's Mental Health and Rehabilitation*  
*Cedars-Sinai*  
*Los Angeles, Calif.*

Rod Gilbert  
*President*  
*TOLD Corporation*  
*Camarillo, Calif.*

Jon Irwin  
*President*  
*Rhapsody*  
*Los Angeles, Calif.*

Ted Jensen  
*Flight Test Engineer (retired)*  
*Hughes Aircraft*  
*Culver City, Calif.*

Chris Kimball, Ph.D.  
*President*  
*California Lutheran University*  
*Thousand Oaks, Calif.*

William Krantz  
*Former Principal*  
*Boston Partners Asset Management*  
*Los Angeles, Calif.*

John Larisey '10  
*Alumni Representative*  
*Moorpark, Calif.*

Jill Lederer  
*President, CEO*  
*Greater Conejo Valley Chamber of Commerce*  
*Thousand Oaks, Calif.*

Rick Lemmo  
*Senior Vice President of Community Relations*  
*Caruso Affiliated*  
*Los Angeles, Calif.*

Susan Lundeen-Smuck '88  
*Vice President, Human Resources*  
*Kythera Biopharmaceuticals, Inc.*  
*Calabasas, Calif.*

Ron McDaniel '88  
*President*  
*California Credit Union*  
*Glendale, Calif.*

The Rev. Frank Nausin '70  
*Pastor*  
*Holy Trinity Lutheran Church*  
*Thousand Oaks, Calif.*

The Rev. Dean W. Nelson  
*Bishop*  
*Southwest California Synod*  
*Evangelical Lutheran Church in America*  
*Glendale, Calif.*

Sasan Nikoomanesh, MBA '99  
*Financial Advisor*  
*Merrill Edge*  
*Simi Valley, Calif.*

Kären Olson, '83  
*President, CEO*  
*Main Tape*  
*Cranbury, N.J.*

Jim Overton  
*Principal Consultant*  
*Oracle*  
*Reston, Va.*

Karen Bornemann '70 Spies  
*Chair of the Board*  
*Author*  
*Denver, Colo.*

Mark Stegemoeller  
*Partner*  
*Latham & Watkins*  
*Los Angeles, Calif.*

Deborah Sweeney  
*President, CEO*  
*My Corporation*  
*Calabasas, Calif.*

GayLyn Talbot  
*Secretary of the Board*  
*Creative Director*  
*Talbot Design Group, Inc.*  
*Westlake Village, Calif.*

David Tiede  
*President Emeritus*  
*Luther Seminary*  
*St. Paul, Minn.*

George Ullman Jr. '76  
*President*  
*Ullman Bros. Land and Cattle Company*  
*Los Angeles, Calif.*

Tim Wennes  
*Senior Executive Vice President*  
*Union Bank of California*  
*Los Angeles, Calif.*

Joan R. Young  
*Vice President, Brokerage Manager*  
*Sotheby's Realty*  
*Westlake Village, Calif.*

#### **Honorary Regent**

Takashi Uyeno  
*President*  
*The Uyeno Group*  
*Yokohama, Japan*

## **Convocation of the University**

#### **Grand Canyon Synod**

James Day '69  
*Lake Havasu City, Ariz.*

Judy Day '69  
*Lake Havasu City, Ariz.*

The Rev. Steve Kruse  
*Scottsdale, Ariz.*

The Rev. Brent Maxwell '93  
*Paradise Valley, Ariz.*

The Rev. Richard Rouse  
*Phoenix, Ariz.*

Julia Sieger  
*Oro Valley, Ariz.*

Shari Solberg-Ayers '83  
*Tempe, Ariz.*

The Rev. Steve Talmage  
*Phoenix, Ariz.*

#### **Pacifica Synod**

Jennifer Crum '01  
*Mission Viejo, Calif.*

The Rev. Murray Finck  
*Yorba Linda, Calif.*

Brian Foxworth '00  
*Menifee, Calif.*

The Rev. John Knudson  
*Dana Point, Calif.*

Tyler Robinson '01  
*Anaheim, Calif.*

The Rev. Dan Roschke '00  
*La Mesa, Calif.*

The Rev. Tony Scheer  
*Garden Grove, Calif.*

Steve Seper '98  
*Pacific Beach, Calif.*

#### **Rocky Mountain Synod**

The Rev. James Gonia  
*Denver, Colo.*

The Rev. Ben McCracken  
*Wheat Ridge, Colo.*

Scott Moore  
*Wheat Ridge, Colo.*

Sharon Schofield  
*Buena Vista, Colo.*

Kathryn Swanson, M.A. '82  
*Fort Collins, Colo.*

Marge Doyle Versen  
*Highlands Ranch, Colo.*

Lisa Wilson '83  
Park City, Utah

#### **Sierra Pacifica Synod**

Dorothy Arata  
*Napa, Calif.*

The Rev. David Beard '75  
*Pleasanton, Calif.*

Greg Egertson '78  
*San Francisco, Calif.*

The Rev. Frank Espegren '82  
*Sacramento, Calif.*

Don Hermansen '69  
*Redwood City, Calif.*

*The Rev. Mark Holmerud*  
*Sacramento, Calif.*

Ruth Ann Johnson '65  
*Sunnyvale, Calif.*

Marvie Paulson '78  
*Davis, Calif.*

The Rev. Peg Schultz-Akerson '74  
*Chico, Calif.*

#### **Southwest California Synod**

The Rev. Edwin McGee II '76  
*San Gabriel, Calif.*

Bonnie Mohr '74  
*Monrovia, Calif.*

The Rev. Frank Nausin '70  
*Thousand Oaks, Calif.*

The Rev. Dean Nelson  
*Glendale, Calif.*

David White '87  
*Palmdale, Calif.*

#### **Convocators at Large**

Robert Gappinger '95  
*Northridge, Calif.*

Desta Goehner '96  
*Camarillo, Calif.*

Connie Gray  
*Olympia, Wash.*

Karen Ingram '74  
*Thousand Oaks, Calif.*

Susan Ruby '84  
Scottsdale, Ariz.

Melissa Ronning '83  
Seguin, Texas

Rebekkah Weinberger '03  
*Shelton, Wash.*

#### **Faculty Members of the Convocation**

Tim Hengst

Cynthia Jew, Ph.D

Michael McCambridge, Ph.D

Seth Wagerman Ph.D

Allison Wee, Ph.D

Colleen Windham-Hughes, Ph.D, M.Div

#### **Student Members of the Convocation**

Caitlyn Melillo

#### **Honorary Members of the Convocation**

Dr. and Mrs. Luther S. Luedtke  
*Newton, Mass.*

Dr. and Mrs. Mark Mathews  
*Santa Barbara, Calif.*

Dr. and Mrs. Jerry H. Miller  
*Thousand Oaks, Calif.*

#### **Former University Presidents**

John R. Sladek, Ph.D.  
2006-2007

Luther S. Luedtke, Ph.D.  
1992-2006

Jerry H. Miller, D.D.  
1981-1992

Mark Mathews, D.B.A.  
1972-1980

Raymond Olson, D.D.\*  
1963-1971

Orville Dahl, Ed.D.\*  
1959-1962

\*Deceased

# Courses of Instruction

## Contents

- Accounting
- American Studies<sup>2</sup>
- Art<sup>1</sup>
- Asian Studies<sup>2</sup>
- Biochemistry and Molecular Biology
- Bioengineering<sup>1</sup>
- Biology<sup>1</sup>
- Business Administration<sup>1</sup>
- Chinese<sup>3</sup>
- Chemistry<sup>1</sup>
- Communication<sup>1</sup>
- Computer Information Systems<sup>1</sup>
- Computer Science<sup>1</sup>
- Criminal Justice
- Economics<sup>1</sup>
- Education<sup>3</sup>
- English<sup>1</sup>
- Environmental Science
- Environmental Studies<sup>2</sup>
- Ethnic Studies<sup>2</sup>
- Exercise Science
- French<sup>1</sup>
- Geography<sup>3</sup>
- Geology<sup>1</sup>
- German<sup>1</sup>
- Global Studies<sup>1</sup>
- Greek<sup>3</sup>
- Hebrew<sup>3</sup>
- History<sup>1</sup>
- Honors<sup>3</sup>
- Interdisciplinary
- International Business<sup>2</sup>
- Languages and Cultures<sup>3</sup>
- Learning Resources<sup>3</sup>
- Legal Studies<sup>2</sup>
- Liberal Studies (Education)
- Marketing Communication
- Mathematics<sup>1</sup>

- Multimedia<sup>1</sup>
- Music<sup>1</sup>
- Music Production
- Philosophy<sup>1</sup>
- Physics<sup>1</sup>
- Political Science<sup>1</sup>
- Psychology<sup>1</sup>
- Religion<sup>1</sup>
- Science (Applied Scientific Computing)<sup>2</sup>
- Sociology<sup>1</sup>
- Spanish<sup>1</sup>
- Theatre Arts<sup>1</sup>
- Theology and Christian Leadership
- Women's Studies<sup>2</sup>

1 Minor also offered

2 Minor only offered

3 Non Major/Minor

## System of Course Descriptions

Courses of study and their descriptions are arranged according to course numbers within their departments.

The following classification system identifies a course as freshman, sophomore, junior or senior level. Freshman and sophomore courses are in the lower division; junior and senior courses are in the upper division.

The course value in semester credits is indicated within parentheses after the course title.

## Course Numbering System

- **Courses numbered 01-99**  
designate preparation courses not applicable to degree credit.
- **Courses numbered 100-199**  
are usually taken by freshman students.
- **Courses numbered 200-299**  
are usually taken by sophomores.
- **Courses numbered 300-499**  
are upper division courses normally taken by juniors and seniors. A freshman or sophomore may take upper division courses with consent of the instructor.
- **Courses numbered 500-599**  
are graduate level courses.
- **Courses numbered 600-799**  
are doctoral level courses.
- **Courses numbered 800-899**  
are professional development
- **Courses numbered 900-999**  
are Continuing Education Units (CEU).
- **Teaching Credential:** Contact the School of Education or the appropriate department adviser for a complete list of courses needed to fulfill subject matter requirements for a Multiple Subject or Single Subject Credential.

# Adult Degree Evening Program

The Adult Degree Evening Program (ADEP) is an expression of California Lutheran University's commitment to life-long learning. ADEP offers the same high quality educational program that is found in the traditional daytime program, but is tailored to meet the special needs of working adult students. The program's creative learning environment, liberal arts and professional curriculum, and exceptional faculty offer a unique opportunity for the adult learner who is seeking personal and professional advancement and development.

## Admission

### Who May Apply?

The Adult Degree Evening Program has set minimum requirements to ensure that the adult orientation of the program is maintained. You may apply if you:

1. have graduated from high school or possess a G.E.D. certificate
2. have completed 12 transferable semester hours of college credit
3. have a cumulative grade point average of at least 2.25
4. are at least 25 years of age (exceptions may be made for students with exceptional work experience and a letter of recommendation)
5. have substantial work experience

### How to Apply

1. Schedule an appointment with an admission counselor for a preliminary transcript evaluation and academic advisement;
2. Complete an application for admission and return it with an application fee to the Graduate and Adult Programs Office;
3. Have official transcripts from all previously attended colleges sent to the Graduate and Adult Programs Office.

At the time of your admission interview or shortly thereafter, you will be notified of the admission decision. If admitted, you will be sent information about registration procedures. Upon your acceptance, transfer credits from other colleges will be evaluated by the registrar's office and the results mailed to you before the end of your first term.

## Provisional Admission

If you are unable to obtain an *official transcript* prior to the beginning of classes, you *may* be provisionally admitted for one term by submitting an unofficial transcript. You must also complete the admission procedures outlined above *prior to registration*. The official transcripts must be submitted prior to registering for a second term. Official transcripts must be submitted and you must be fully admitted to the program before financial aid may be awarded.

## Readmission of Former ADEP Students

If you were formerly enrolled as an ADEP student but have not attended four or more consecutive terms, you must apply for readmission by submitting an updated application form and meeting with an admission counselor. The curriculum requirements in effect at the time of your readmission will apply.

## Academic Policies (p. 39)

### Alternatives for Acquiring Credit

- College Level Examination Program (CLEP) (see Admission (p. 7))
- Credit by Examination (see Academic Programs (p. 31))
- Independent Study (see Academic Programs (p. 31))

## Course Load

Since most ADEP students are also employed, a normal course load is considered to be two courses per term (six to eight units). The number of units you take, however, is up to you as long as you don't exceed 10 units per term. For financial aid and veteran's benefits, half-time is considered to be four units and full-time is eight units.

## Concurrent Enrollment

If you are admitted as an ADEP student and wish to enroll in courses within the traditional CLU program or in another college or university, you must obtain approval from the Director of the Adult Degree Evening Program, the Registrar of the University, and the Director of Financial Aid prior to enrolling in the course(s). Normally, requests for concurrent enrollment at another institution will not be granted unless you demonstrate a compelling need to take the course at that location.

## Financial Information

### Tuition and Fees

Refer to [www.callutheran.edu/student\\_accounts/tuition/adept.php](http://www.callutheran.edu/student_accounts/tuition/adept.php) for current tuition and fees.

Tuition is due and payable on or before the first class meeting unless you have made alternative payment arrangements. Late payment fees are assessed on delinquent accounts. Students with delinquent accounts cannot register for the new term until fees for the prior term have been paid. All financial obligations must be met before academic records (diplomas, grade reports and transcripts) will be released. You may contact the Business Office or refer to WebAdvisor for information regarding your student account status.

### Student Status

Student enrollment status definition for ADEP:

- **Full-time** = eight units or more
- **Three-quarter time** = six to seven units
- **Half-time** = four to five units

ADEP students must be at least half-time (four units) to be eligible for federal loans. Limited financial aid may be available for less than half-time status.

## Financial Assistance

An adviser is available to help you apply for financial need and discuss various forms of financial assistance.

### Employer Tuition Assistance Programs

Many companies offer full or partial tuition assistance to employees who participate in work-related or degree-oriented college programs. California Lutheran University provides a deferred payment option for students who take advantage of their company's tuition reimbursement opportunities. Program details are available in the ADEP Office.

### ADEP Assistantships

ADEP assistantships provide free tuition in exchange for work in the ADEP department. Normally, no more than four free tuition credits will be granted during any one term. A minimum cumulative 2.5 GPA is required for eligibility and a student must be enrolled in courses during the term of the assistantship. Typically, the student would need to be available during daytime hours to be eligible for an assistantship. The ADEP Assistantship application is available under the "Forms" section of the Office of Financial Aid's website.

### ADEP Academic Scholarships

Six nonrenewable academic scholarships for up to \$2,000 may be awarded each year to new degree-candidate students in the Adult Degree Evening Program who have demonstrated outstanding academic achievement. Individuals interested in competing for ADEP scholarships must submit a two-page essay and have a minimum transfer GPA of 3.0 with at least 30 transfer credits. This competition is for first-time ADEP students only. Scholarship applications are available in the ADEP Office and on the financial aid website under grants and scholarships.

### ADEP Grant

Students registered for at least eight units per term and who demonstrate financial need may qualify for an ADEP Grant. Students must file a FAFSA (Free Application for Federal Student Aid) and an ADEP Financial Aid Application (found within the Office of Financial Aid's website under "Forms") to be considered. *Grants are awarded on a first-come first-served basis and there are a limited number available.*

### Cal Grant

A California Grant based on need and GPA is available to eligible ADEP students. A Free Application for Federal Student Aid (FAFSA) must be filed and a Cal Grant GPA Verification Form ([www.csac.ca.gov](http://www.csac.ca.gov)) must be submitted to the California Student Aid Commission by March 2.

### Federal Pell Grant Program

Under this federal grant program, award amounts are based on exceptional financial need. A Free Application for Federal Student Aid (FAFSA) must be filed for consideration.

### Congregational Partners in Education (CPE) Award

This renewable award allows congregations to assist outstanding students who have demonstrated a commitment to the life and work of their church. CLU will match gifts from the congregation in support of a full-time student (eight units per term) up to a maximum of \$1,000. Contact the Office of Financial Aid for more information.

## Federal Stafford Loan

Eligibility for a Federal Stafford Loan is determined by the FAFSA. The Federal Stafford loan program is divided into two types of loans – subsidized and unsubsidized. Both have fixed rates (please contact the Financial Aid Office for the most current interest rate information) and are available to students who are fully admitted to an eligible program of study and are enrolled at least half time per term.

The U. S. Department of Education pays the accrued interest on the need-based Subsidized Stafford loan only. The Unsubsidized Stafford loan accrues interest while the student is in school; a student can choose to pay or defer the interest until the repayment period begins.

An eligible, independent student may borrow up to the annual maximum of \$9,500 for freshmen, \$10,500 for sophomores and \$12,500 for juniors and seniors. The loan may be awarded as subsidized, unsubsidized or a combination of both.

Students must be enrolled at least half time per term (four or more units) to receive a Federal Stafford loan. A separate electronic application process is required in addition to accepting the loans in the Financial Aid Award, which is available online at [www.callutheran.edu/financialaid](http://www.callutheran.edu/financialaid) in the Loans & Counseling section.

## Alternative Loans

Private educational loans are also an option. The Financial Aid Office has information available online at [www.callutheran.edu/financialaid](http://www.callutheran.edu/financialaid) regarding alternative loan options. The interest rates for alternative loans are variable. Eligibility and availability are determined by the lender.

## Veteran's Benefits

Students who may be eligible for veteran's benefits should contact the Veterans Affairs office and the Registrar's Office at CLU for specific information. Students must submit a copy of their VA Certificate of Eligibility and complete a Veteran's School Form with the Registrar's Office.

## How to Apply for Financial Aid:

1. Complete the following forms:
  - A. FAFSA (Free Application for Federal Student Aid) available online at [www.fafsa.gov](http://www.fafsa.gov) (<http://catalog.callutheran.edu/undergraduate/adultdegreeeveningprogramadep/http://www.fafsa.gov>)
  - B. ADEP Application for Student Financial Aid online at [www.callutheran.edu/financial\\_aid/forms/](http://www.callutheran.edu/financial_aid/forms/)
2. Turn in all completed financial aid forms and necessary supporting documentation to the Financial Aid Office by the deadlines indicated.
3. Accept the financial aid offered, in whole or part, by the reply date indicated on your award letter.
4. If borrowing loans, you will be required to complete the loan application (Master Promissory Note) and Entrance Counseling process if needed.

**You must be officially admitted to the University and registered for classes to receive financial aid.**

## Return of Funds Policies for Federal Aid

Students who receive federal aid<sup>1</sup> are subject to federal return of funds policies. If the payment period for which a student received funds (term) is not completed and the student withdraws from all courses, then the student is only eligible for a percentage of the aid equal to the percentage of the period completed. The following is an example of this concept:

*Krista enrolls in the fall term but drops out before the end of the term. She actually completes 35 percent of the term and, therefore, is only eligible for 35 percent of the aid awarded for that period (amount earned).*

If the aid earned is more than the amount that was actually disbursed to the student (credited to their account), then California Lutheran University will offer the student a post withdrawal disbursement according to certain conditions such as whether or not a valid Student Aid Report has been received, the status of the verification process, etc.

If the amount disbursed is more than the amount earned, then California Lutheran University must return the amount unearned to the U.S. Department of Education. The student will then be responsible for any balance owed to California Lutheran University caused by the return of funds.

For additional information, please contact the Office of Financial Aid at (805)493-3115.

- 1 Federal aid covered by the Return of Funds policies includes the Unsubsidized Stafford Loan, Subsidized Stafford Loan, and Pell Grant.

## Degree Requirements

### General Degree Requirements

The requirements for the degrees of Bachelor of Arts and Bachelor of Science are designed to provide you with a broad program of liberal arts study and an opportunity to concentrate in the field of special interest. It is intended that at the undergraduate level the emphasis be placed on acquiring a broad education in many subjects, leaving highly specialized and professional studies to the graduate school level.

ADEP advisors will assist you in preparing an individualized degree plan; nevertheless, you are ultimately responsible for seeing that your academic program includes all requirements for graduation.

1. Students must complete 124 semester credits. At least 40 of these must be upper division, that is, junior or senior level courses (courses numbered 300-499).
2. 30 of the final 40 credits must be completed in residence. This requirement cannot be met using credit by examination, CLEP or community college.
3. Students must earn at least a 2.0 grade point average for all CLU work and also achieve a 2.0 on all combined CLU and other college work.

### General Education Requirements

You may have transferred some or all of the required general education courses from previous course work. However, if you still need any of the courses, you will find them as part of the Adult Degree Evening Program curriculum. General education includes:

#### 1. Proficiencies

##### A. **Written Communication:**

- i ENGL 111 – Freshman English with a grade of C or better
- ii One upper division writing intensive course

##### B. **One speaking intensive course**

##### C. **Mathematical Reasoning:**

One course (beyond intermediate algebra) or satisfactory score on the designated exam. Depending on the student's score on the math placement test, the student may be required to take MATH 110 Intermediate Algebra as a prerequisite for higher level courses.

#### 2. Perspectives

##### A. **Humanities:**

One religion course and three additional courses selected from religion, literature, philosophy, history or humanities.

##### B. **Social Sciences:**

Two courses in different disciplines selected from specifically approved cultural anthropology, criminal justice, economics, cultural geography, political science, psychology, and sociology courses.

##### C. **Natural Sciences:**

One course with a lab component: physical anthropology, astronomy, biology, chemistry, physical geography, geology, physics. Senior transfers (90 or more credits) who have completed two science courses without laboratory components will have met the natural sciences requirement.

##### D. **Visual and Performing Arts:**

One course, at least two credits.

#### 3. Cultures and Civilizations \*

- ##### A. **U.S. Diversity** – one course

#### 4. Integrated Studies \*

- ##### A. **Integrated Studies Capstone** – one course (This course is part of the requirements for your major and may also be used to complete a perspectives requirement.)

\* The courses marked with an asterisk are not additional credit or course requirements. They are content requirements which may be met through a selection of courses which also meet major, elective, or other core requirements.

## Pass/No Credit

No general education requirements or any portion of the major (including supporting courses) may be satisfied by courses graded P/NC, except for specifically designated courses.

NOTE: Students transferring from California community colleges who, prior to transfer to CLU, have fully satisfied the Intersegmental General Education Transfer Curriculum (IGETC) need only complete the religion and oral communication requirements to meet the ADEP general education requirements. Students who do not complete the IGETC will follow the CLU general education requirements as stated above.

## Major Requirements

All students must complete an academic major as part of the requirements for the baccalaureate degree. Requirements for an academic major are as follows:

1. Completion of at least 32 credits in an area of concentration for the Bachelor of Arts or at least 36 credits for the Bachelor of Science.
2. Three upper division courses for the major, including the capstone, must be completed in residence at CLU.
3. A minimum grade point average of 2.0 is required in the major. Required support courses are not included in the major GPA.
4. At least 75 percent of the required courses for a major must be unduplicated with any other major or minor.

## Minor Requirements

Minors consist of a coherent set of related courses in a particular disciplinary or interdisciplinary area. An academic minor is not required for a degree; however, if a student elects to earn a minor, he or she

1. must complete the specified 15-20 credits within the minor desired;
2. may not major and minor in the same department;
3. must complete at least eight to 12 credits in upper division courses and at least two of those courses must be completed in residence at CLU;
4. must achieve a minimum GPA of 2.0;
5. may not count internships toward the minor unless specifically required by the minor;
6. may use only one independent study course to meet minor requirements;
7. at least 75 percent of the required courses for a minor must be unduplicated with any other major or minor.

# Courses of Instruction

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## Contents

- Accounting
- American Studies<sup>2</sup>
- Art<sup>1</sup>
- Asian Studies<sup>2</sup>
- Biochemistry and Molecular Biology
- Bioengineering<sup>1</sup>
- Biology<sup>1</sup>
- Business Administration<sup>1</sup>
- Chinese<sup>3</sup>
- Chemistry<sup>1</sup>
- Communication<sup>1</sup>
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- Computer Science<sup>1</sup>
- Criminal Justice
- Economics<sup>1</sup>
- Education<sup>3</sup>
- English<sup>1</sup>
- Environmental Science
- Environmental Studies<sup>2</sup>
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- History<sup>1</sup>
- Honors<sup>3</sup>
- Interdisciplinary
- International Business<sup>2</sup>
- Languages and Cultures<sup>3</sup>
- Learning Resources<sup>3</sup>
- Legal Studies<sup>2</sup>
- Liberal Studies (Education)
- Marketing Communication
- Mathematics<sup>1</sup>
- Multimedia<sup>1</sup>

- Music<sup>1</sup>
- Music Production
- Philosophy<sup>1</sup>
- Physics<sup>1</sup>
- Political Science<sup>1</sup>
- Psychology<sup>1</sup>
- Religion<sup>1</sup>
- Science (Applied Scientific Computing)<sup>2</sup>
- Sociology<sup>1</sup>
- Spanish<sup>1</sup>
- Theatre Arts<sup>1</sup>
- Theology and Christian Leadership
- Women's Studies<sup>2</sup>

1 Minor also offered

2 Minor only offered

3 Non Major/Minor

## System of Course Descriptions

Courses of study and their descriptions are arranged according to course numbers within their departments.

The following classification system identifies a course as freshman, sophomore, junior or senior level. Freshman and sophomore courses are in the lower division; junior and senior courses are in the upper division.

The course value in semester credits is indicated within parentheses after the course title.

## Course Numbering System

- **Courses numbered 01-99**  
designate preparation courses not applicable to degree credit.
- **Courses numbered 100-199**  
are usually taken by freshman students.
- **Courses numbered 200-299**  
are usually taken by sophomores.
- **Courses numbered 300-499**  
are upper division courses normally taken by juniors and seniors. A freshman or sophomore may take upper division courses with consent of the instructor.
- **Courses numbered 500-599**  
are graduate level courses.
- **Courses numbered 600-799**  
are doctoral level courses.
- **Courses numbered 800-899**  
are professional development
- **Courses numbered 900-999**  
are Continuing Education Units (CEU).
- **Teaching Credential:** Contact the School of Education or the appropriate department adviser for a complete list of courses needed to fulfill subject matter requirements for a Multiple Subject or Single Subject Credential.

# Accounting

California Lutheran University's bachelor of science program in accounting offers excellent preparation for a career as a Certified Public Accountant (CPA), a Certified Management Accountant (CMA) or for an accounting career in private, nonprofit or governmental organizations. The program combines general education studies, a selection of business-related courses and intensive work in all aspects of accounting.

Accounting majors take courses that focus on financial accounting, managerial/cost accounting, tax audit, banking, capital markets and quantitative analysis.

The Accounting Association, a student club, offers opportunities for students to become knowledgeable about the accounting profession and to prepare for entry into an accounting career. Frequent meetings are used to introduce students to professional exam preparation, recruiters in the area, advice from accounting professionals and to develop camaraderie and friendships among this highly motivated group of students.

Accounting majors have entered careers as accountants, budget officers, controllers, consultants, financial analysts and planners, and tax attorneys. CLU accounting graduates have been successful in passing the CPA examinations and in accepting positions with the largest firms.

See Business Administration for course descriptions and faculty listing.

## Bachelor of Science in Accounting

79 credits minimum, 62 credits upper division.

BUS 251	Principles of Accounting	4
BUS 252	Managerial Accounting	4
Select one of the following:		5-6
ECON 203/203L	General Economics and General Economics Lab	
ECON 200/201	Introduction to Micro-Economics and Introduction to MacRo-Economics	
MATH 245	Applied Calculus	4
BUS 257	Practicum in Accounting	2
BUS 352A	Intermediate Accounting	4
BUS 352B	Intermediate Accounting II	4
BUS 367	Behavior in Organizations	4
BUS 374	Business Law	4
BUS 375	Principles of Marketing	4
BUS 391	Principles of Finance	4
BUS 451	Cost Accounting - Computer Application	4
BUS 452	Tax I	4
BUS 453	Auditing	4
BUS 454	Advanced Accounting	4
BUS 462	Tax II	4
BUS 301	Communication for Managers	4
or COMM 306	Business and Professional Communication	
ECON 311	Statistical Methods	4
BUS 484	Senior Seminar in Accounting - Capstone	4
Select one of the following:		4
PHIL 300	Ethics	
PHIL 315	Social Ethics	
PHIL 350	Technology and Value	
REL 350	Contemporary Christian Ethics	
REL/BUS 354	Theology and Business Ethics	
Upper Division Elective Credits		2
Total Hours		81-82

## Courses

### Lower Division

#### **BUS 151. Introduction to Business. (4).**

Students will have instruction in various business and economic topics (Marketing, Management, Finance, Personal Financial Planning, Economics, etc.) to better prepare them for making informed choices in selecting their ultimate degree and emphasis areas of study. Students will benefit from an introduction to advising and academic guidance. They will have an opportunity to meet with and be instructed by various faculty members from the school of business on a "guest professor" basis. Students in this course will participate in benchmarking exercises to contribute to outcomes assessment reports. Prerequisite to BUS 251 - Principles of Accounting.

#### **BUS 251. Principles of Accounting. (4).**

An introduction to the basic assumptions that underlie modern accounting: the principles, procedures and methods applied in the preparation of financial statements. Prerequisite: MATH 115 or equivalent and BUS 151.

#### **BUS 252. Managerial Accounting. (4).**

An examination of how accounting data is used, communicated and interpreted for internal use. Emphasis is placed on planning, control and decision making, particularly in a manufacturing setting. This course will include instruction in and application of computer spreadsheet programs. The student will be required to use word-processing and spreadsheet programs for work submitted during this course. In addition, an introduction to and use of Internet research resources are included in the course syllabus. Prerequisite: BUS 251.

#### **BUS 253. Financial Information in Business Organization. (4).**

This course is designed for non-business majors who are not required to take Principles of Accounting or Managerial Accounting. The intent of the course is to provide students with sufficient background in accounting and finance to allow them to function more effectively in their chosen careers. To that end, the course will cover the basics of financial accounting and managerial accounting, with some additional material typically covered in finance and economics courses.

#### **BUS 255. Environment of Business. (4).**

This course provides an introduction to and an overview of topics and disciplines addressed and taught in a typical Schools of Management curriculum. The topics are important background for the non-business major. It is an introductory-level treatment of course topics required in business emphasis areas: Accounting, Finance, Marketing, Management, Economics, and others. Career Services on campus are the basis for assignments with a focus on career readiness. Spreadsheet software is taught and used for completing assignments for the course. Importantly, expectations and standards for further coursework will be communicated so students are better able to set goals for success in their academic pursuits and chosen career.

#### **BUS 257. Practicum in Accounting. (2).**

Basic principles of accounting will be presented as a review for a solid foundation in GAAP and accounting. The course will include theory, as well as the completion of hands on financial statements using Excel and other software.

#### **BUS 275. Intro to Advertising. (3).**

An exploration of advertising from the management-marketing, consumer and communications creativity viewpoint. Focus is on general principles and broad perspectives with particular emphasis on strategy and how advertising fits into the total sales program.

#### **BUS 282. Selected Topics. (1-4).**

### Upper Division

#### **BUS 301. Communication for Managers. (4).**

The study of business communications methods with emphasis on planning, organizing, preparing and presenting major reports. Significant use of computer skills will be included, as well as design and structure of communication materials for the highest levels of impact.

#### **BUS 310. Managerial Use of Information Systems. (4).**

This course investigates the nature and uses of various types of information systems in business organizations, including decision support systems, expert systems, executive and management information systems, and communication systems. Examines the relationships between information system use and business strategy and the applications of information systems in the development of competitive advantage. (ADEP only).

#### **BUS 321. Computer Organizations and Architecture. (4).**

Principles of computer organization and architecture are introduced from a layered point of view, beginning at data representation and progressing through the machine language execution cycle. Representative hardware-software tradeoffs in the implementation of various computer system components will be presented. The design and interface to a variety of peripheral devices will also be discussed. The emphasis will be on the hardware aspects of a computer system.

**BUS 342. Marketing Research/Consumer Behavior. (4).**

A detailed focus on marketing research, strategy, statistical techniques and decision-theory concepts. Includes the nature of the influences affecting consumer behaviors, values, lifestyles, market segmentation, motivation and attitudes that form consumer marketing decisions. Prerequisite: junior standing.

**BUS 344. Copywriting/Storyboarding in Broadcast Advertising. (4).**

Designed as a "hands-on" communication and business course, this course provides an overview of broadcast media and develops skills in basic advertising/public relations campaign production techniques including scripting, copywriting and storyboarding. (cross-listed with COMM 344).

**BUS 350. Data Communication and Networks. (4).**

Includes a discussion of distributed data processing, communication techniques, wide-area and local-area networks, integrated services digital network, open-systems interconnections, security and network management.

**BUS 352A. Intermediate Accounting. (4).**

Includes detailed coverage of accounting theory and practice as applied to the corporate form of business. Topics include income statement, earnings per share, income tax allocation, compound interest, revenue recognition, price-level accounting, an introduction to fund accounting and a thorough treatment of balance sheet accounts. Prerequisites: BUS 251 (for BUS 352A), BUS 352A (for BUS 352B).

**BUS 352B. Intermediate Accounting II. (4).**

Includes detailed coverage of accounting theory and practice as applied to the corporate form of business. Topics include income statement, earnings per share, income tax allocation, compound interest, revenue recognition, price-level accounting, an introduction to fund accounting and a thorough treatment of balance sheet accounts. Prerequisites: BUS 251 (for BUS 352A), BUS 352A (for BUS 352B).

**BUS 354. Theology and Business Ethics. (4).**

This course applies ethical theory to business decisions within the context of theological reflection. With a strategic focus, the course will investigate the relationship between theological ethics and the economic concerns of managers. The course is particularly designed to help students become effective ethical agents by developing the skills to apply ethical principle to strategic business decisions. (cross-listed with REL 354).

**BUS 355. Client/Server Fundamentals. (4).**

Discusses modern technology in network communication and cooperative computation. Topics include client/server design concepts, software expectations, hardware requirements, service support and training issues. Prerequisite: CSC 220 or CSC 300.

**BUS 361. Human Resource Management. (4).**

A study of the use of the human resources within the organization. Includes recruiting, selecting and training employees, wage administration and union relations. Focus is on government regulation of employment practices, including Equal Opportunity Employment and affirmative action.

**BUS 365. Organization Theory. (4).**

Analysis and design of modern organizations with an emphasis on organizational technology. Perspectives include organization design, organization effectiveness and changing organization culture, and the organization and its external environment. Attention is given to emerging global realities. Integrates theoretical knowledge with practical applications.

**BUS 367. Behavior in Organizations. (4).**

An introduction to the methods and findings of the behavioral sciences on the persisting human problems of organizations. Attention is given to the roles of individual attributes, group dynamics and organizational structure in determining levels of performance at work. Prerequisite: junior standing.

**BUS 370. Multimedia Technology. (4).**

Introduces modern multimedia technologies. Topics include basic concepts, principles, sound images, animation, standards, hardware and software requirements, new technologies, current research and practice, and future directions.

**BUS 374. Business Law. (4).**

The study of law as it relates to business. Topics include contracts, agencies, commercial paper, personal property, sales, real property and insurance.

**BUS 375. Principles of Marketing. (4).**

The study of marketing methods and practices. Topics include policies and problems related to consumers, pricing, advertising, management information systems and distribution and management of the marketing function. (cross-listed with COMM 375).

**BUS 376. Sales Management. (4).**

This course concerns the sales and sales management functions as they exist in business-to-business sales settings. The course discusses current problems in sales management and the design of effective sales management processes and systems. Prerequisite: BUS 375.

**BUS 380. Principles of Advertising. (4).**

An exploration of advertising from an integrated marketing communications perspective. Focus is on general principles and broad perspectives with particular emphasis on strategy and the role of advertising in an integrated program. Students will examine consumer motivation, planning and development, the creative process and campaign execution and evaluation. (cross-listed with COMM 380).

**BUS 381. Information, Systems, and Organizational Design. (4).**

Surveys the major components of business information systems (hardware, networks, data and applications) and investigates the interrelationships between information, systems, organizational structure, processes and strategy.

**BUS 391. Principles of Finance. (4).**

Introduces students to the field of finance through an applied conceptual framework using problem sets and computer software to analyze various financial dilemmas. Topics include security valuation, risk analysis, working capital management, financial budgeting and planning, time value of money concepts, financial ratio analysis and capital budgeting. Prerequisite: BUS 252.

**BUS 392. Intermediate Finance. (4).**

Students learn to appreciate the usefulness and limitations of financial statements in valuation concepts and financial analysis and are made aware of the value of the role of financial information in capital markets. Concepts are reinforced through problem sets. Prerequisite: BUS 391.

**BUS 393. Corporate Finance. (4).**

Provides a conceptual framework for analyzing the major types of investment and financial decisions of corporations. The course reviews modern financial theory related to capital structure, cost of capital, dividend policy, intermediate and long-term financing, corporate restructuring and capital budgeting. Employs a mix of problem sets and cases. Prerequisite: BUS 391.

**BUS 394. International Business. (4).**

Covers international trade and its effect on the world economy. Includes the problems of the multinational firm and the impact of numerous environmental factors on the conduct of business across national boundaries.

**BUS 395. Financial Strategy. (4).**

Deals with corporate financial strategies primarily in the areas of valuation, capital structure, external financing, bankruptcy, mergers and acquisitions. These issues are addressed mostly in the context of case studies that illustrate how ideas studied in introductory finance courses are applied to real-world situations. Prerequisite: BUS 391.

**BUS 400. Graphical User Interface. (4).**

An introductory course to user interface fundamentals. Topics include development methodologies, evaluation techniques, user-interface building tools, considerations in the design phase, identification of design rules and successful delivery of the design. Prerequisite: CSC 220 or CSC 300.

**BUS 410. Database Management Systems. (4).**

Studies the concepts and structures necessary to design and operate a database management system. Topics include data modeling, relational database design and database querying.

**BUS 411. Sports-Related Marketing. (4).**

An introduction to management and marketing issues in the sports industry, with a particular emphasis on major and minor league professional sports. Students will receive a broad overview of the structure of sports and its relationship to the dominant culture, the economy and the media. (cross-listed with COMM 411).

**BUS 418. Business in China and India. (4).**

Students investigate China and India in terms of the macro forces and factors that comprise the business environment in these "big emerging markets." Students work to understand the demographic, economic, socio-cultural, political-legal, technological and natural forces that influence business in China and India. They compare and contrast how business is conducted within the two countries as well as with foreign enterprises, and they assess current and emerging opportunities for business in the region. Through readings, online research, discussions, and case analyses, students learn what appear to be critical factors for business success in China and India.

**BUS 420. White-Collar Crime. (4).**

This course will provide students with a critical examination of white-collar crime and deviance, its impact on society, and what might be done to address this social problem. Cross-listed with CRIM 420.

**BUS 429. Executive Roundtable. (4).**

This course is designed to provide students with an appreciation of how management and finance theory are integrated into the strategies of the modern cooperation.

**BUS 430. Integrated Marketing Communication. (4).**

This course explores the role of communications in marketing management, the strategic integration of promotional tools, and the application of generic IMC concepts in various social and organizational contexts-commercial, non-profit, domestic, and international. Communication trends and technologies are illuminated. The impact of marketing communications on individuals and on society as a whole is critically evaluated. Through readings, discussions, and analyzing cases, students learn how communications objectives are accomplished through carefully chosen combinations of public relations, advertising, sales promotion, personal selling, database and online marketing. Prerequisite: BUS 375 / COMM 375 Principles of Marketing.

**BUS 439. Senior Seminar in Management Thought and Practice. (4).**

The consideration of classic and contemporary writings on issues related to the management of the business enterprise and the role of business in the larger society. Prerequisite: senior standing.

**BUS 440. Marketing Simulations. (4).**

Emphasis is placed on the marketing planning function, consumer identification and buyer behavior, marketing strategies and price-value relationships.

**BUS 442. Advertising Campaigns. (4).**

Advances the principles learned in introductory advertising and marketing courses and includes the application of principles learned through the completion of an actual consumer-oriented marketing/advertising campaign. Includes lecture and lab. Prerequisites: BUS 375, senior standing. (cross-listed with COMM 442).

**BUS 443. Event Planning and Management. (4).**

The study of the theory and practice of various forms of event planning and management. The class will be using a hands-on approach to delve into this wonderful field and will include lessons on budget, décor, entertainment, types, and security issues. (cross-listed with COMM 443).

**BUS 445. Marketing and Management of Services. (4).**

Addresses marketing and management issues related to the service component of products, particularly products which are service-intensive. Topics include understanding the distinctive aspects of services, creating and delivering services, developing and managing the customer service function, balancing demand and supply in a service environment and others.

**BUS 446. Theories and Practice of Leadership. (4).**

Examines leadership from theoretical, historical and practical perspectives. Includes topics of trait, behavioral and contingency theories; the influence process; management vs. leadership, leadership and followership. Survey of leadership theory and research; characteristics of leaders, theories of leadership origins and psychological and social correlates. Interaction of personal and organizational factors in determining leadership effectiveness. (ADEP only).

**BUS 447. Social Marketing. (4).**

Reflecting the needs of social entrepreneurs, NGOs and nonprofit organizations, the course explores the use of marketing to effect behavioral changes for the benefit of individuals, society and the global environment. Social marketing is viewed in various organizational and cultural contexts, both domestic and international. Trends and technologies are critically evaluated. Through reading, discussion and practical application, students learn how social marketing objectives are accomplished through carefully chosen combinations of research, planning, implementation and program evaluation. Prerequisite: BUS 375 / COMM 375.

**BUS 448. Organization Development. (4).**

The study of planned change in organizations including diagnosis of the organization and implementation of organization development interventions. Emphasis on teamwork in organizations and survey development. Prerequisite: senior standing.

**BUS 449. Managerial Leadership: Core Competencies And Skills. (4).**

Focuses on the development of the core competencies and skills needed for effective managerial leadership at all levels of the organization. Each skill component will follow a five-step developmental pedagogy: (1) Assessment, (2) Learning, (3) Analysis, (4) Practice and (5) Application. Prerequisite: senior standing.

**BUS 450. Advanced Public Relations. (4).**

Students strengthen their command of the processes and techniques of public relations and apply them strategically to real-world PR stations. They apply the full process of public relations management, including research and analysis, planning, implementation, and control and evaluation, while producing a strategic PR plan and professional media kit. They role-play crisis communications planning and response in an emergency PR exercise. Ethical considerations in PR management are examined; the impact of current PR practices on individuals and society are critically evaluated. Prerequisite: COMM 342. (cross-listed with COMM 450).

**BUS 451. Cost Accounting - Computer Application. (4).**

Advanced study of the procedures used to determine costs for manufacturing operations. Includes process and differential costing, overhead allocation, profit-volume analysis, joint products and by-products and responsibility accounting. Emphasis is placed on making informed business decisions based on quantifiable data. Prerequisites: BUS 252; junior standing.

**BUS 452. Tax I. (4).**

A study of current federal tax laws and issues as they pertain to the individual taxpayer. Cases are used to provide practical experience in implementation of tax law interpretations; emphasis is placed on the evolution of the philosophy that drives development of the federal tax code. Prerequisite: BUS 251. (offered one semester each year).

**BUS 453. Auditing. (4).**

Covers the legal responsibilities, theory and procedures in the conduct of an audit and the making of an audit report. Prerequisite: BUS 352B. (offered one semester each year).

**BUS 454. Advanced Accounting. (4).**

Accounting for business combinations and the preparation of consolidated financial statements. Also includes accounting for partnerships, consignments, foreign currency translation, fund accounting and international accounting. Prerequisite: BUS 352B. (offered one semester each year).

**BUS 461. Advanced Human Resource Management. (4).**

Studies advanced human resource management problems and practices and is intended for students interested in a professional career as a human resource management specialist. Topics include selection, placement, employee development and employee relations in private and public sector organizations. Prerequisite: BUS 361.

**BUS 462. Tax II. (4).**

A study of tax laws and issues pertaining to business entities such as partnerships, C-corporations and S-corporations. Focuses on the taxation of estates and trusts and expands the study of personal taxation introduced in Tax I. Prerequisite: BUS 452. (offered one semester each year).

**BUS 463. Exporting/Importing. (4).**

Provides a pragmatic overview of the different aspects of importing/exporting and a working knowledge of the various terms and techniques essential to establish and maintain a profitable import/export business in America. Discussions and assignments will include the marketing organization, regulation, terms of access, documentation, shipments and financing involved with the international movement of products.

**BUS 468. Venture Development. (4).**

A study of venture development through entrepreneurship. Designed to help the student discover the opportunities and challenges of operating a business enterprise. The student will apply concepts learned in other business courses to the business operation. Recommended: BUS 391.

**BUS 469. Strategic Management (capstone). (4).**

Complex business cases integrating the fields of marketing, finance, law, accounting, economics and industrial management provide a realistic view of how general managers deal with conceptual business problems. Cases include analysis of strategic, interpersonal business problems. Prerequisite: senior standing; prerequisite/corequisite: BUS 391.

**BUS 472. International Finance. (4).**

Focuses on the financial environment surrounding multinational businesses involved in international trade, investment and financing. Covers management of current assets and liabilities, including foreign financing decisions and techniques, and investigates foreign investment decisions, feasibility analysis and capital budgeting. The course uses problem sets and case studies to reinforce the concepts discussed in class. Prerequisite: BUS 391. Recommended: senior standing.

**BUS 473. Marketing Management. (4).**

Focuses on the effective design and management of the marketing function in a business organization and the development of effective marketing programs. Topics include strategic marketing plans organization and incentive structures for the sales force, product launch, marketing communication and integration with other essential management functions. Prerequisites: BUS 375, senior standing.

**BUS 474. International Marketing. (4).**

An exploration of international marketing conditions with emphasis on foreign market research; trade promotion; political, legal, economic and cultural environments; product and service adaptability; and the development of strategic marketing plans for multinational competition. Prerequisite: BUS 375.

**BUS 475. Investment Analysis and Portfolio Development. (4).**

Provides the necessary background to critically evaluate both the practical and academic literature on investments. Stocks and bonds are addressed in market equilibrium and within the context of portfolio development. The capital asset pricing model, market efficiency and the investment environment are covered. Prerequisite: BUS 391.

**BUS 476. International Business Behavior. (4).**

A review of current organizational development approaches developed in the United States for possible international application. Cultural influences fostering or hindering the development of effective humanistic organizations are explored. Prerequisite: BUS 394 or consent of instructor.

**BUS 477. Personal Financial Planning. (4).**

An in-depth study of personal budgeting and long-term planning, investment opportunities, credit, financial institutions, insurance, risk preferences and goals. Prerequisite: junior standing.

**BUS 478. Pacific Rim/Art of Japanese Management. (4).**

An examination of our international trading partners in the Pacific Rim with special attention to their history, culture and political, economic, business and management systems. Attention is given to an assessment of both American and Japanese approaches to management and slow-growth economies. (cross-listed with POLS 478).

**BUS 479. Advanced Strategic Management. (4).**

Applies the principles of business and industry analysis and strategy formulation to the coming economic battles between Japan, United States and Europe and among the major emerging international trading blocs. Prerequisite: BUS 469.

**BUS 482. Selected Topics. (1-4).****BUS 484. Senior Seminar in Accounting - Capstone. (4).**

The alternative capstone course for B.S. in accounting majors. Includes the history and evolution of the accounting profession with an investigation and critique of current theory. Prerequisite: BUS 454.

**BUS 485. Seminar. (2-4).****BUS 490. Independent Study. (1-4).****BUS 492. Internship. (1-4).****BUS 493. Field Studies. (2).**

## American Studies (minor)

### Minor in American Studies

20 credits minimum, 20 credits upper division.

ART 105	American Art	4
REL 334/HIST 335	Christianity in America	4
One of the following:		4
ENGL 325	American Literature I	
ENGL 326	American Literature II	
ENGL 350	Studies in African-American Literature	
ENGL/SPAN 361	Contemporary Chicano Literature	
ENGL 455	Major American Authors	
One of the following:		4
HIST 321	Colonial America	
HIST 324	Society and Culture in United States History	
HIST/HNRS 328	Cold War America	
HIST 341	United States Women's History	
POLS 324	American Political Thought	4
or POLS 401	American Constitutional Law	
Total Hours		20

## Art

The California Lutheran University art curriculum provides a foundation in the studio arts and art history which encourages students to develop their own vision as creative artists and voices for its history and contemporary critique. With an emphasis on individualized attention and creative motivation, faculty members combine a broad range of academic and art disciplines with real-world experiences, philosophies and attitudes.

Interested students have a chance to participate in CLU-sponsored travel to a variety of international locations. Each student is also given the option to take art and/or art history classes one or two semesters in a Study Abroad program in countries such as Italy or England. Likewise, CLU's diverse art collections give students access to a variety of art objects from various countries. These collections include the La Boyteaux Collection of New Guinea Art, the Lou Grubb Collection of American Indian Art and Paintings, the Rev. Patty Hundley Photographic Archive and a collection of Philippine Island ethnic artwork.

Art majors may opt for the standard art major curricula or designate their preference with a concentration in design. The design specialty requires an advanced computer graphics course. Sophisticated graphics programs utilizing up-to-date software are available to CLU students to increase their creative skills and prepare them for the professional work of design. In addition, other design courses are cross-listed with the Theatre Arts Department, and digital arts classes are available in the Multimedia Department.

The majority of students choosing the design emphasis move into careers associated with advertising agencies, computer graphics, freelance photography, design studios and book design. Students can also prepare for careers in the motion picture and television industries, theater and animation by creating work especially targeted for their desired goals.

Art history students find CLU a perfect area to explore museums and architectural works. Nearby are the J. Paul Getty Museum, the Norton Simon Museum, the Pacific-Asia Museum, the Los Angeles County Museum of Art, the Museum of Contemporary Art (L.A.), Walt Disney Concert Hall, the Armand Hammer Museum, the Santa Barbara Museum of Art and others.

Students interested in a fine arts studio practice are provided a foundation of techniques and interaction with various materials which involve traditional and contemporary studio methods. The ultimate goal is for students to develop their own individual style and body of work while having an awareness of related historical and contemporary art concepts.

All art major seniors are required to take a Capstone course which focuses on the practical and philosophical aspects of being an artist or working in a field related to the arts. This class is designed to assist students in "real world" participation in the arts following graduation. A working knowledge of archival matting/framing, writing an artist statement and preparing a portfolio are included. All of the steps to curate and install an art exhibition are covered, culminating in a collaboratively produced retrospective of the senior art majors' best work displayed in the Kwan Fong Gallery of Art and Culture.

The Art Department works with the School of Education to serve the needs of students planning careers in teaching. Credential programs, as well as opportunities to practice art instruction, are available. A multi-media major is also available.

Internships at museums, galleries, companies or organizations are encouraged and earn up to four credits.

## Bachelor of Arts in Art

42 credits minimum, 24 credits upper division.

ART 111	History of Art	4
or ART 112	History of Art	
ART 160	Drawing	3
ART 165	Life Drawing	3
ART 270	Beginning Painting	3
ART 280	Design	3
ART 320	Sculpture	3
ART 330	Printmaking	3
ART 350	Ceramics I	3
ART 380	Computer Graphics	3
ART 410	Modern Art	4
ART 418	Interdisciplinary Arts - Capstone	3
ART 472	Life Painting	3
Senior Exhibit		
Art Elective Credits (at least 2 Upper Division)		4
Total Hours		42

## Bachelor of Arts with Concentration in Design

44 credits minimum, 26 credits upper division.

ART 111	History of Art	4
or ART 112	History of Art	
ART 160	Drawing	3

ART 165	Life Drawing	3
ART 270	Beginning Painting	3
ART 280	Design	3
ART 320	Sculpture	3
ART 350	Ceramics I	3
ART 368	Stage Lighting and Scenic Design	4
ART 369	Theatrical Costume and Makeup Design	4
ART 380	Computer Graphics	3
ART 385	Graphic Design	3
ART 410	Modern Art	4
ART 418	Interdisciplinary Arts - Capstone	3
Senior Exhibit		
Art Elective Credits		1
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Total Hours		44

## Minor in Art

18 credits minimum, 9 credits upper division. Students interested in teaching art should refer to the Chair of the Art Department for information about the art subject matter program. (see Education (p. 151))

ART 111	History of Art	4
or ART 112	History of Art	
ART 160	Drawing	3
ART 280	Design	3
Upper Division Art Elective Credits		9
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Total Hours		19

## Courses

### Lower Division

**ART 105. American Art. (4).**

**ART 111/112. History of Art. (4,4).**

111: From prehistoric and ancient civilizations to the Renaissance. 112: From the Renaissance to contemporary.

**ART 120. Sculpture for Non-Art Majors. (1).**

Designed to take students through several quick, hands-on projects in which they learn about materials, processes and the related history of sculpture.

**ART 160. Drawing. (3).**

An introduction to the fundamentals of line, shape, form, value and pictorial space and their use in aesthetic expression and the communication of ideas.

**ART 165. Life Drawing. (3).**

A study of the presentation of the human form through graphic representations, with an emphasis on the structure, form and anatomy of the model.

Prerequisite: ART 160.

**ART 175. Introduction to Watercolor. (3).**

An introduction to watercolor, painting including value and color theory, and the place of watercolor in the art world.

**ART 235. Photography. (3).**

A fine arts approach to the use of the camera as a creative tool.

**ART 236. Digital Photography. (3).**

An introduction to digital photography. A fine arts approach to the use of the digital camera, including its potential for creating art, and methods for adjusting and enhancing images on the computer.

**ART 260. Intermediate Drawing. (3).**

Continuation of the exploration of dry media with an emphasis on 3-dimensional rendering, linear perspective and the portrait. Historical and contemporary masters of drawing will be reviewed. Student portfolio development is stressed.

**ART 270. Beginning Painting. (3).**

An introduction to various media and techniques of painting. Students experiment with visual elements and their use in the expression and communication of ideas, with emphasis on the creative approach.

**ART 275. Intermediate Watercolor. (3).**

Continuation of watercolor techniques and picture making principles with an emphasis on 3-dimensional rendering, linear and atmospheric perspective, and the portrait. Historical and contemporary masters of watercolor will be reviewed. Student portfolio development is stressed.

**ART 280. Design. (3).**

An introductory study in the visual elements and principles of design and unity of expression. Includes creative exploration in two- and three-dimensional composition.

**ART 282. Selected Topics. (3).****ART 285. Travel Seminar. (1-4).**

## Upper Division

**ART 320/321. Sculpture. (3,3).**

Students are introduced to three-dimensional concepts and design through hands-on experience with various materials, such as clay, plaster and stone, using a variety of tools and sculpturing techniques. Course includes study and critical analysis of major sculptors.

**ART 330/331. Printmaking. (3,3).**

An introduction to various methods of intaglio and relief processes in fine printmaking. Pictorial concern and technique are stressed. Prerequisite: ART 160 or consent of instructor.

**ART 341. Visual Arts in Education. (3).**

A study of the visual arts in education. Theories and philosophies of art and its objectives in the classroom with correlated studio activities and creative experiences that explore various media and appropriate techniques. Both elementary and secondary school curricula in art are included.

**ART 350. Ceramics I. (3).**

An introduction to ceramics that emphasizes development of technique in wheel throwing and includes basic clay and glaze technology and the application of glazes. Students progress at their own speed with specific instruction given toward their individual development.

**ART 351. Ceramics II. (3).**

Stress is placed on wheel throwing, including the making of varied forms: covered ware, sculpted and decorated pieces plus added slab and coil work. Students are allowed an individual creative approach to further their development in form and surface decoration. Includes advanced technology in higher firing clays and glazes. Prerequisite: ART 350 Ceramics I or equivalent experience and/or consent of instructor.

**ART 368. Stage Lighting and Scenic Design. (4).**

Presents problems in scenic design, painting, perspective and execution of models and working drawings. Also the study of theatre lighting as an art form with an emphasis on design concepts. The theories of light, color, instruments and control are interpreted in relation to performer and audience.

**ART 369. Theatrical Costume and Makeup Design. (4).**

A practical study of costumes for the stage. The course examines the history of clothing design, color theory, rendering techniques and design process from concept to execution. Students also explore the concepts of theatrical makeup and design through lecture and practice. (cross-listed with TA 369).

**ART 370/371. Intermediate Painting. (3,3).**

Introduces the creative use of color based on an understanding of visual structural elements. Prerequisite: ART 270.

**ART 380. Computer Graphics. (3).**

Continued studies in the field of design with emphasis on the visual impact of line, form, color and texture. Computer graphics are introduced with "hands-on" explorations using illustration, image digitizing, air brushing and masking techniques.

**ART 385. Graphic Design. (3).**

Layout/paste-up for the printed page, involving techniques and materials used to produce camera-ready art for magazine spreads, album/cassette/CD covers, pamphlets, books, business cards and letterheads.

**ART 410. Modern Art. (4).**

The study of art in relationship to contemporary living: its contribution to the environment, its influence and personalities, and its role in our democratic culture. Prerequisite: ART 112.

**ART 411. Early Christian Art. (4).**

Investigates the first thousand years of Christian art, which represent a transition between Greco-Roman, Jewish and Byzantine monuments. The origins of style and subjects and their transformation into Christian vehicles of great sophistication are treated from many viewpoints - theological, literary, liturgical, iconographic, perceptual and stylistic. Prerequisite: REL 100.

**ART 412. Christian Art in the Middle Ages. (4).**

Students survey the religious art of the Middle Ages - primarily Christian, but also some early Jewish and Islamic developments - identifying significant works of architecture, sculpture, and painting, while exploring Christian concepts and beliefs, liturgy and worship. Students consider art in relation to cultural needs, examining works in historical, religious social, economic, and political contexts. Students become familiar with visual forms, styles, narratives, and symbols of Christian art, as well as with broader, unifying themes shared by different cultures. The course content covers twelve centuries and geographically spans the Western edges of Europe to the Middle East. We also pay attention to instances of cultural exchange (the circulation of ideas, art forms, and artists through Europe and the Middle East). (cross-listed with REL 412).

**ART 414. Philosophy of Art. (4).**

The study of the aesthetic experience and the work of art. Includes various theories and their expression, function and criticism. (cross-listed with PHIL 414).

**ART 415. History of Ceramics. (4).**

A historical approach to the study of ceramics from ancient civilizations to the present, with emphasis on contemporary European and American works. Laboratory research included. Prerequisites: ART 111, ART 112.

**ART 416. Oceanic Art. (4).**

A historic and stylistic study of the art of the South Seas including Melanesia, Micronesia, Polynesia, Indonesia and the early tribal art of Australia. Prerequisite: ART 111 or consent of instructor.

**ART 417. Pre-Columbian Art. (4).**

A historic and stylistic study of the early art of Mexico, Central America and selected areas of South America. Includes a cultural examination of the objects produced by the Olmecs, Mayas, Toltecs, Mixtecs, Tarascans, Zapotecs, Aztecs and the Incas. Prerequisite: ART 111 or consent of instructor.

**ART 418. Interdisciplinary Arts - Capstone. (3).**

For all art major seniors, this course focuses on the practical, philosophical, and personal aspects of being an artist or working in a field related to the arts. Useful knowledge such as archival matting/framing, packing, mailing, and documenting artwork will be covered. Students will write an artist statement, crucial when applying for graduate school or accompanying your portfolio in job searches, grant and exhibit proposals, or publishing your work on-line, etc. Emphasis on pre-preparation for the senior art exhibit (scheduled spring semester) including gallery layout design, art announcement design, exhibit posters, mailing lists, etc. - special attention to gathering a strong portfolio of individual work, especially a body of artwork connected by theme, technique, subject, or concept.

**ART 420. Sculpture. (3).**

Advanced exploration of sculpture as reflected in the human figure, from basic skeletal structure to finished form. Use of plaster body casts and other sculptural techniques reinforce hands-on learning. Course includes study and critical analysis of major sculptors' work on the human form. Prerequisite: ART 321.

**ART 430. Printmaking. (3).**

Experimental techniques in fine printmaking with an introduction to color. Prerequisite: ART 331 or consent of instructor.

**ART 435. Advanced Photography. (3).**

Advanced techniques in photography as a creative medium and personal expression.

**ART 450. Ceramics III. (3).**

Further emphasis on individual development of the ceramist, including hands-on involvement in developing clay bodies and empirical glaze formulations and an introduction to kiln firing. Prerequisites: ART 351 - Ceramics II, or equivalent and consent of instructor. Recommended: ART 160 and/or ART 280.

**ART 472. Life Painting. (3).**

Painting from the figure in the environment, with emphasis on individual expression. Prerequisite: Consent of instructor.

**ART 480/481. Advanced Computer Graphics. (3,3).**

Includes illustration and advertisement design, sequential image-making and further exploration into computer graphics as a tool for creativity and finished product. Field studies examine client-studio relationships and directed studies of workshops and studios. Prerequisite: ART 380.

**ART 482. Sel Top:. (1-4).****ART 485. Travel Seminar. (1-4).****ART 490. Independent Study. (1-4).****ART 492. Internship. (1-4).**

## Asian Studies (minor)

### Minor in Asian Studies

20 credits minimum; 12 credits upper division

Choose 20 credits from the following: (must be from at least two distinct disciplines)		20
CHIN 201	Intermediate Chinese	
CHIN 202	Intermediate Chinese	
ENGL/PHIL 260	Topics in World Literature	
ENGL 355	Post-Colonial Studies in Literature	
HIST 380	History and Politics of Modern China	
HIST/POLS 384	History and Politics of the Modern Middle East	
HIST/POLS 386	History and Politics of South Asia	
HIST/POLS 388	History and Politics of East Asia	
PHIL 355	Chinese Philosophy and Culture	
REL 370	Global Religions	
REL 372	South Asian Religions	
REL 375	Islam	
REL 482	Selected Topics (Sikh Tradition)	
SOC 285	Travel Course: Exploring Japanese Society and Culture	
BUS 418	Business in China and India	
BUS/POLS 478	Pacific Rim/Art of Japanese Management	
<hr/> Total Hours		20

## Biochemistry and Molecular Biology

Biochemists and molecular biologists study the chemistry of life. This includes the study of protein structure and function, metabolism, and the mechanics of DNA, RNA and protein synthesis. The CLU program emphasizes genomics and bioinformatics as methods that teach students how to perform research. Like other CLU science majors, biochemistry and molecular biology students are encouraged to design and carry out their own experiments, and advanced students are encouraged to complete independent studies and internships. The University's state-of-the-art equipment and resources offer students access to the latest scientific information and techniques.

Preprofessional programs in medicine, dentistry, veterinary medicine, pharmacy and bioengineering can be pursued through the biochemistry program at CLU. The biochemistry curriculum prepares students for positions in industrial and governmental research laboratories.

Careers in biochemistry and molecular biology are available in government and private companies and include positions in a variety of research industries. The growing areas of genetics and biotechnology provide many career opportunities with companies such as Amgen and Baxter Biotech, both international biotechnology companies that are located near the University.

Likewise, many biochemistry majors from CLU are accepted into medical, dental, pharmaceutical and graduate schools throughout the United States.

## Bachelor of Arts in Biochemistry and Molecular Biology

38 credits minimum, 24 credits upper division.

BIOL 121	Intro to Cells and Organisms	3
or BIOL 122	Intro. to Genes and Development	
BIOL 124L	Introduction to Biological Experimentation II	2
BIOL 425	Biochemistry	3
BIOL 425L	Biochemistry Lab	1
BIOL 426/426L	Molecular Biology and Molecular Biology Lab	4
BIOL 427	Recombinant DNA Techniques	2
CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
CHEM 305/305L	Quantitative Analysis and Quantitative Analysis Lab	4
CHEM 331	Organic Chemistry	4
CHEM 332	Organic Chemistry II	4
CHEM 341	Organic Chemistry Lab	1
CHEM 342	Organic Chemistry II Lab	1
CHEM 485	Capstone Seminar	2
Total Hours		41

### Required Supporting Courses

MATH 251	Calculus I	4
MATH 252	Calculus II	4
Select one of the following:		8-10
PHYS 201/201L/202/202L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab and Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	
PHYS 211/211L/212/212L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab and Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab	
Total Hours		16-18

### Recommended

BIOL 331/331L	Genetics and Genetics Lab	4
BIOL 332	Macromolecular Structure	2
BIOL 361/361L	Microbiology and Microbiology Lab	4
BIOL 375/375L	Cell Biology and Cell Biology Lab	4
BIOL 428/428L	Virology and Virology Lab	4
CHEM 405/405L	Physical Chemistry and Physical Chemistry Lab	4
CHEM 406/406L	Physical Chemistry and Physical Chemistry Lab	4
CSC 210	Introduction to Computer Programming	4
Total Hours		30

## Bachelor of Science in Biochemistry and Molecular Biology

46 credits minimum, 30 credits upper division.

BIOL 121	Intro to Cells and Organisms	3
BIOL 122	Intro. to Genes and Development	3
BIOL 124L	Introduction to Biological Experimentation II	2
BIOL 425	Biochemistry	3
BIOL 425L	Biochemistry Lab	1
BIOL 426/426L	Molecular Biology and Molecular Biology Lab	4
BIOL 427	Recombinant DNA Techniques	2

CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
CHEM 305/305L	Quantitative Analysis and Quantitative Analysis Lab	4
CHEM 331	Organic Chemistry	4
CHEM 332	Organic Chemistry II	4
CHEM 341	Organic Chemistry Lab	1
CHEM 342	Organic Chemistry II Lab	1
CHEM 405	Physical Chemistry	4
CHEM 485	Capstone Seminar	2
Total Hours		48

## Required Supporting Courses

MATH 251	Calculus I	4
MATH 252	Calculus II	4
Select one of the following:		8-10
PHYS 201/201L/202/202L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab and Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	
PHYS 211/211L/212/212L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab and Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab	
Total Hours		16-18

## Recommended

Recommended Courses:

BIOL 331/331L	Genetics and Genetics Lab	4
BIOL 332	Macromolecular Structure	2
BIOL 361/361L	Microbiology and Microbiology Lab	4
BIOL 375/375L	Cell Biology and Cell Biology Lab	4
BIOL 428/428L	Virology and Virology Lab	4
CHEM 406/406L	Physical Chemistry and Physical Chemistry Lab	4
CSC 210	Introduction to Computer Programming	4
Total Hours		26

## Biology Courses

### Lower Division

#### BIOL 111. Principles of Biology. (4).

For non-majors or students not pursuing a preprofessional program related to biology. Includes general biological principles and a survey of the plant and animal organisms. Lecture, 3 hours/week; Laboratory, 2 1/2 hours/week.

#### BIOL 111L. Principles of Biology Lab. (0).

#### BIOL 115. Current Issues in Marine Biology. (3).

This course is designed for non-science majors and is an introduction to marine biology via current issues and problems facing our world's ocean environment. Topics include coastal population growth and associated pollution, fisheries, and fisheries management, plastics in the ocean, climate change and ocean acidification, mercury in seafood, beach erosion, alien species, marine biodiversity and coral reef ecology/decline. The course includes both lecture and laboratory experiences.

#### BIOL 118. The Oceans. (4).

For non-majors or students pursuing a minor in environmental studies. This general survey of geological and biological processes in the ocean has a strong environmental emphasis. Laboratory exercises and field trips illustrate and complement lecture material. Lecture, 3 hours/week; Laboratory, 2 1/2 hours/week. (cross-listed with GEOL 118).

**BIOL 118L. The Oceans Lab. (0).****BIOL 120. Introduction to Ecology and Populations. (3).**

This course is an introduction to the history of evolutionary thought and the mechanisms of evolution, including species formation and the use of phylogenetic information. Diversity of living organisms, from prokaryotes to advanced multicellular organisms, will be discussed with an emphasis on evolutionary relationships. The principles of population and community ecology will be treated. Ecosystems and the environmental impacts of human activities will also be discussed. No prerequisites. (offered fall semester).

**BIOL 121. Intro to Cells and Organisms. (3).**

This course introduces important areas of cell biology such as cell organization of both prokaryotic and eukaryotic cells, cellular membranes, and signaling mechanisms. Included will be discussion of bacteria, virus, fungi, and protists. Further studies will involve a broad comparative survey of animal physiology, including animal motility, respiratory and circulatory physiology, principles of immunology, neurobiology, endocrinology and reproduction. No prerequisites. Recommended: BIOL 120 (offered spring semester).

**BIOL 122. Intro. to Genes and Development. (3).**

This course introduces the mechanisms of heredity, the expression of genetic information and the means by which genes encode developmental programs. It will be seen that genetics and development are part of a continuous process and that the genetic mechanisms and developmental patterns of living organisms reveal a fundamental kinship of life on earth. Genetics as a tool for the study of biological problems will be introduced, as will some current topics in genomic research and biotechnology. Students willing to explore these topics in greater detail are referred to upper division courses in Genetics, Macromolecular Structure, Developmental Biology, Cell Biology and Molecular Biology. No prerequisites. Recommended: BIOL 120, BIOL 121. (offered fall semester).

**BIOL 123L. Introduction to Biological Experimentation I. (2).**

Biology 123 introduces students to the processes of investigative biology and communication. It is not designed to accompany any particular core lecture course. The course is designed to develop the skills students need to progress as young scientists: forming and testing hypotheses, scientific observation, interpreting results, experimentation, analysis and communication of scientific discovery (both oral and written). Laboratories cover some topics presented in some of the core lecture courses (BIOL 120, BIOL 121 and BIOL 122) and introduce a variety of techniques including field sampling, statistical analysis, classification of organisms and physiological measurement. The course emphasizes experimental design, data collection, statistical analysis, integration of results with information reported in the scientific literature and the effective communication of conclusions. Evaluation is based on short lab assignments and scientific papers. A laboratory manual must be purchased. There are no prerequisites. Enrollment is limited to 16 students in each section. (offered fall semester).

**BIOL 124L. Introduction to Biological Experimentation II. (2).**

Biol 124 continues to expose students to the processes of investigative biology and communication. It is not designed to accompany any particular core lecture course, but should be taken after BIOL 123L. Laboratories cover some topics presented in some of the lecture courses, BIOL 120, BIOL 121 and BIOL 122 and introduce a variety of subjects including virology, gene expression, gene sequence analysis, gene manipulation and bioinformatics. The course emphasizes experimental design, data collection, statistical analysis, the integration of results with information reported in the literature and the effective communication of conclusions. In line with the philosophy of our inquiry-based curriculum, Biol 124 culminates in an independent project module, where students design and conduct their own experiments, analyze data (statistically, where appropriate) and present their results in both written and oral communications. Evaluation is based on short lab assignments and scientific papers; students will plan an oral presentation of their independent project. A laboratory manual must be purchased. There are no prerequisites; enrollment is limited to 16 students in each section. (offered spring semester).

**BIOL 211. Genes and Genesis. (4).**

This course introduces the mechanisms of heredity, the expression of genetic information, and the genetic control of development, emphasizing human biology. A central theme of the course is that we owe our genesis, both as species and as individuals, to the remarkable, and fascinating, properties of genes. Lectures will emphasize the experimental basis for our knowledge of human genetics. Special attention will be focused on issues at the interface of genetics and society (e.g., human reprogenetics: stem cell research, cloning, gene therapy). Students will explore methods of modern genetics, including DNA analysis and bioinformatics, in laboratory exercises that are conducted in lecture class periods.

**BIOL 221. Human Anatomy. (4).**

Human Anatomy is the study of the structure of the human body, from the cellular level to the organismal level with an emphasis on organ systems. While the focus of the course is structure, function will be covered in order to reinforce the interrelationship of the structure and function. Microscopic and gross anatomy will be studied in the laboratory. Specimens studied in lab include microscopic slides, human bones, plastic models, clay models and anatomical specimens and isolated mammalian organs will be used for dissection. Lecture, 3hrs/week; Lab, 2.5 hours/week.

**BIOL 221L. Human Anatomy Lab. (0).**

**BIOL 222. Human Physiology. (4).**

Human Physiology is the study of mechanisms that underlie the functioning of the human body, from the molecular level to the organismal level with an emphasis on organ systems. Physiology is a biological science that is inherently interdisciplinary since it utilizes mathematics, physics, chemistry and biology. While the focus of the course is physiology, anatomy will be covered in order to reinforce the interrelationship of structure and function. In the laboratory, students will conduct experiments related to the topics covered in the lecture. In the lab, students conduct hands-on investigational activities many of which involve recording and analyzing data from human subjects. Some laboratory exercises involves interactive computer situations. Lecture, 3hrs/week; Lab, 2.5 hours/week. Prerequisites: Human Anatomy BIOL 221 or BIOL 121. High school or college chemistry highly recommended.

**BIOL 222L. Human Physiology Lab. (0).****BIOL 223. Human Anatomy. (4).**

Human Anatomy is the study of the structure of the human body, from the cellular level to the organismal level with an emphasis on organ systems. While the focus of the course is structure, function will be covered in order to reinforce the interrelationship of structure and function. Microscopic and gross anatomy will be studied in the laboratory. Specimens studied in lab include microscopic slides, human bones, plastic models, clay models, and anatomical images (e.g., micrographs, radiographic images, photos, medical illustrations). Mammalian specimens and isolated mammalian organs will be used for dissection. Lecture, 3 hrs/week; Lab, 2.5 hours/week. Prerequisites: none.

**BIOL 223L. Human Anatomy Lab. (0).****BIOL 282. Selected Topic. (1-4).****Upper Division****BIOL 304. Wildflowers of the Sierras. (3).**

A study of the flora of the eastern Sierra Nevada, including the classification and ecological relationships of the various species. The major plant families are studied as an aid to identification, and collection techniques are discussed. A field trip to the Sierras is included. (summers only).

**BIOL 305. Flora of Southern California. (3).**

A study of native and introduced plants of Southern California, relating structure and form to environment. Plant families will be studied as a means of identification. Considerable class time will be spent in the field, observing plant characteristics and learning identification and collection techniques. (summers only).

**BIOL 311. Ecology and Evolution. (4).**

An introduction to the multidisciplinary nature of ecology, evolution and their underlying processes. Emphasis is placed on the fundamentals of ecology, evolutionary effects on populations and ecosystems and the relationship between ecological and evolutionary processes. Lecture, 3 hours/week; Lab/ Discussion, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L.

**BIOL 311L. Ecology and Evolution Lab. (0).****BIOL 312. Darwin. (2).**

"Darwin" is a 2-unit seminar course that explores the life and science of Charles Darwin. Students read two biographical books; (1) Charles Darwin: Voyaging and (2) Charles Darwin: the Power of Place. Each biographical sketch is a reflection of Darwin's personal life and how it influenced his scientific discoveries. In addition, the course not only focuses on Darwin but also places his works into a historical context. Students learn about the history of science and about the many scientists who were working at the same time as Charles Darwin. Students discuss matters of biological interest and are required to write summaries of their readings. Prerequisite: BIOL 120, BIOL 124L, BIOL 311.

**BIOL 325. Environmental Ecology. (4).**

A study of ecology with emphasis on humans and the environment. Problems such as overpopulation, food production, water and air pollution, the energy crisis and toxic waste disposal are discussed; their possible solutions are considered along with the social, political and economic ramifications. Lecture, 3 hours/week; Laboratory, 2 1/2 hours/week. Prerequisite: BIOL 122, BIOL 124L or equivalent.

**BIOL 325L. Environmental Ecology Lab. (0).****BIOL 331. Genetics. (4).**

This course concerns the mechanisms by which genetic information is stored, decoded and transmitted. We will focus on the experimental basis upon which our understanding of the above mechanisms rests. Methods of genetic analysis that involve interpretation of abstract data will be emphasized, although molecular and bioinformatic approaches, including structural and functional genomics, will be treated. The use of genetic analysis as an incisive tool to dissect biological processes will be a central theme of the course. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 121, BIOL 123L.

**BIOL 331L. Genetics Lab. (0).**

**BIOL 332. Macromolecular Structure. (2).**

The elaborate interplay of a variety of macromolecules underlies the mechanisms that govern cell function. This advanced course deals with the structure-function relationships of these macromolecular machines. It is intended that students emerge from this course with a deep understanding of the principles that govern macromolecular structure and the functional consequences of these principles. This is a seminar class in which students must assume responsibility for their own learning. Students will come to class prepared to discuss the reading assignment for the week. Lectures will focus on teaching the methods that students will employ to construct a Web-based tutorial on a macromolecule, chosen with input from the professor. Prerequisites: BIOL 122.

**BIOL 341. Comparative Anatomy. (4).**

The comparative study of vertebrate anatomy within an evolutionary perspective; includes the evolution, development, structure and function of vertebrate systems. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L.

**BIOL 341L. Comparative Anatomy Lab. (0).****BIOL 342. Developmental Biology. (4).**

This advanced course concerns the mechanisms by which multicellular organisms are constructed. We will focus on the experimental evidence that supports our understanding of these mechanisms. After an introduction to the history of developmental biology, the processes of gametogenesis, fertilization, cleavage, gastrulation and organogenesis will be covered. The course will progress to a treatment of some of the mechanisms by which genes are differentially expressed during the embryogenesis of model organisms, including *Drosophila*, *Xenopus* and mouse. We will finish up with considerations of developmental mechanisms of evolutionary change. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L; CHEM 151, CHEM 152. Recommended: BIOL 331; CHEM 201 or CHEM 331.

**BIOL 342L. Developmental Biology Lab. (0).****BIOL 343. Invertebrate Zoology. (4).**

Studies the morphology, physiology, taxonomy and ecology of most invertebrate phyla. Field trips and laboratory observation of living animals are emphasized. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 120, BIOL 123L.

**BIOL 343L. Invertebrate Zoology Lab. (0).****BIOL 345. Marine Biology. (4).**

The study of marine life of the world, with special emphasis on tidepool and shallow water life of the West Coast. Includes identification, distribution, adaptations of marine forms and their interrelationship to each other. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: BIOL 120, BIOL 123L.

**BIOL 345L. Marine Biology Lab. (0).****BIOL 350. Introduction to Neuroscience. (4).**

Neuroscience is an interdisciplinary science that examines the fundamental principles that govern the action of neurons and nervous systems. The course covers the structure and function of the nervous system with an emphasis on the mammalian nervous system. There are four main topic areas: the cellular organization of the nervous system; neuronal signaling (the ionic mechanisms underlying electrical activity in the nerve cells and the physiology and biochemistry of synaptic transmission); transduction and coding of sensory information; the generation and coordination of motor output and behavior. Higher order functions such as memory, language, and behavior will be covered.

**BIOL 350L. Neuroscience Lab. (0).****BIOL 352. Oceanography. (4).**

An introduction to the multidisciplinary nature of oceanography, including the origin and geography of the ocean basins, physical and chemical properties of sea water, the shaping of coastlines, oceanic and atmospheric circulation patterns and ecological relationships of marine organisms and the ocean environment. Lecture, 3 hours/week; Laboratory, 2 1/2 hours/week. Prerequisite: BIOL 120, BIOL 123L.

**BIOL 352L. Oceanography Lab. (0).****BIOL 361. Microbiology. (4).**

Studies the morphology, physiology, taxonomy and ecology of micro-organisms and their role in infection and disease. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: BIOL 122, BIOL 124L or equivalent.

**BIOL 361L. Microbiology Lab. (0).**

**BIOL 375. Cell Biology. (4).**

The cellular nature of life is explored by studying prokaryotic and eukaryotic cells and their component parts at the structural and functional levels. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L; CHEM 151, CHEM 152. Recommended: BIOL 331; CHEM 201 or CHEM 331.

**BIOL 375L. Cell Biology Lab. (0).****BIOL 399. Junior Honors. (2).**

This class consists of mentored literature research, in which students work closely with a faculty member to develop an approach to address a particular question in biology. Each student will produce several drafts of a literature review/research proposal, which frames the questions being addressed by the proposed research and provides a strategy for an experimental approach(es) to address these questions. The research proposal will serve as the basis for subsequent Senior Honors courses (BIOL 498 and BIOL 499). A student's grade will be determined by quality of the final draft as determined by two faculty readers (the research mentor and one other). Prerequisites: Permission of instructor.

**BIOL 422. Bioinformatics-Analytical. (4).****BIOL 425. Biochemistry. (3).**

The study of the structure and function of proteins and the metabolism of biomolecules. The structure and function of proteins, lipids, carbohydrates, and vitamins is covered, as well as topics such as enzymology, membranes and transport, thermodynamics, carbohydrate and lipid metabolism, and the regulation of metabolic processes. Lecture, 3 hours/week. Prerequisite: CHEM 201 or CHEM 332 or consent of instructor (cross-listed with CHEM 425).

**BIOL 425L. Biochemistry Lab. (1).**

Selected biochemistry lab techniques, including protein purification, enzyme kinetics, chromatography and electrophoresis. Laboratory, 3 hours/week. Prerequisite: concurrent enrollment in BIOL 425 / CHEM 425. (cross-listed with CHEM 425L).

**BIOL 426. Molecular Biology. (4).**

The study of the structure, biosynthesis, and function of nucleic acids and proteins. Topics include chromatin structure, replication, transcription, translation, the genetic code, gene regulation, recombination, mutations, and genomics. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: BIOL 122.

**BIOL 426L. Molecular Biology Lab. (0).****BIOL 427. Recombinant DNA Techniques. (2).**

Includes the theory and practice of gene cloning, with emphasis on practical knowledge of standard techniques in genetic engineering. Techniques include DNA purification, construction of plasmid gene libraries and DNA sequencing. Lecture, 1 hour/week; Laboratory, 3 hours/week. Prerequisite: BIOL 331 or BIOL 426.

**BIOL 428. Virology. (4).**

The study of prokaryotic and eukaryotic viruses, including their phylogeny, structure, replication, gene expression, transmission, and virus-host interactions. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: BIOL 122, BIOL 331, or BIOL 426.

**BIOL 428L. Virology Lab. (0).****BIOL 434. Medical Microbiology. (2).**

The host-parasite relationship with emphasis on bacteria and viruses, including mechanisms involved in disease production as well as host defenses. Prerequisites: BIOL 121, BIOL 122, BIOL 123L, BIOL 124L.

**BIOL 452. California Plant Communities. (4).**

Students learn to recognize the characteristic plants of the various plant communities of Southern California. Problems resulting from habitat destruction, urbanization and loss of species are discussed. Laboratory includes collection and identification techniques and habitat comparisons. Lecture, 3 hours/week; Laboratory and fieldwork, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 123L.

**BIOL 452L. California Plant Communities Lab. (0).****BIOL 461. Vertebrate Physiology. (4).**

A study of fundamental physiological processes of vertebrate tissues organs and systems. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 121, BIOL 122, BIOL 123L; CHEM 151, CHEM 152. Recommended: CHEM 201 or CHEM 331.

**BIOL 461L. Vertebrate Physiology Lab. (0).**

**BIOL 463. Scientific Literature. (2).**

An introduction to scientific literature. In this two-unit seminar course, students read scientific papers and analyze the works of other scientists. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L, senior standing.

**BIOL 482. Selected Topics. (2).****BIOL 482L. Selected Topics Lab. (0).****BIOL 490. Independent Study. (1-4).****BIOL 492. Internship. (1-4).****BIOL 498. Senior Honors I - Capstone. (3).**

The class will consist of continuing faculty-mentored research through experimental or observational studies. Students are required to keep an accurate account of their experiments/studies and to meet with their research mentors on a regular basis. A grade will be determined by the student's research mentor, based on effort and quality of research. Prerequisite: BIOL 399.

**BIOL 499. Senior Honors II - Capstone. (3).**

This class consists of continuing faculty-mentored research through experimental or observational studies. Students are required to keep an accurate account of their experimentals/studies and to meet with their research mentors on a regular basis. A thesis, written in proper scientific format, is required. The thesis and a public presentation of the Honors research will be graded by the research mentor and one additional faculty member. Prerequisite: BIOL 399, BIOL 498.

## Chemistry Courses

### Lower Division

**CHEM 111. Chemistry and the Environment. (4).**

Explores the interface between chemistry and the world we live in, with particular emphasis on environmental issues such as pollution, energy depletion and global warming. The chemical principles required to understand these topics are introduced on an as-needed basis. This course is primarily intended for non-science majors and cannot be used for credit toward a chemistry degree. Lecture, 3 hours/week; Laboratory, 3 hours/week.

**CHEM 111L. Chemistry and the Environment Lab. (0).****CHEM 151. General Chemistry. (4).**

Covers the fundamental theories, principles and laws of chemistry, plus the properties of elements and compounds. Prerequisites: MATH 151: high school chemistry; Math Placement Exam section I score of 14 or better or completion of MATH 110; Corequisite: CHEM 151L.

**CHEM 151L. General Chemistry Lab. (1).**

Covers the laboratory techniques and apparatus of chemistry, plus the illustrations of quantitative relationships in chemistry. Includes a systematic course in theory and techniques of inorganic qualitative analysis. Corequisite: CHEM 151L: CHEM 151.

**CHEM 152. General Chemistry II. (4).**

Covers the fundamental theories, principles and laws of chemistry, plus the properties of elements and compounds. Prerequisites: CHEM 151: high school chemistry; Math Placement Exam section I score of 14 or better or completion of MATH 110; Corequisite: CHEM 152L.

**CHEM 152L. General Chemistry II Lab. (1).**

Covers the laboratory techniques and apparatus of chemistry, plus the illustrations of quantitative relationships in chemistry. Includes a systematic course in theory and techniques of inorganic qualitative analysis. Corequisite: CHEM 152.

**CHEM 201. Elementary Organic Chemistry. (4).**

An introduction to the study of the aliphatic and aromatic compounds of biochemical interest. Includes fundamentals of organic chemistry for students of biology, nursing, physical education and elementary education. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: CHEM 111 or CHEM 152.

**CHEM 201L. Elementary Organic Chemistry Lab. (0).**

## Upper Division

### **CHEM 301. Environmental Chemistry. (4).**

In this course, principles of chemistry will be applied to environmental problems including water, air and soil chemistry and toxicology. Lecture, 3 hours/week; Lab, 3 hours/week. Prerequisite: CHEM 201.

### **CHEM 301L. Environmental Chemistry Lab. (0).**

### **CHEM 305. Quantitative Analysis. (4).**

Covers the principles and techniques of gravimetric and volumetric analysis. Lecture, 3 hours/week; Laboratory, 3 hours/week.

### **CHEM 305L. Quantitative Analysis Lab. (0).**

### **CHEM 306. Chemical Instrumentation. (4).**

Covers the theories and application of instrumentation in chemistry. Lecture, 2 hours/week; Laboratory, 6 hours/week. Prerequisite: CHEM 305.

### **CHEM 306L. Chemical Instrumentation Lab. (0).**

### **CHEM 331. Organic Chemistry. (4).**

Covers the structure, nomenclature, reactions and synthesis of organic compounds, plus the theory and mechanism of organic reactions. Lecture, 4 hours/week.

### **CHEM 332. Organic Chemistry II. (4).**

Covers the structure, nomenclature, reactions and synthesis of organic compounds, plus the theory and mechanism of organic reactions. Lecture, 4 hours/week. Prerequisite CHEM 331.

### **CHEM 341. Organic Chemistry Lab. (1).**

Laboratory work in isolation, characterization and synthesis of organic compounds. Laboratory, 3 hours/week. Corequisite: CHEM 331.

### **CHEM 342. Organic Chemistry II Lab. (1).**

Laboratory work in isolation, characterization and synthesis of organic compounds. Laboratory, 3 hours/week. Corequisite: CHEM 332.

### **CHEM 405. Physical Chemistry. (4).**

The study of kinetic theory, structure of condensed phases, thermodynamics, equilibria, electrochemistry, quantum chemistry and chemical kinetics. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: one year each of calculus and physics or consent of instructor.

### **CHEM 405L. Physical Chemistry Lab. (0).**

### **CHEM 406. Physical Chemistry. (4).**

The study of kinetic theory, structure of condensed phases, thermodynamics, equilibria, electrochemistry, quantum chemistry and chemical kinetics. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: one year each of calculus and physics or consent of instructor.

### **CHEM 406L. Physical Chemistry Lab. (0).**

### **CHEM 411. Advanced Inorganic Chemistry. (3).**

The advanced treatment of special topics in inorganic chemistry, including atomic structure, classification of elements and inorganic reactions in aqueous and non-aqueous solutions. Lecture, 3 hours/week. Prerequisite: consent of instructor. (on demand).

### **CHEM 412. Advanced Organic Chemistry. (3).**

Further study in organic chemistry, emphasizing synthesis, reaction mechanisms and stereoisomerism. Lecture, 3 hours/week. Prerequisite: CHEM 332 or consent of instructor. (on demand).

### **CHEM 421. Qualitative Organic Analysis. (3).**

The classification, reactions, derivatives and identification of organic compounds. Lecture, 1 hour/week; Laboratory, 6 hours/week. Prerequisite: CHEM 332 and CHEM 342 or consent of instructor. (on demand).

### **CHEM 421L. Qualitative Organic Analysis Lab. (0).**

**CHEM 425. Biochemistry. (3).**

The study of structure, function and metabolism of biomolecules as well as enzyme kinetics, thermodynamics and regulation of metabolic processes. Lecture, 3 hours/week. Prerequisite: CHEM 201 or CHEM 332 or consent of instructor. (cross-listed with BIOL 425).

**CHEM 425L. Biochemistry Lab. (1).**

Selected biochemistry lab techniques, including protein purification, enzyme kinetics, chromatography and electrophoresis. Laboratory, 3 hours/week. Prerequisite: Concurrent enrollment in BIOL 425 / CHEM 425. (cross-listed with BIOL 425L).

**CHEM 461. Chemical Preparations. (2).**

The preparation and purification of selected inorganic or organic compounds; introduces the student to chemical literature and laboratory research methods. Prerequisite: consent of instructor.

**CHEM 482. Selected Topics. (1-4).****CHEM 482L. Selected Topics Lab. (1-4).****CHEM 485. Capstone Seminar. (2).**

Introduces students to the skills and practices required of professional scientists. Students will gain experience with conducting literature searches, conducting and presenting scientific work, reviewing the work of others and writing research proposals. Prerequisite: senior standing.

**CHEM 490. Independent Study. (1-4).****CHEM 492. Internship. (1-4).**

## Bioengineering

Great advances have recently been made in the fields of genetics/molecular biology as well as predictive engineering analysis and design, both enabled by rapid progress in computational sophistication. As a consequence, the highly interdisciplinary applied science of bioengineering has emerged as a critical core curriculum.

The bioengineering program at CLU integrates engineering, biology, chemistry, mathematics, computer science, exercise science, and physics with a liberal arts foundation to provide graduates with the knowledge and qualifications needed to enter the fields of health care, medicine, manufacturing, electronics, agriculture and materials, or to continue study toward advanced degrees or professional certification.

The interdisciplinary bioengineering program is centered on a mechanistic understanding of the life sciences and builds upon fundamental molecular, genomic and cellular principles to address challenges and opportunities involving, for example, medical devices, implants and sensors, tissue engineering, bioinformatics and imaging. Specific topics that are addressed include biomaterials and tissue engineering, biosystems analysis and control, biomechanics, bioinformatics, biosensors and imaging, bioinstrumentation, ethics and biochemistry.

Furthermore, the bioengineering program comprises three focus areas as illustrated in the figure above:

- bioinformatics
- bioelectronics/devices
- biomaterials/biomechanics.

Students are able to select a specific area of interest based upon their choice of upper division bioengineering classes.

Bioengineering students at CLU are given multiple opportunities to develop practical, hands-on skills for their careers, emphasizing techniques and practices for acquiring and interpreting data from biological systems. Inquiry-based undergraduate student research is a central component of the bioengineering program, with a focus on the critical analysis of the issues that arise at the interfaces between living and non-living materials. All seniors undertake an independent design project that includes optimized solutions and designs.

The bioengineering program is fully supported by an array of experimental laboratories for classroom and design projects. Coupled with these are sophisticated computer-aided design (CAD) capabilities for predictive modeling of the structure and performance of three-dimensional systems. Together, these capabilities provide the bioengineering students with the powerful ability to develop and refine predictive models to solve complex problems. Finally, bioengineering students are frequently involved in interactive projects requiring integration of these interdisciplinary topics, which prepares them both for personal growth as well as a rewarding career.

## Bachelor of Science in Bioengineering

39 credits minimum, 24 credits upper division.

BIEN 210/210L	Introduction to Engineering and Introduction to Engineering Lab	4
BIEN 220	Introduction to Bioengineering/Lab	4
BIEN 450/450	Seminar (2 units of BIEN 450)	2
BIEN 495	Capstone	2
BIOL 121	Intro to Cells and Organisms	3
BIOL 122	Intro. to Genes and Development	3
BIOL 123L	Introduction to Biological Experimentation I	2
or BIOL 124L	Introduction to Biological Experimentation II	
BIOL 461/461L	Vertebrate Physiology and Vertebrate Physiology Lab	4
Select four of the following:		15-16
BIEN 401	Biomaterials/Tissue Engineering/Lab	
BIEN 402	Biosensors and Imaging	
BIEN 403	Biosystems Analysis and Control	
BIOL 482	Selected Topics (Neurobiology)	
BIOL 422	Bioinformatics-Analytical	
CHEM 305/305L	Quantitative Analysis and Quantitative Analysis Lab	
CHEM 306/306L	Chemical Instrumentation and Chemical Instrumentation Lab	
CHEM 425/425L	Biochemistry and Biochemistry Lab	
CSC 412	Bioinformatics-Computational	
EXSC 460	Mechanics of Biosystems - Calculus	
PHIL 345	Bioethics	
PHYS 309/309L	Applied Electronics and Applied Electronics Lab	
PHYS 370	Digital Electronics	
Total Hours		39-40

### Required Supporting Courses

CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
CHEM 201/201L	Elementary Organic Chemistry and Elementary Organic Chemistry Lab	4
CSC/SCI 205	Programming for Scientists	4
or CSC 210	Introduction to Computer Programming	
MATH 251	Calculus I	4
MATH 252	Calculus II	4
MATH 261	Calculus III	4
MATH 265	Differential Equations	4
MATH 352	Probability and Statistics I	4
PHYS 201/201L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab	4-5
or PHYS 211/211L	Mechanics and Thermodynamics-Calculus	
PHYS 202/202L	Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	4-5
or PHYS 212/212L	Electricity, Magnetism, and Optics - Calculus	
Total Hours		46-48

### Recommended Courses

BIOL 341/341L	Comparative Anatomy and Comparative Anatomy Lab	4
BIOL 361/361L	Microbiology and Microbiology Lab	4
MATH 343	Linear Algebra	4

MATH 450	Complex Analysis	4
Total Hours		16

## Minor in Bioengineering

20 credits minimum, 11 credits upper division.

BIEN 220	Introduction to Bioengineering/Lab	4
BIOL 122	Intro. to Genes and Development	3
BIOL 124L	Introduction to Biological Experimentation II	2
Select two of the following:		8
BIEN 401	Biomaterials/Tissue Engineering/Lab	
BIEN 402	Biosensors and Imaging	
BIEN 403	Biosystems Analysis and Control	
BIOL 422	Bioinformatics-Analytical	
CSC 412	Bioinformatics-Computational	
Select remaining upper division credits from the following:		3
BIOL 482	Selected Topics (Neurobiology)	
CHEM 305/305L	Quantitative Analysis and Quantitative Analysis Lab	
CHEM 306/306L	Chemical Instrumentation and Chemical Instrumentation Lab	
CHEM 425/425L	Biochemistry and Biochemistry Lab	
EXSC 460	Mechanics of Biosystems - Calculus	
PHIL 345	Bioethics	
PHYS 309/309L	Applied Electronics and Applied Electronics Lab	
PHYS 370	Digital Electronics	
Total Hours		20

## Courses

### Lower Division

#### BIEN 210. Introduction to Engineering. (4).

An introduction to the basic concepts of engineering - analysis, design, modeling, systems theory, control. Topics include electronics, mechanics, materials with a brief overview of bioengineering.

#### BIEN 210L. Introduction to Engineering Lab. (0).

#### BIEN 220. Introduction to Bioengineering/Lab. (4).

The second semester continuation of BIEN 210, emphasizing the application of engineering analysis and design principles to life sciences. Topics include analytical techniques, characterization and analysis, systems analysis. Biomechanics, biocompatibility, hydrodynamics and bioelectronics are introduced.

#### BIEN 282. Selected Topics. (1-4).

### Upper Division

#### BIEN 320. Introduction to Robotics. (4).

An introductory study of field of robotics - devices designed and programmed to perform various tasks. Topics include: hardware design (mechanical and electronic); software design; power subsystems; sensors; actuators; effectors; applications; comparison to biological systems; safety; societal impact and ethics. Students will study theory (lecture component) and build/program a robot (laboratory component).

#### BIEN 401. Biomaterials/Tissue Engineering/Lab. (4).

A study of the fundamental relationships between the physical and biological properties of ceramics, metals, polymers, their composites and their microstructures. Topics include methods of synthesis, 3D scaffolds, crystallography, constitutive relationships and failure criteria, biocompatibility criteria, case studies. Interfaces and their characterization are studied in depth. Prerequisites: BIEN 210, BIEN 220 or consent of instructor.

**BIEN 402. Biosensors and Imaging. (4).**

An introduction to the central concepts of sensing, feedback and control in biological applications, addressing mechanical, thermal, hydrodynamic, electromagnetic and chemical/biological stimuli and detection. Analog/digital conversion and signal conditioning across multiple length, spectral and temporal domains. Signal processing techniques are treated in depth. Prerequisites: BIEN 210, BIEN 220 or consent of instructor.

**BIEN 403. Biosystems Analysis and Control. (4).**

The development of biological systems analysis and open/closed loop control with an emphasis on techniques and software for predictive modeling. Optimization of the performance of biosystems comprising multiple, parallel processes will be addressed, with an emphasis on electrical and chemical control systems. Prerequisites: BIEN 210, BIEN 220, PHYS 309 or consent of instructor.

**BIEN 450. Seminar. (1).**

Key topics of interest aimed at familiarizing first- and second-year bioengineering students with key areas of study at the upper division level. External speakers will be utilized to introduce contemporary bioengineering topics to students in a seminar protocol.

**BIEN 482. Selected Topics. (1-4).****BIEN 482L. Selected Topics Lab. (0).****BIEN 490. Independent Study. (1-4).****BIEN 492. Internship. (1-4).****BIEN 495. Capstone. (2).**

Investigation, analysis and summary of a basic question or problem statement developed by the student arising from related courses and personal interests. The student is encouraged to explore open-ended questions that involve original thinking and the application of knowledge gained during the undergraduate experience. Prerequisite: senior standing.

**BIEN 497. Bioengineering Departmental Honors. (4).**

## Biology

Biologists study many aspects of how *life* operates – from the molecular details of how cells work to how entire ecosystems function. The course offerings in the CLU Biology Department reflect this diversity, with courses ranging from molecular to marine biology.

The Biology Department emphasizes “doing” science rather than listening to it or reading about it. Small classes and the availability of a faculty with diverse research interests allow students to get involved in ongoing scholarship. Students are encouraged to join faculty mentors as collaborators, either in formal laboratory or field classes, or in mentored research outside of the classroom. Undergraduate research projects help make CLU graduates more competitive in their chosen career paths.

At CLU, biology majors typically focus on one of three general career paths: health careers, which include physician, dentist, veterinarian or physical therapist; research in biological fields such as botany, physiology, marine biology, ecology, genetics or molecular biology; or teaching.

Careers in biology are available in both government and private companies and include positions in research, teaching, administration and sales of pharmaceuticals or medical equipment. In addition, the growing areas of genetics and biotechnology provide many career opportunities. The global biotechnology company Amgen is located near the University and hires CLU graduates each year.

Likewise, many biology majors from CLU are accepted into medical, dental and graduate schools throughout the United States.

Students interested in careers in teaching may obtain teaching credentials through the School of Education.

## Bachelor of Arts in Biology

32 credits minimum, 20 credits upper division. At least 16 biology units must be taken at CLU.

BIOL 120	Introduction to Ecology and Populations	3
BIOL 121	Intro to Cells and Organisms	3
BIOL 122	Intro. to Genes and Development	3
BIOL 123L	Introduction to Biological Experimentation I	2
BIOL 124L	Introduction to Biological Experimentation II	2
BIOL 311/311L	Ecology and Evolution and Ecology and Evolution Lab	4

Select one of the following: (Biol 399, 498, 499 - Dept Honors Option)	8-2
BIOL 399/498/499 or BIOL 463	Junior Honors and Senior Honors I - Capstone and Senior Honors II - Capstone Scientific Literature
Select three courses from the following with at least one from each category:	12
<b>Molecular and Cellular Biology</b>	
BIOL 331/331L	Genetics and Genetics Lab
BIOL 375/375L	Cell Biology and Cell Biology Lab
BIOL 425/425L	Biochemistry and Biochemistry Lab
BIOL 426/426L	Molecular Biology and Molecular Biology Lab
BIOL 428/428L	Virology and Virology Lab
<b>Organismal Biology and Ecology</b>	
BIOL 325/325L	Environmental Ecology and Environmental Ecology Lab
BIOL 345/345L	Marine Biology and Marine Biology Lab
BIOL 352/352L	Oceanography and Oceanography Lab
BIOL 361/361L	Microbiology and Microbiology Lab
BIOL 452/452L	California Plant Communities and California Plant Communities Lab
<b>Functional Biology</b>	
BIOL 341/341L	Comparative Anatomy and Comparative Anatomy Lab
BIOL 342/342L	Developmental Biology and Developmental Biology Lab
BIOL 343/343L	Invertebrate Zoology and Invertebrate Zoology Lab
BIOL 350/350L	Introduction to Neuroscience and Neuroscience Lab
BIOL 461/461L	Vertebrate Physiology and Vertebrate Physiology Lab
Upper Division Biology Elective Credits (if needed)	0-2
Total Hours	37-33

## Required Supporting Courses

MATH 231 or MATH 251	Biostatistics (or a statistics course taught in a math department) Calculus I	4
CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
Select one of the following:		4
CHEM 331/341	Organic Chemistry and Organic Chemistry Lab	
CHEM 201/201L	Elementary Organic Chemistry and Elementary Organic Chemistry Lab	
Total Hours		18

## Bachelor of Science in Biology

40 credits minimum, 28 credits upper division. At Least 16 biology units must be taken at CLU.

BIOL 120	Introduction to Ecology and Populations	3
BIOL 121	Intro to Cells and Organisms	3
BIOL 122	Intro. to Genes and Development	3
BIOL 123L	Introduction to Biological Experimentation I	2
BIOL 124L	Introduction to Biological Experimentation II	2
BIOL 311/311L	Ecology and Evolution and Ecology and Evolution Lab	4
Select one of the following: (Biol 399, 498, 499 - Dept Honors Option)		8-2
BIOL 399/498/499 or BIOL 463	Junior Honors and Senior Honors I - Capstone and Senior Honors II - Capstone Scientific Literature	
Select four courses from the following with at least one from each category: <sup>1</sup>		16
<b>Molecular and Cellular Biology</b>		
BIOL 331/331L	Genetics and Genetics Lab	
BIOL 375/375L	Cell Biology and Cell Biology Lab	

BIOL 425/425L	Biochemistry and Biochemistry Lab	
BIOL 426/426L	Molecular Biology and Molecular Biology Lab	
BIOL 428/428L	Virology and Virology Lab	
<b>Organismal Biology and Ecology</b>		
BIOL 325/325L	Environmental Ecology and Environmental Ecology Lab	
BIOL 345/345L	Marine Biology and Marine Biology Lab	
BIOL 352/352L	Oceanography and Oceanography Lab	
BIOL 361/361L	Microbiology and Microbiology Lab	
BIOL 452/452L	California Plant Communities and California Plant Communities Lab	
<b>Functional Biology</b>		
BIOL 341/341L	Comparative Anatomy and Comparative Anatomy Lab	
BIOL 342/342L	Developmental Biology and Developmental Biology Lab	
BIOL 343/343L	Invertebrate Zoology and Invertebrate Zoology Lab	
BIOL 350/350L	Introduction to Neuroscience and Neuroscience Lab	
BIOL 461/461L	Vertebrate Physiology and Vertebrate Physiology Lab	
Upper Division Biology Elective Credits (if needed)		0-6
Total Hours		41

1 Students that successfully complete the Biology Department Honors Program are exempted from one of these four course requirements.

## Required Supporting Courses

Select one of the following:		8-10
PHYS 201/201L/202/202L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab and Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	
PHYS 211/211L/212/212L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab and Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab	
Select one of the following:		4
MATH 231 or MATH 251	Biostatistics (or Statistics course taught in a Math Department) Calculus I	
CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
Select one of the following:		
CHEM 331/341	Organic Chemistry and Organic Chemistry Lab	
CHEM 201/201L	Elementary Organic Chemistry and Elementary Organic Chemistry Lab	
Total Hours		22-24

## Minor in Biology

20 Credits minimum, 12 credits upper division.

BIOL 120	Introduction to Ecology and Populations	3
BIOL 121	Intro to Cells and Organisms	3
BIOL 122	Intro. to Genes and Development	3
BIOL 123L	Introduction to Biological Experimentation I	2
BIOL 124L	Introduction to Biological Experimentation II	2
Upper Division Biology Electives		12
Total Hours		25

## The Biology Departmental Honors Program

Students with excellent academic credentials will be nominated by the Biology Department Faculty for Departmental Honors (Biol DH) in the Fall of their junior year. Students will be nominated based on Science GPA, Overall GPA, and demonstrated interest and aptitude for undergraduate research. Students who are not nominated may petition for admission to the Biol DH program by meeting with the Biology faculty in the Fall of their junior year.

Nominated/petitioned students who choose to participate in the Biol DH will enroll in a 2-unit Biology class, BIOL 399 Junior Honors, in the spring semester of their junior year. Students will then normally participate in the summer research on the proposed project between their junior and senior years. During the senior year, Biol DH students will enroll in BIOL 498 Senior Honors I - Capstone, during the Fall, and BIOL 499 Senior Honors II - Capstone in the Spring semester. Students who successfully complete these 8 units of coursework and present their work in a public setting will be awarded Departmental Honors in Biology.

## Courses

### Lower Division

#### **BIOL 111. Principles of Biology. (4).**

For non-majors or students not pursuing a preprofessional program related to biology. Includes general biological principles and a survey of the plant and animal organisms. Lecture, 3 hours/week; Laboratory, 2 1/2 hours/week.

#### **BIOL 111L. Principles of Biology Lab. (0).**

#### **BIOL 115. Current Issues in Marine Biology. (3).**

This course is designed for non-science majors and is an introduction to marine biology via current issues and problems facing our world's ocean environment. Topics include coastal population growth and associated pollution, fisheries, and fisheries management, plastics in the ocean, climate change and ocean acidification, mercury in seafood, beach erosion, alien species, marine biodiversity and coral reef ecology/decline. The course includes both lecture and laboratory experiences.

#### **BIOL 118. The Oceans. (4).**

For non-majors or students pursuing a minor in environmental studies. This general survey of geological and biological processes in the ocean has a strong environmental emphasis. Laboratory exercises and field trips illustrate and complement lecture material. Lecture, 3 hours/week; Laboratory, 2 1/2 hours/week. (cross-listed with GEOL 118).

#### **BIOL 118L. The Oceans Lab. (0).**

#### **BIOL 120. Introduction to Ecology and Populations. (3).**

This course is an introduction to the history of evolutionary thought and the mechanisms of evolution, including species formation and the use of phylogenetic information. Diversity of living organisms, from prokaryotes to advanced multicellular organisms, will be discussed with an emphasis on evolutionary relationships. The principles of population and community ecology will be treated. Ecosystems and the environmental impacts of human activities will also be discussed. No prerequisites. (offered fall semester).

#### **BIOL 121. Intro to Cells and Organisms. (3).**

This course introduces important areas of cell biology such as cell organization of both prokaryotic and eukaryotic cells, cellular membranes, and signaling mechanisms. Included will be discussion of bacteria, virus, fungi, and protists. Further studies will involve a broad comparative survey of animal physiology, including animal motility, respiratory and circulatory physiology, principles of immunology, neurobiology, endocrinology and reproduction. No prerequisites. Recommended: BIOL 120 (offered spring semester).

#### **BIOL 122. Intro. to Genes and Development. (3).**

This course introduces the mechanisms of heredity, the expression of genetic information and the means by which genes encode developmental programs. It will be seen that genetics and development are part of a continuous process and that the genetic mechanisms and developmental patterns of living organisms reveal a fundamental kinship of life on earth. Genetics as a tool for the study of biological problems will be introduced, as will some current topics in genomic research and biotechnology. Students willing to explore these topics in greater detail are referred to upper division courses in Genetics, Macromolecular Structure, Developmental Biology, Cell Biology and Molecular Biology. No prerequisites. Recommended: BIOL 120, BIOL 121. (offered fall semester).

**BIOL 123L. Introduction to Biological Experimentation I. (2).**

Biology 123 introduces students to the processes of investigative biology and communication. It is not designed to accompany any particular core lecture course. The course is designed to develop the skills students need to progress as young scientists: forming and testing hypotheses, scientific observation, interpreting results, experimentation, analysis and communication of scientific discovery (both oral and written). Laboratories cover some topics presented in some of the core lecture courses (BIOL 120, BIOL 121 and BIOL 122) and introduce a variety of techniques including field sampling, statistical analysis, classification of organisms and physiological measurement. The course emphasizes experimental design, data collection, statistical analysis, integration of results with information reported in the scientific literature and the effective communication of conclusions. Evaluation is based on short lab assignments and scientific papers. A laboratory manual must be purchased. There are no prerequisites. Enrollment is limited to 16 students in each section. (offered fall semester).

**BIOL 124L. Introduction to Biological Experimentation II. (2).**

BIOL 124 continues to expose students to the processes of investigative biology and communication. It is not designed to accompany any particular core lecture course, but should be taken after BIOL 123L. Laboratories cover some topics presented in some of the lecture courses, BIOL 120, BIOL 121 and BIOL 122 and introduce a variety of subjects including virology, gene expression, gene sequence analysis, gene manipulation and bioinformatics. The course emphasizes experimental design, data collection, statistical analysis, the integration of results with information reported in the literature and the effective communication of conclusions. In line with the philosophy of our inquiry-based curriculum, BIOL 124 culminates in an independent project module, where students design and conduct their own experiments, analyze data (statistically, where appropriate) and present their results in both written and oral communications. Evaluation is based on short lab assignments and scientific papers; students will plan an oral presentation of their independent project. A laboratory manual must be purchased. There are no prerequisites; enrollment is limited to 16 students in each section. (offered spring semester).

**BIOL 211. Genes and Genesis. (4).**

This course introduces the mechanisms of heredity, the expression of genetic information, and the genetic control of development, emphasizing human biology. A central theme of the course is that we owe our genesis, both as species and as individuals, to the remarkable, and fascinating, properties of genes. Lectures will emphasize the experimental basis for our knowledge of human genetics. Special attention will be focused on issues at the interface of genetics and society (e.g., human reproductives: stem cell research, cloning, gene therapy). Students will explore methods of modern genetics, including DNA analysis and bioinformatics, in laboratory exercises that are conducted in lecture class periods.

**BIOL 221. Human Anatomy. (4).**

Human Anatomy is the study of the structure of the human body, from the cellular level to the organismal level with an emphasis on organ systems. While the focus of the course is structure, function will be covered in order to reinforce the interrelationship of the structure and function. Microscopic and gross anatomy will be studied in the laboratory. Specimens studied in lab include microscopic slides, human bones, plastic models, clay models and anatomical specimens and isolated mammalian organs will be used for dissection. Lecture, 3hrs/week; Lab, 2.5 hours/week.

**BIOL 221L. Human Anatomy Lab. (0).****BIOL 222. Human Physiology. (4).**

Human Physiology is the study of mechanisms that underlie the functioning of the human body, from the molecular level to the organismal level with an emphasis on organ systems. Physiology is a biological science that is inherently interdisciplinary since it utilizes mathematics, physics, chemistry and biology. While the focus of the course is physiology, anatomy will be covered in order to reinforce the interrelationship of structure and function. In the laboratory, students will conduct experiments related to the topics covered in the lecture. In the lab, students conduct hands-on investigational activities many of which involve recording and analyzing data from human subjects. Some laboratory exercises involves interactive computer situations. Lecture, 3hrs/week; Lab, 2.5 hours/week. Prerequisites: Human Anatomy BIOL 221 or BIOL 121. High school or college chemistry highly recommended.

**BIOL 222L. Human Physiology Lab. (0).****BIOL 223. Human Anatomy. (4).**

Human Anatomy is the study of the structure of the human body, from the cellular level to the organismal level with an emphasis on organ systems. While the focus of the course is structure, function will be covered in order to reinforce the interrelationship of structure and function. Microscopic and gross anatomy will be studied in the laboratory. Specimens studied in lab include microscopic slides, human bones, plastic models, clay models, and anatomical images (e.g., micrographs, radiographic images, photos, medical illustrations). Mammalian specimens and isolated mammalian organs will be used for dissection. Lecture, 3 hrs/week; Lab, 2.5 hours/week. Prerequisites: none.

**BIOL 223L. Human Anatomy Lab. (0).****BIOL 282. Selected Topic. (1-4).**

## Upper Division

**BIOL 304. Wildflowers of the Sierras. (3).**

A study of the flora of the eastern Sierra Nevada, including the classification and ecological relationships of the various species. The major plant families are studied as an aid to identification, and collection techniques are discussed. A field trip to the Sierras is included. (summers only).

**BIOL 305. Flora of Southern California. (3).**

A study of native and introduced plants of Southern California, relating structure and form to environment. Plant families will be studied as a means of identification. Considerable class time will be spent in the field, observing plant characteristics and learning identification and collection techniques. (summers only).

**BIOL 311. Ecology and Evolution. (4).**

An introduction to the multidisciplinary nature of ecology, evolution and their underlying processes. Emphasis is placed on the fundamentals of ecology, evolutionary effects on populations and ecosystems and the relationship between ecological and evolutionary processes. Lecture, 3 hours/week; Lab/Discussion, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L.

**BIOL 311L. Ecology and Evolution Lab. (0).****BIOL 312. Darwin. (2).**

"Darwin" is a 2-unit seminar course that explores the life and science of Charles Darwin. Students read two biographical books; (1) Charles Darwin: Voyaging and (2) Charles Darwin: the Power of Place. Each biographical sketch is a reflection of Darwin's personal life and how it influenced his scientific discoveries. In addition, the course not only focuses on Darwin but also places his works into a historical context. Students learn about the history of science and about the many scientists who were working at the same time as Charles Darwin. Students discuss matters of biological interest and are required to write summaries of their readings. Prerequisite: BIOL 120, BIOL 124L, BIOL 311.

**BIOL 325. Environmental Ecology. (4).**

A study of ecology with emphasis on humans and the environment. Problems such as overpopulation, food production, water and air pollution, the energy crisis and toxic waste disposal are discussed; their possible solutions are considered along with the social, political and economic ramifications. Lecture, 3 hours/week; Laboratory, 2 1/2 hours/week. Prerequisite: BIOL 122, BIOL 124L or equivalent.

**BIOL 325L. Environmental Ecology Lab. (0).****BIOL 331. Genetics. (4).**

This course concerns the mechanisms by which genetic information is stored, decoded and transmitted. We will focus on the experimental basis upon which our understanding of the above mechanisms rests. Methods of genetic analysis that involve interpretation of abstract data will be emphasized, although molecular and bioinformatic approaches, including structural and functional genomics, will be treated. The use of genetic analysis as an incisive tool to dissect biological processes will be a central theme of the course. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 121, BIOL 123L.

**BIOL 331L. Genetics Lab. (0).****BIOL 332. Macromolecular Structure. (2).**

The elaborate interplay of a variety of macromolecules underlies the mechanisms that govern cell function. This advanced course deals with the structure-function relationships of these macromolecular machines. It is intended that students emerge from this course with a deep understanding of the principles that govern macromolecular structure and the functional consequences of these principles. This is a seminar class in which students must assume responsibility for their own learning. Students will come to class prepared to discuss the reading assignment for the week. Lectures will focus on teaching the methods that students will employ to construct a Web-based tutorial on a macromolecule, chosen with input from the professor. Prerequisites: BIOL 122.

**BIOL 341. Comparative Anatomy. (4).**

The comparative study of vertebrate anatomy within an evolutionary perspective; includes the evolution, development, structure and function of vertebrate systems. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L.

**BIOL 341L. Comparative Anatomy Lab. (0).****BIOL 342. Developmental Biology. (4).**

This advanced course concerns the mechanisms by which multicellular organisms are constructed. We will focus on the experimental evidence that supports our understanding of these mechanisms. After an introduction to the history of developmental biology, the processes of gametogenesis, fertilization, cleavage, gastrulation and organogenesis will be covered. The course will progress to a treatment of some of the mechanisms by which genes are differentially expressed during the embryogenesis of model organisms, including *Drosophila*, *Xenopus* and mouse. We will finish up with considerations of developmental mechanisms of evolutionary change. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L; CHEM 151, CHEM 152. Recommended: BIOL 331; CHEM 201 or CHEM 331.

**BIOL 342L. Developmental Biology Lab. (0).**

**BIOL 343. Invertebrate Zoology. (4).**

Studies the morphology, physiology, taxonomy and ecology of most invertebrate phyla. Field trips and laboratory observation of living animals are emphasized. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 120, BIOL 123L.

**BIOL 343L. Invertebrate Zoology Lab. (0).****BIOL 345. Marine Biology. (4).**

The study of marine life of the world, with special emphasis on tidepool and shallow water life of the West Coast. Includes identification, distribution, adaptations of marine forms and their interrelationship to each other. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: BIOL 120, BIOL 123L.

**BIOL 345L. Marine Biology Lab. (0).****BIOL 350. Introduction to Neuroscience. (4).**

Neuroscience is an interdisciplinary science that examines the fundamental principles that govern the action of neurons and nervous systems. The course covers the structure and function of the nervous system with an emphasis on the mammalian nervous system. There are four main topic areas: the cellular organization of the nervous system; neuronal signaling (the ionic mechanisms underlying electrical activity in the nerve cells and the physiology and biochemistry of synaptic transmission); transduction and coding of sensory information; the generation and coordination of motor output and behavior. Higher order functions such as memory, language, and behavior will be covered.

**BIOL 350L. Neuroscience Lab. (0).****BIOL 352. Oceanography. (4).**

An introduction to the multidisciplinary nature of oceanography, including the origin and geography of the ocean basins, physical and chemical properties of sea water, the shaping of coastlines, oceanic and atmospheric circulation patterns and ecological relationships of marine organisms and the ocean environment. Lecture, 3 hours/week; Laboratory, 2 1/2 hours/week. Prerequisite: BIOL 120, BIOL 123L.

**BIOL 352L. Oceanography Lab. (0).****BIOL 361. Microbiology. (4).**

Studies the morphology, physiology, taxonomy and ecology of micro-organisms and their role in infection and disease. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: BIOL 122, BIOL 124L or equivalent.

**BIOL 361L. Microbiology Lab. (0).****BIOL 375. Cell Biology. (4).**

The cellular nature of life is explored by studying prokaryotic and eukaryotic cells and their component parts at the structural and functional levels. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L; CHEM 151, CHEM 152. Recommended: BIOL 331; CHEM 201 or CHEM 331.

**BIOL 375L. Cell Biology Lab. (0).****BIOL 399. Junior Honors. (2).**

This class consists of mentored literature research, in which students work closely with a faculty member to develop an approach to address a particular question in biology. Each student will produce several drafts of a literature review/research proposal, which frames the questions being addressed by the proposed research and provides a strategy for an experimental approach(es) to address these questions. The research proposal will serve as the basis for subsequent Senior Honors courses (BIOL 498 and BIOL 499). A student's grade will be determined by quality of the final draft as determined by two faculty readers (the research mentor and one other). Prerequisites: Permission of instructor.

**BIOL 422. Bioinformatics-Analytical. (4).****BIOL 425. Biochemistry. (3).**

The study of the structure and function of proteins and the metabolism of biomolecules. The structure and function of proteins, lipids, carbohydrates, and vitamins is covered, as well as topics such as enzymology, membranes and transport, thermodynamics, carbohydrate and lipid metabolism, and the regulation of metabolic processes. Lecture, 3 hours/week. Prerequisite: CHEM 201 or CHEM 332 or consent of instructor (cross-listed with CHEM 425).

**BIOL 425L. Biochemistry Lab. (1).**

Selected biochemistry lab techniques, including protein purification, enzyme kinetics, chromatography and electrophoresis. Laboratory, 3 hours/week. Prerequisite: concurrent enrollment in BIOL 425 / CHEM 425. (cross-listed with CHEM 425L).

**BIOL 426. Molecular Biology. (4).**

The study of the structure, biosynthesis, and function of nucleic acids and proteins. Topics include chromatin structure, replication, transcription, translation, the genetic code, gene regulation, recombination, mutations, and genomics. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: BIOL 122.

**BIOL 426L. Molecular Biology Lab. (0).****BIOL 427. Recombinant DNA Techniques. (2).**

Includes the theory and practice of gene cloning, with emphasis on practical knowledge of standard techniques in genetic engineering. Techniques include DNA purification, construction of plasmid gene libraries and DNA sequencing. Lecture, 1 hour/week; Laboratory, 3 hours/week. Prerequisite: BIOL 331 or BIOL 426.

**BIOL 428. Virology. (4).**

The study of prokaryotic and eukaryotic viruses, including their phylogeny, structure, replication, gene expression, transmission, and virus-host interactions. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: BIOL 122, BIOL 331, or BIOL 426.

**BIOL 428L. Virology Lab. (0).****BIOL 434. Medical Microbiology. (2).**

The host-parasite relationship with emphasis on bacteria and viruses, including mechanisms involved in disease production as well as host defenses. Prerequisites: BIOL 121, BIOL 122, BIOL 123L, BIOL 124L.

**BIOL 452. California Plant Communities. (4).**

Students learn to recognize the characteristic plants of the various plant communities of Southern California. Problems resulting from habitat destruction, urbanization and loss of species are discussed. Laboratory includes collection and identification techniques and habitat comparisons. Lecture, 3 hours/week; Laboratory and fieldwork, 3 hours/week. Prerequisites: BIOL 120, BIOL 121, BIOL 123L.

**BIOL 452L. California Plant Communities Lab. (0).****BIOL 461. Vertebrate Physiology. (4).**

A study of fundamental physiological processes of vertebrate tissues organs and systems. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: BIOL 121, BIOL 122, BIOL 123L; CHEM 151, CHEM 152. Recommended: CHEM 201 or CHEM 331.

**BIOL 461L. Vertebrate Physiology Lab. (0).****BIOL 463. Scientific Literature. (2).**

An introduction to scientific literature. In this two-unit seminar course, students read scientific papers and analyze the works of other scientists. Prerequisites: BIOL 120, BIOL 121, BIOL 122, BIOL 123L, BIOL 124L, senior standing.

**BIOL 482. Selected Topics. (2).****BIOL 482L. Selected Topics Lab. (0).****BIOL 490. Independent Study. (1-4).****BIOL 492. Internship. (1-4).****BIOL 498. Senior Honors I - Capstone. (3).**

The class will consist of continuing faculty-mentored research through experimental or observational studies. Students are required to keep an accurate account of their experiments/studies and to meet with their research mentors on a regular basis. A grade will be determined by the student's research mentor, based on effort and quality of research. Prerequisite: BIOL 399.

**BIOL 499. Senior Honors II - Capstone. (3).**

This class consists of continuing faculty-mentored research through experimental or observational studies. Students are required to keep an accurate account of their experimentals/studies and to meet with their research mentors on a regular basis. A thesis, written in proper scientific format, is required. The thesis and a public presentation of the Honors research will be graded by the research mentor and one additional faculty member. Prerequisite: BIOL 399, BIOL 498.

# Business Administration

The California Lutheran University School of Business provides a learning environment in which students can realize their full potential for professional preparation and personal growth.

One of the three degree options in the School of Business is a bachelor of science in business administration that combines a solid background in the liberal arts and sciences with an in-depth study of the business-related disciplines.

All business administration students complete a core managerial program comprised of courses in:

- accounting
- business law
- finance
- organizational behavior
- computer information systems
- marketing
- strategic management.

Students then choose a concentration in one of the following:

- business economics
- finance
- international business
- marketing
- management
- information technology management
- small business/entrepreneurship.

CLU encourages students to work in the business world through internships, and the university environment provides an opportunity to experience the world of national and international business. Students benefit from CLU's research and service-oriented centers including the Economic Research Center and the Center for Leadership and Values.

A degree in business administration allows a graduate to enter a variety of business careers including business ownership, banking, management, marketing, international trade and consulting.

The CLU School of Business also offers graduate courses leading to the master of business administration.

## Bachelor of Science in Business Administration

45 credits minimum, 33 credits upper division in Business Administration and Economics. Additional requirements from one emphasis area.

BUS 251	Principles of Accounting	4
BUS 252	Managerial Accounting	4
BUS 367	Behavior in Organizations	4
BUS 374	Business Law	4
BUS 375	Principles of Marketing	4
BUS 381	Information, Systems, and Organizational Design	4
BUS 391	Principles of Finance	4
BUS 469	Strategic Management (capstone)	4
ECON 311	Statistical Methods	4
Total Hours		36

## Required Supporting Courses

ECON 203/203L	General Economics and General Economics Lab	5
BUS 301	Communication for Managers	4
or COMM 306	Business and Professional Communication	
MATH 245	Applied Calculus (or equivalent)	4
Select one of the following:		4

PHIL 300	Ethics	
PHIL 315	Social Ethics	
PHIL 350	Technology and Value	
REL 350	Contemporary Christian Ethics	
REL/BUS 354	Theology and Business Ethics	
Total Hours		17

## Business Economics Emphasis Requirements

Select three of the following:		12
ECON 312	Quantitative Analysis in Business	
ECON 321	Money and Banking and Capital Markets	
ECON 406	Intermediate Macro-Economics	
ECON 411	Intermediate Microeconomics	
ECON 414	Economics of the Environment	
ECON 416	International Economics	
ECON 445	Research Methods - Capstone	
ECON 460	Economic Development	
BUS 472	International Finance	
BUS 475	Investment Analysis and Portfolio Development	
Independent Study <sup>1</sup>		
Special Topics <sup>1</sup>		
Total Hours		12

<sup>1</sup> Appropriate Independent Study or Special Topics courses when approved by the faculty adviser and the Dean of the School of Business.

## Finance Emphasis Requirements

Select three of the following:		12
BUS 392	Intermediate Finance	
BUS 393	Corporate Finance	
BUS 395	Financial Strategy	
BUS 472	International Finance	
BUS 475	Investment Analysis and Portfolio Development	
ECON 312	Quantitative Analysis in Business	
ECON 321	Money and Banking and Capital Markets	
Independent Study <sup>1</sup>		
Selected Topics <sup>1</sup>		
Total Hours		12

<sup>1</sup> Appropriate Independent Study or Selected Topics courses when approved by the faculty adviser and the Dean of the School of Business.

## Information Technology Management Emphasis

Select three of the following:		12
BUS 321	Computer Organizations and Architecture	
BUS 350	Data Communication and Networks	
BUS 410	Database Management Systems	
or BUS 355	Client/Server Fundamentals	
or BUS 370	Multimedia Technology	
or BUS 400	Graphical User Interface	
Independent Study <sup>1</sup>		
Special Topics <sup>1</sup>		
Total Hours		12

<sup>1</sup> Appropriate Independent Study or Special Topics courses when approved by the faculty adviser and the Dean of the School of Business.

## Required Supporting Courses

CSC 210	Introduction to Computer Programming	4
MATH 241	Discrete Mathematics	4
Total Hours		8

## International Business Emphasis

BUS 394	International Business	4
Select one of the following:		4
ECON 416	International Economics	
ECON 460	Economic Development	
BUS 472	International Finance	
BUS 474	International Marketing	
BUS 476	International Business Behavior	
Select one of the following:		4
BUS 418	Business in China and India	
BUS 485	Seminar	
Independent Study <sup>1</sup>		
Selected Topics <sup>1</sup>		
Study Abroad <sup>1</sup>		
Total Hours		12

<sup>1</sup> Appropriate independent study, selected topics courses, or certain study abroad courses, approved by the faculty advisor and the Dean (or designated Chair) of the School of Business.

## Management Emphasis Requirements

Select three of the following:		12
BUS 361	Human Resource Management	
BUS 439	Senior Seminar in Management Thought and Practice	
BUS 448	Organization Development	
BUS 449	Managerial Leadership: Core Competencies And Skills	
BUS 461	Advanced Human Resource Management	
BUS 468	Venture Development	
BUS 476	International Business Behavior	
BUS 479	Advanced Strategic Management	
Independent Study <sup>1</sup>		
Selected Topics <sup>1</sup>		
Total Hours		12

<sup>1</sup> Appropriate Independent Study or Selected Topics courses when approved by the faculty adviser and the Dean of the School of Business.

## Marketing Emphasis

Select three of the following:		12
BUS 342	Marketing Research/Consumer Behavior	
BUS 376	Sales Management	
BUS 440	Marketing Simulations	
BUS 442	Advertising Campaigns	
BUS 473	Marketing Management	
BUS 474	International Marketing	
Independent Study <sup>1</sup>		

Selected Topics <sup>1</sup>

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Total Hours	12
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1 Appropriate Independent Study or Selected Topics courses when approved by the faculty adviser and the Dean of the School of Business.

### Organizational Leadership Emphasis

BUS 446	Theories and Practice of Leadership	4
Select two of the following:		8
BUS 448	Organization Development	
BUS 439	Senior Seminar in Management Thought and Practice	
BUS 449	Managerial Leadership: Core Competencies And Skills	
BUS 482	Selected Topics (Non-Profit Leadership)	
BUS 492	Internship	

### Small Business/Entrepreneurship Emphasis

BUS 468	Venture Development	4
ECON 420	Economic Entrepreneurship	4
Select one course from the management emphasis requirement list.		4
BUS 361	Human Resource Management	
BUS 439	Senior Seminar in Management Thought and Practice	
BUS 448	Organization Development	
BUS 449	Managerial Leadership: Core Competencies And Skills	
BUS 461	Advanced Human Resource Management	
BUS 468	Venture Development	
BUS 476	International Business Behavior	
BUS 479	Advanced Strategic Management	

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Total Hours	12
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### Minor in Business Administration

20 credits minimum in Business Administration and Economics, 12 credits minimum upper division.

BUS 251	Principles of Accounting	4
BUS 252	Managerial Accounting	4
BUS 391	Principles of Finance	4
Select two of the following:		8
BUS 367	Behavior in Organizations	
BUS 374	Business Law	
BUS 375	Principles of Marketing	
BUS 381	Information, Systems, and Organizational Design	
ECON 311	Statistical Methods	

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Total Hours	20
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### Required Supporting Course

ECON 203/203L	General Economics and General Economics Lab	5
Total Hours		5

## Courses

### Lower Division

#### **BUS 151. Introduction to Business. (4).**

Students will have instruction in various business and economic topics (Marketing, Management, Finance, Personal Financial Planning, Economics, etc.) to better prepare them for making informed choices in selecting their ultimate degree and emphasis areas of study. Students will benefit from an introduction to advising and academic guidance. They will have an opportunity to meet with and be instructed by various faculty members from the school of business on a "guest professor" basis. Students in this course will participate in benchmarking exercises to contribute to outcomes assessment reports. Prerequisite to BUS 251 - Principles of Accounting.

#### **BUS 251. Principles of Accounting. (4).**

An introduction to the basic assumptions that underlie modern accounting: the principles, procedures and methods applied in the preparation of financial statements. Prerequisite: MATH 115 or equivalent and BUS 151.

#### **BUS 252. Managerial Accounting. (4).**

An examination of how accounting data is used, communicated and interpreted for internal use. Emphasis is placed on planning, control and decision making, particularly in a manufacturing setting. This course will include instruction in and application of computer spreadsheet programs. The student will be required to use word-processing and spreadsheet programs for work submitted during this course. In addition, an introduction to and use of Internet research resources are included in the course syllabus. Prerequisite: BUS 251.

#### **BUS 253. Financial Information in Business Organization. (4).**

This course is designed for non-business majors who are not required to take Principles of Accounting or Managerial Accounting. The intent of the course is to provide students with sufficient background in accounting and finance to allow them to function more effectively in their chosen careers. To that end, the course will cover the basics of financial accounting and managerial accounting, with some additional material typically covered in finance and economics courses.

#### **BUS 255. Environment of Business. (4).**

This course provides an introduction to and an overview of topics and disciplines addressed and taught in a typical Schools of Management curriculum. The topics are important background for the non-business major. It is an introductory-level treatment of course topics required in business emphasis areas: Accounting, Finance, Marketing, Management, Economics, and others. Career Services on campus are the basis for assignments with a focus on career readiness. Spreadsheet software is taught and used for completing assignments for the course. Importantly, expectations and standards for further coursework will be communicated so students are better able to set goals for success in their academic pursuits and chosen career.

#### **BUS 257. Practicum in Accounting. (2).**

Basic principles of accounting will be presented as a review for a solid foundation in GAAP and accounting. The course will include theory, as well as the completion of hands on financial statements using Excel and other software.

#### **BUS 275. Intro to Advertising. (3).**

An exploration of advertising from the management-marketing, consumer and communications creativity viewpoint. Focus is on general principles and broad perspectives with particular emphasis on strategy and how advertising fits into the total sales program.

#### **BUS 282. Selected Topics. (1-4).**

### Upper Division

#### **BUS 301. Communication for Managers. (4).**

The study of business communications methods with emphasis on planning, organizing, preparing and presenting major reports. Significant use of computer skills will be included, as well as design and structure of communication materials for the highest levels of impact.

#### **BUS 310. Managerial Use of Information Systems. (4).**

This course investigates the nature and uses of various types of information systems in business organizations, including decision support systems, expert systems, executive and management information systems, and communication systems. Examines the relationships between information system use and business strategy and the applications of information systems in the development of competitive advantage. (ADEP only).

#### **BUS 321. Computer Organizations and Architecture. (4).**

Principles of computer organization and architecture are introduced from a layered point of view, beginning at data representation and progressing through the machine language execution cycle. Representative hardware-software tradeoffs in the implementation of various computer system components will be presented. The design and interface to a variety of peripheral devices will also be discussed. The emphasis will be on the hardware aspects of a computer system.

**BUS 342. Marketing Research/Consumer Behavior. (4).**

A detailed focus on marketing research, strategy, statistical techniques and decision-theory concepts. Includes the nature of the influences affecting consumer behaviors, values, lifestyles, market segmentation, motivation and attitudes that form consumer marketing decisions. Prerequisite: junior standing.

**BUS 344. Copywriting/Storyboarding in Broadcast Advertising. (4).**

Designed as a "hands-on" communication and business course, this course provides an overview of broadcast media and develops skills in basic advertising/public relations campaign production techniques including scripting, copywriting and storyboarding. (cross-listed with COMM 344).

**BUS 350. Data Communication and Networks. (4).**

Includes a discussion of distributed data processing, communication techniques, wide-area and local-area networks, integrated services digital network, open-systems interconnections, security and network management.

**BUS 352A. Intermediate Accounting. (4).**

Includes detailed coverage of accounting theory and practice as applied to the corporate form of business. Topics include income statement, earnings per share, income tax allocation, compound interest, revenue recognition, price-level accounting, an introduction to fund accounting and a thorough treatment of balance sheet accounts. Prerequisites: BUS 251 (for BUS 352A), BUS 352A (for BUS 352B).

**BUS 352B. Intermediate Accounting II. (4).**

Includes detailed coverage of accounting theory and practice as applied to the corporate form of business. Topics include income statement, earnings per share, income tax allocation, compound interest, revenue recognition, price-level accounting, an introduction to fund accounting and a thorough treatment of balance sheet accounts. Prerequisites: BUS 251 (for BUS 352A), BUS 352A (for BUS 352B).

**BUS 354. Theology and Business Ethics. (4).**

This course applies ethical theory to business decisions within the context of theological reflection. With a strategic focus, the course will investigate the relationship between theological ethics and the economic concerns of managers. The course is particularly designed to help students become effective ethical agents by developing the skills to apply ethical principle to strategic business decisions. (cross-listed with REL 354).

**BUS 355. Client/Server Fundamentals. (4).**

Discusses modern technology in network communication and cooperative computation. Topics include client/server design concepts, software expectations, hardware requirements, service support and training issues. Prerequisite: CSC 220 or CSC 300.

**BUS 361. Human Resource Management. (4).**

A study of the use of the human resources within the organization. Includes recruiting, selecting and training employees, wage administration and union relations. Focus is on government regulation of employment practices, including Equal Opportunity Employment and affirmative action.

**BUS 365. Organization Theory. (4).**

Analysis and design of modern organizations with an emphasis on organizational technology. Perspectives include organization design, organization effectiveness and changing organization culture, and the organization and its external environment. Attention is given to emerging global realities. Integrates theoretical knowledge with practical applications.

**BUS 367. Behavior in Organizations. (4).**

An introduction to the methods and findings of the behavioral sciences on the persisting human problems of organizations. Attention is given to the roles of individual attributes, group dynamics and organizational structure in determining levels of performance at work. Prerequisite: junior standing.

**BUS 370. Multimedia Technology. (4).**

Introduces modern multimedia technologies. Topics include basic concepts, principles, sound images, animation, standards, hardware and software requirements, new technologies, current research and practice, and future directions.

**BUS 374. Business Law. (4).**

The study of law as it relates to business. Topics include contracts, agencies, commercial paper, personal property, sales, real property and insurance.

**BUS 375. Principles of Marketing. (4).**

The study of marketing methods and practices. Topics include policies and problems related to consumers, pricing, advertising, management information systems and distribution and management of the marketing function. (cross-listed with COMM 375).

**BUS 376. Sales Management. (4).**

This course concerns the sales and sales management functions as they exist in business-to-business sales settings. The course discusses current problems in sales management and the design of effective sales management processes and systems. Prerequisite: BUS 375.

**BUS 380. Principles of Advertising. (4).**

An exploration of advertising from an integrated marketing communications perspective. Focus is on general principles and broad perspectives with particular emphasis on strategy and the role of advertising in an integrated program. Students will examine consumer motivation, planning and development, the creative process and campaign execution and evaluation. (cross-listed with COMM 380).

**BUS 381. Information, Systems, and Organizational Design. (4).**

Surveys the major components of business information systems (hardware, networks, data and applications) and investigates the interrelationships between information, systems, organizational structure, processes and strategy.

**BUS 391. Principles of Finance. (4).**

Introduces students to the field of finance through an applied conceptual framework using problem sets and computer software to analyze various financial dilemmas. Topics include security valuation, risk analysis, working capital management, financial budgeting and planning, time value of money concepts, financial ratio analysis and capital budgeting. Prerequisite: BUS 252.

**BUS 392. Intermediate Finance. (4).**

Students learn to appreciate the usefulness and limitations of financial statements in valuation concepts and financial analysis and are made aware of the value of the role of financial information in capital markets. Concepts are reinforced through problem sets. Prerequisite: BUS 391.

**BUS 393. Corporate Finance. (4).**

Provides a conceptual framework for analyzing the major types of investment and financial decisions of corporations. The course reviews modern financial theory related to capital structure, cost of capital, dividend policy, intermediate and long-term financing, corporate restructuring and capital budgeting. Employs a mix of problem sets and cases. Prerequisite: BUS 391.

**BUS 394. International Business. (4).**

Covers international trade and its effect on the world economy. Includes the problems of the multinational firm and the impact of numerous environmental factors on the conduct of business across national boundaries.

**BUS 395. Financial Strategy. (4).**

Deals with corporate financial strategies primarily in the areas of valuation, capital structure, external financing, bankruptcy, mergers and acquisitions. These issues are addressed mostly in the context of case studies that illustrate how ideas studied in introductory finance courses are applied to real-world situations. Prerequisite: BUS 391.

**BUS 400. Graphical User Interface. (4).**

An introductory course to user interface fundamentals. Topics include development methodologies, evaluation techniques, user-interface building tools, considerations in the design phase, identification of design rules and successful delivery of the design. Prerequisite: CSC 220 or CSC 300.

**BUS 410. Database Management Systems. (4).**

Studies the concepts and structures necessary to design and operate a database management system. Topics include data modeling, relational database design and database querying.

**BUS 411. Sports-Related Marketing. (4).**

An introduction to management and marketing issues in the sports industry, with a particular emphasis on major and minor league professional sports. Students will receive a broad overview of the structure of sports and its relationship to the dominant culture, the economy and the media. (cross-listed with COMM 411).

**BUS 418. Business in China and India. (4).**

Students investigate China and India in terms of the macro forces and factors that comprise the business environment in these "big emerging markets." Students work to understand the demographic, economic, socio-cultural, political-legal, technological and natural forces that influence business in China and India. They compare and contrast how business is conducted within the two countries as well as with foreign enterprises, and they assess current and emerging opportunities for business in the region. Through readings, online research, discussions, and case analyses, students learn what appear to be critical factors for business success in China and India.

**BUS 420. White-Collar Crime. (4).**

This course will provide students with a critical examination of white-collar crime and deviance, its impact on society, and what might be done to address this social problem. Cross-listed with CRIM 420.

**BUS 429. Executive Roundtable. (4).**

This course is designed to provide students with an appreciation of how management and finance theory are integrated into the strategies of the modern cooperation.

**BUS 430. Integrated Marketing Communication. (4).**

This course explores the role of communications in marketing management, the strategic integration of promotional tools, and the application of generic IMC concepts in various social and organizational contexts-commercial, non-profit, domestic, and international. Communication trends and technologies are illuminated. The impact of marketing communications on individuals and on society as a whole is critically evaluated. Through readings, discussions, and analyzing cases, students learn how communications objectives are accomplished through carefully chosen combinations of public relations, advertising, sales promotion, personal selling, database and online marketing. Prerequisite: BUS 375 / COMM 375 Principles of Marketing.

**BUS 439. Senior Seminar in Management Thought and Practice. (4).**

The consideration of classic and contemporary writings on issues related to the management of the business enterprise and the role of business in the larger society. Prerequisite: senior standing.

**BUS 440. Marketing Simulations. (4).**

Emphasis is placed on the marketing planning function, consumer identification and buyer behavior, marketing strategies and price-value relationships.

**BUS 442. Advertising Campaigns. (4).**

Advances the principles learned in introductory advertising and marketing courses and includes the application of principles learned through the completion of an actual consumer-oriented marketing/advertising campaign. Includes lecture and lab. Prerequisites: BUS 375, senior standing. (cross-listed with COMM 442).

**BUS 443. Event Planning and Management. (4).**

The study of the theory and practice of various forms of event planning and management. The class will be using a hands-on approach to delve into this wonderful field and will include lessons on budget, décor, entertainment, types, and security issues. (cross-listed with COMM 443).

**BUS 445. Marketing and Management of Services. (4).**

Addresses marketing and management issues related to the service component of products, particularly products which are service-intensive. Topics include understanding the distinctive aspects of services, creating and delivering services, developing and managing the customer service function, balancing demand and supply in a service environment and others.

**BUS 446. Theories and Practice of Leadership. (4).**

Examines leadership from theoretical, historical and practical perspectives. Includes topics of trait, behavioral and contingency theories; the influence process; management vs. leadership, leadership and followership. Survey of leadership theory and research; characteristics of leaders, theories of leadership origins and psychological and social correlates. Interaction of personal and organizational factors in determining leadership effectiveness. (ADEP only).

**BUS 447. Social Marketing. (4).**

Reflecting the needs of social entrepreneurs, NGOs and nonprofit organizations, the course explores the use of marketing to effect behavioral changes for the benefit of individuals, society and the global environment. Social marketing is viewed in various organizational and cultural contexts, both domestic and international. Trends and technologies are critically evaluated. Through reading, discussion and practical application, students learn how social marketing objectives are accomplished through carefully chosen combinations of research, planning, implementation and program evaluation. Prerequisite: BUS 375 / COMM 375.

**BUS 448. Organization Development. (4).**

The study of planned change in organizations including diagnosis of the organization and implementation of organization development interventions. Emphasis on teamwork in organizations and survey development. Prerequisite: senior standing.

**BUS 449. Managerial Leadership: Core Competencies And Skills. (4).**

Focuses on the development of the core competencies and skills needed for effective managerial leadership at all levels of the organization. Each skill component will follow a five-step developmental pedagogy: (1) Assessment, (2) Learning, (3) Analysis, (4) Practice and (5) Application. Prerequisite: senior standing.

**BUS 450. Advanced Public Relations. (4).**

Students strengthen their command of the processes and techniques of public relations and apply them strategically to real-world PR stations. They apply the full process of public relations management, including research and analysis, planning, implementation, and control and evaluation, while producing a strategic PR plan and professional media kit. They role-play crisis communications planning and response in an emergency PR exercise. Ethical considerations in PR management are examined; the impact of current PR practices on individuals and society are critically evaluated. Prerequisite: COMM 342. (cross-listed with COMM 450).

**BUS 451. Cost Accounting - Computer Application. (4).**

Advanced study of the procedures used to determine costs for manufacturing operations. Includes process and differential costing, overhead allocation, profit-volume analysis, joint products and by-products and responsibility accounting. Emphasis is placed on making informed business decisions based on quantifiable data. Prerequisites: BUS 252; junior standing.

**BUS 452. Tax I. (4).**

A study of current federal tax laws and issues as they pertain to the individual taxpayer. Cases are used to provide practical experience in implementation of tax law interpretations; emphasis is placed on the evolution of the philosophy that drives development of the federal tax code. Prerequisite: BUS 251. (offered one semester each year).

**BUS 453. Auditing. (4).**

Covers the legal responsibilities, theory and procedures in the conduct of an audit and the making of an audit report. Prerequisite: BUS 352B. (offered one semester each year).

**BUS 454. Advanced Accounting. (4).**

Accounting for business combinations and the preparation of consolidated financial statements. Also includes accounting for partnerships, consignments, foreign currency translation, fund accounting and international accounting. Prerequisite: BUS 352B. (offered one semester each year).

**BUS 461. Advanced Human Resource Management. (4).**

Studies advanced human resource management problems and practices and is intended for students interested in a professional career as a human resource management specialist. Topics include selection, placement, employee development and employee relations in private and public sector organizations. Prerequisite: BUS 361.

**BUS 462. Tax II. (4).**

A study of tax laws and issues pertaining to business entities such as partnerships, C-corporations and S-corporations. Focuses on the taxation of estates and trusts and expands the study of personal taxation introduced in Tax I. Prerequisite: BUS 452. (offered one semester each year).

**BUS 463. Exporting/Importing. (4).**

Provides a pragmatic overview of the different aspects of importing/exporting and a working knowledge of the various terms and techniques essential to establish and maintain a profitable import/export business in America. Discussions and assignments will include the marketing organization, regulation, terms of access, documentation, shipments and financing involved with the international movement of products.

**BUS 468. Venture Development. (4).**

A study of venture development through entrepreneurship. Designed to help the student discover the opportunities and challenges of operating a business enterprise. The student will apply concepts learned in other business courses to the business operation. Recommended: BUS 391.

**BUS 469. Strategic Management (capstone). (4).**

Complex business cases integrating the fields of marketing, finance, law, accounting, economics and industrial management provide a realistic view of how general managers deal with conceptual business problems. Cases include analysis of strategic, interpersonal business problems. Prerequisite: senior standing; prerequisite/corequisite: BUS 391.

**BUS 472. International Finance. (4).**

Focuses on the financial environment surrounding multinational businesses involved in international trade, investment and financing. Covers management of current assets and liabilities, including foreign financing decisions and techniques, and investigates foreign investment decisions, feasibility analysis and capital budgeting. The course uses problem sets and case studies to reinforce the concepts discussed in class. Prerequisite: BUS 391. Recommended: senior standing.

**BUS 473. Marketing Management. (4).**

Focuses on the effective design and management of the marketing function in a business organization and the development of effective marketing programs. Topics include strategic marketing plans organization and incentive structures for the sales force, product launch, marketing communication and integration with other essential management functions. Prerequisites: BUS 375, senior standing.

**BUS 474. International Marketing. (4).**

An exploration of international marketing conditions with emphasis on foreign market research; trade promotion; political, legal, economic and cultural environments; product and service adaptability; and the development of strategic marketing plans for multinational competition. Prerequisite: BUS 375.

**BUS 475. Investment Analysis and Portfolio Development. (4).**

Provides the necessary background to critically evaluate both the practical and academic literature on investments. Stocks and bonds are addressed in market equilibrium and within the context of portfolio development. The capital asset pricing model, market efficiency and the investment environment are covered. Prerequisite: BUS 391.

**BUS 476. International Business Behavior. (4).**

A review of current organizational development approaches developed in the United States for possible international application. Cultural influences fostering or hindering the development of effective humanistic organizations are explored. Prerequisite: BUS 394 or consent of instructor.

**BUS 477. Personal Financial Planning. (4).**

An in-depth study of personal budgeting and long-term planning, investment opportunities, credit, financial institutions, insurance, risk preferences and goals. Prerequisite: junior standing.

**BUS 478. Pacific Rim/Art of Japanese Management. (4).**

An examination of our international trading partners in the Pacific Rim with special attention to their history, culture and political, economic, business and management systems. Attention is given to an assessment of both American and Japanese approaches to management and slow-growth economies. (cross-listed with POLS 478).

**BUS 479. Advanced Strategic Management. (4).**

Applies the principles of business and industry analysis and strategy formulation to the coming economic battles between Japan, United States and Europe and among the major emerging international trading blocs. Prerequisite: BUS 469.

**BUS 482. Selected Topics. (1-4).****BUS 484. Senior Seminar in Accounting - Capstone. (4).**

The alternative capstone course for B.S. in accounting majors. Includes the history and evolution of the accounting profession with an investigation and critique of current theory. Prerequisite: BUS 454.

**BUS 485. Seminar. (2-4).****BUS 490. Independent Study. (1-4).****BUS 492. Internship. (1-4).****BUS 493. Field Studies. (2).**

## Chemistry

Chemistry. It's the core science: the study of the properties, composition and changes that occur in matter. When you study chemistry, you analyze issues that influence every aspect of life on Earth.

Whether you choose the bachelor of science degree (for those targeting careers in industry or planning to pursue a graduate degree) or the bachelor of arts degree (appropriate for those seeking work in medicine, dentistry or secondary school teaching), CLU's chemistry curriculum provides the knowledge base required of the discipline.

Because of the program's strong emphasis on laboratory experience, our advanced chemistry students are taught how to design and carry out their own experiments and encouraged to work on independent research projects. They also have the opportunity to do supported research with faculty members during the summer. Many students have been accepted to summer research programs at Ph.D.-granting institutions.

The department possesses modern instruments which students use regularly in their classes and research projects. These include:

- Fourier transform infrared and nuclear magnetic resonance spectrometers
- gas chromatographs with several types of detectors
  - mass spectrometer
  - electron capture
  - flame ionization
- rapid-scan UV-vis spectrometer

CLU chemistry students are encouraged to pursue internships and REU programs during the course of their studies. Recent CLU students have interned at Ventura County Crime Lab, Amgen and Rockwell Science Center, and have attended REU programs at Colorado State and SUNY Stonybrook.

These undergraduate research opportunities translate into success for Cal Lutheran's chemistry graduates, who have been accepted into many of the nation's most respected medical, dental, and graduate programs including:

- University of California at
  - San Diego

- Irvine
- Santa Barbara

- Yale University
- Indiana University
- University of Ohio

## Bachelor of Arts in Chemistry

32 credits minimum, 20 credits upper division

CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
CHEM 305/305L	Quantitative Analysis and Quantitative Analysis Lab	4
CHEM 331	Organic Chemistry	4
CHEM 332	Organic Chemistry II	4
CHEM 341	Organic Chemistry Lab	1
CHEM 342	Organic Chemistry II Lab	1
CHEM 485	Capstone Seminar	2
Chemistry Elective Credits (at least 4 Upper Division)		6
Total Hours		32

## Required Supporting Courses

Select one of the following:		8-10
PHYS 201/201L/202/202L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab and Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	
PHYS 211/211L/212/212L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab and Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab	
MATH 251	Calculus I	4
Total Hours		12-14

## Recommended

MATH 252	Calculus II	4
Total Hours		4

## Bachelor of Science in Chemistry

40 Credits minimum, 28 credits upper division

CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
CHEM 305/305L	Quantitative Analysis and Quantitative Analysis Lab	4
CHEM 306/306L	Chemical Instrumentation and Chemical Instrumentation Lab	4
CHEM 331	Organic Chemistry	4
CHEM 332	Organic Chemistry II	4
CHEM 341	Organic Chemistry Lab	1
CHEM 342	Organic Chemistry II Lab	1
CHEM 405/405L	Physical Chemistry and Physical Chemistry Lab	4
CHEM 406/406L	Physical Chemistry and Physical Chemistry Lab	4
CHEM 485	Capstone Seminar	2

Chemistry Elective Credits	2
Total Hours	40

## Required Supporting Courses

MATH 251	Calculus I	4
MATH 252	Calculus II	4
Select one of the following:		8-10
PHYS 201/201L/202/202L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab and Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	
PHYS 211/211L/212/212L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab and Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab	
Total Hours		16-18

## Recommended

CHEM 411	Advanced Inorganic Chemistry	3
MATH 261	Calculus III	4
MATH 265	Differential Equations	4
Total Hours		11

## Minor in Chemistry

CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
Select three courses from chemistry <sup>1</sup>		12
Total Hours		22

<sup>1</sup> Taken in at least two areas of chemistry (200 level or above). CHEM 425 cannot be used to fulfill the minor if it is also being used to fulfill a major requirement.

## Courses

### Lower Division

#### **CHEM 111. Chemistry and the Environment. (4).**

Explores the interface between chemistry and the world we live in, with particular emphasis on environmental issues such as pollution, energy depletion and global warming. The chemical principles required to understand these topics are introduced on an as-needed basis. This course is primarily intended for non-science majors and cannot be used for credit toward a chemistry degree. Lecture, 3 hours/week; Laboratory, 3 hours/week.

#### **CHEM 111L. Chemistry and the Environment Lab. (0).**

#### **CHEM 151. General Chemistry. (4).**

Covers the fundamental theories, principles and laws of chemistry, plus the properties of elements and compounds. Prerequisites: MATH 151: high school chemistry; Math Placement Exam section I score of 14 or better or completion of MATH 110; Corequisite: CHEM 151L.

#### **CHEM 151L. General Chemistry Lab. (1).**

Covers the laboratory techniques and apparatus of chemistry, plus the illustrations of quantitative relationships in chemistry. Includes a systematic course in theory and techniques of inorganic qualitative analysis. Corequisite: CHEM 151L: CHEM 151.

#### **CHEM 152. General Chemistry II. (4).**

Covers the fundamental theories, principles and laws of chemistry, plus the properties of elements and compounds. Prerequisites: CHEM 151: high school chemistry; Math Placement Exam section I score of 14 or better or completion of MATH 110; Corequisite: CHEM 152L.

**CHEM 152L. General Chemistry II Lab. (1).**

Covers the laboratory techniques and apparatus of chemistry, plus the illustrations of quantitative relationships in chemistry. Includes a systematic course in theory and techniques of inorganic qualitative analysis. Corequisite: CHEM 152.

**CHEM 201. Elementary Organic Chemistry. (4).**

An introduction to the study of the aliphatic and aromatic compounds of biochemical interest. Includes fundamentals of organic chemistry for students of biology, nursing, physical education and elementary education. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: CHEM 111 or CHEM 152.

**CHEM 201L. Elementary Organic Chemistry Lab. (0).****Upper Division****CHEM 301. Environmental Chemistry. (4).**

In this course, principles of chemistry will be applied to environmental problems including water, air and soil chemistry and toxicology. Lecture, 3 hours/week; Lab, 3 hours/week. Prerequisite: CHEM 201.

**CHEM 301L. Environmental Chemistry Lab. (0).****CHEM 305. Quantitative Analysis. (4).**

Covers the principles and techniques of gravimetric and volumetric analysis. Lecture, 3 hours/week; Laboratory, 3 hours/week.

**CHEM 305L. Quantitative Analysis Lab. (0).****CHEM 306. Chemical Instrumentation. (4).**

Covers the theories and application of instrumentation in chemistry. Lecture, 2 hours/week; Laboratory, 6 hours/week. Prerequisite: CHEM 305.

**CHEM 306L. Chemical Instrumentation Lab. (0).****CHEM 331. Organic Chemistry. (4).**

Covers the structure, nomenclature, reactions and synthesis of organic compounds, plus the theory and mechanism of organic reactions. Lecture, 4 hours/week.

**CHEM 332. Organic Chemistry II. (4).**

Covers the structure, nomenclature, reactions and synthesis of organic compounds, plus the theory and mechanism of organic reactions. Lecture, 4 hours/week. Prerequisite CHEM 331.

**CHEM 341. Organic Chemistry Lab. (1).**

Laboratory work in isolation, characterization and synthesis of organic compounds. Laboratory, 3 hours/week. Corequisite: CHEM 331.

**CHEM 342. Organic Chemistry II Lab. (1).**

Laboratory work in isolation, characterization and synthesis of organic compounds. Laboratory, 3 hours/week. Corequisite: CHEM 332.

**CHEM 405. Physical Chemistry. (4).**

The study of kinetic theory, structure of condensed phases, thermodynamics, equilibria, electrochemistry, quantum chemistry and chemical kinetics. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: one year each of calculus and physics or consent of instructor.

**CHEM 405L. Physical Chemistry Lab. (0).****CHEM 406. Physical Chemistry. (4).**

The study of kinetic theory, structure of condensed phases, thermodynamics, equilibria, electrochemistry, quantum chemistry and chemical kinetics. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: one year each of calculus and physics or consent of instructor.

**CHEM 406L. Physical Chemistry Lab. (0).****CHEM 411. Advanced Inorganic Chemistry. (3).**

The advanced treatment of special topics in inorganic chemistry, including atomic structure, classification of elements and inorganic reactions in aqueous and non-aqueous solutions. Lecture, 3 hours/week. Prerequisite: consent of instructor. (on demand).

**CHEM 412. Advanced Organic Chemistry. (3).**

Further study in organic chemistry, emphasizing synthesis, reaction mechanisms and stereoisomerism. Lecture, 3 hours/week. Prerequisite: CHEM 332 or consent of instructor. (on demand).

**CHEM 421. Qualitative Organic Analysis. (3).**

The classification, reactions, derivatives and identification of organic compounds. Lecture, 1 hour/week; Laboratory, 6 hours/week. Prerequisite: CHEM 332 and CHEM 342 or consent of instructor. (on demand).

**CHEM 421L. Qualitative Organic Analysis Lab. (0).****CHEM 425. Biochemistry. (3).**

The study of structure, function and metabolism of biomolecules as well as enzyme kinetics, thermodynamics and regulation of metabolic processes. Lecture, 3 hours/week. Prerequisite: CHEM 201 or CHEM 332 or consent of instructor. (cross-listed with BIOL 425).

**CHEM 425L. Biochemistry Lab. (1).**

Selected biochemistry lab techniques, including protein purification, enzyme kinetics, chromatography and electrophoresis. Laboratory, 3 hours/week. Prerequisite: Concurrent enrollment in BIOL 425 / CHEM 425. (cross-listed with BIOL 425L).

**CHEM 461. Chemical Preparations. (2).**

The preparation and purification of selected inorganic or organic compounds; introduces the student to chemical literature and laboratory research methods. Prerequisite: consent of instructor.

**CHEM 482. Selected Topics. (1-4).****CHEM 482L. Selected Topics Lab. (1-4).****CHEM 485. Capstone Seminar. (2).**

Introduces students to the skills and practices required of professional scientists. Students will gain experience with conducting literature searches, conducting and presenting scientific work, reviewing the work of others and writing research proposals. Prerequisite: senior standing.

**CHEM 490. Independent Study. (1-4).****CHEM 492. Internship. (1-4).**

## Communication

What can you do with a communication degree? Job applicants today must have the tools to frame effective messages in a wide variety of media and platforms. To that end, not only does the Communication Department at CLU offer a broad array of mass communication courses but requires that its graduates demonstrate proficiencies in writing, speaking and media production, requires at least one internship, and lays out a unique core curriculum that equips graduates with a background in mass media history, media writing and communication theory. The department boasts an award-winning student newspaper, The Echo, and a campuswide cable radio station and student news program.

A degree in communication with a concentration in advertising and public relations, film and television production or journalism specified on the diploma is the choice of students who wish to specialize in a field. The general communication major, on the other hand, permits students to individualize their degrees, either in order to explore subjects of personal interest or to prepare for a career objective other than the concentration areas.

In addition to regular course work, at least one cooperative education experience or senior project is required of each communication graduate. Many students choose to add a variety of media projects, internships, part-time employment, or field experience to their résumés. CLU students have recently interned in:

- television
  - KADY
  - KNBC
  - CBS
  - Fox Television
  - CNN

- KCAL
- Bunim Murray Productions
- radio
  - KCLU FM
  - KZLA FM
- newspapers
  - Ventura County Star
  - Los Angeles Times
- sports information departments
  - L.A. Clippers
  - L.A. Kings
- marketing departments
  - The Gap
  - Access Hollywood
  - Disney
  - J.D. Power
  - Amgen
  - Capitol Records
  - Warner Brothers

Because of its internship programs, contacts in the professional world and the excellent support of the Career Services Center, the placement rate for CLU communication majors is quite impressive. Recent graduates have taken rewarding jobs in:

- public relations
- human resources
- media market research
- education
- publishing
- radio
- television
- or have entered graduate school.

Students who desire to work as marketing communication department managers, marketing representatives, and trade negotiators for both private corporations and government agencies are directed to the marketing communication degree which appears later in this catalog. CLU marketing communication graduates have gained the ability to research, plan, organize and direct internationally focused marketing campaigns and have acquired the interpersonal skills needed to move into upper management.

## Bachelor of Arts in Communication

40 credits minimum, 24 credits upper division.

### Required Courses

COMM 101	Introduction to Mass Communication	4
COMM 231	Writing for the Mass Media	4
COMM 300	Research Methods	4
COMM 401	Communication Theories-Capstone	4
COMM 490 or COMM 492	Independent Study Internship	1-4
Select one of the following:		4
COMM 342	Public Relations	
COMM 344	Copywriting/Storyboarding in Broadcast Advertising	

COMM 346	Copyediting, Layout and Design	
COMM 348	Website Design and Publishing	
COMM/BUS 375	Principles of Marketing	
COMM/BUS 380	Principles of Advertising	
COMM/BUS 411	Sports-Related Marketing	
COMM/BUS 442	Advertising Campaigns	
COMM/BUS 443	Event Planning and Management	
COMM/BUS 450	Advanced Public Relations	
Select two of the following:		8
COMM 200	Survey of Broadcasting and New Media	
COMM 207	TV Production I	
COMM 208	Beginning Cinema Production	
COMM 304	Radio Industry	
COMM 308	Politics in Cinema	
COMM 309	Advanced Cinema Production	
COMM 404	Broadcast Sports Production	
COMM 405	Freedom of Communication	
COMM 406	Legal Issues & the New Media	
COMM 407	Broadcast News Production	
Select two of the following:		8
COMM 233	Argumentation & Advocacy	
COMM 301	Persuasive Communication Campaigns	
COMM 306	Business and Professional Communication	
COMM 315	Small Group Communication	
COMM 335	Interpersonal Communication	
Select one of the following:		2-4
COMM 307	Screenwriting	
COMM 333	Working on the Echo	
COMM 334	iCLU	
COMM 402	Film Theory (capstone, Film and Television Production Concentration)	
Communication Elective Credits		1-0
Total Hours		40-44

## Advertising/Public Relations Concentration

40 credits minimum, 24 credits upper division.

COMM 101	Introduction to Mass Communication	4
COMM 231	Writing for the Mass Media	4
COMM 300	Research Methods	4
COMM 333	Working on the Echo	2
COMM 342	Public Relations	4
COMM 380	Principles of Advertising	4
COMM 401	Communication Theories-Capstone	4
COMM 490	Independent Study	1-4
or COMM 492	Internship	
Select one of the following:		4
COMM 375	Principles of Marketing	
COMM 411	Sports-Related Marketing	
COMM 442	Advertising Campaigns	
COMM 450	Advanced Public Relations	
Select one of the following:		4
COMM 301	Persuasive Communication Campaigns	
COMM 344	Copywriting/Storyboarding in Broadcast Advertising	
COMM 346	Copyediting, Layout and Design	

COMM 348	Website Design and Publishing	
COMM 443	Event Planning and Management	
Select one of the following:		4
COMM 233	Argumentation & Advocacy	
COMM 306	Business and Professional Communication	
COMM 315	Small Group Communication	
COMM 335	Interpersonal Communication	
COMM 405	Freedom of Communication	
COMM 406	Legal Issues & the New Media	
Communication Elective Credits		1-0
Total Hours		40-42

## Journalism Concentration

40 credits minimum, 24 credits upper division.

COMM 101	Introduction to Mass Communication	4
COMM 231	Writing for the Mass Media	4
COMM 300	Research Methods	4
COMM 333/333	Working on the Echo (two semesters)	4
COMM 401	Communication Theories-Capstone	4
COMM 405	Freedom of Communication	4
COMM 490	Independent Study	1-4
or COMM 492	Internship	
Select one of the following:		4
COMM 333/333	Working on the Echo (two semesters)	
COMM 404	Broadcast Sports Production	
COMM 407	Broadcast News Production	
Select one of the following:		3-4
COMM 346	Copyediting, Layout and Design	
COMM 348	Website Design and Publishing	
ART 380	Computer Graphics	
ART 385	Graphic Design	
Select one of the following:		4
COMM 200	Survey of Broadcasting and New Media	
COMM 233	Argumentation & Advocacy	
COMM 301	Persuasive Communication Campaigns	
COMM 306	Business and Professional Communication	
COMM 335	Interpersonal Communication	
COMM 342	Public Relations	
COMM 406	Legal Issues & the New Media	
Communication Elective Credits		4-0
Total Hours		40

## Film and Television Production Emphasis Concentration

36 credits minimum, 24 credits upper division.

COMM 101	Introduction to Mass Communication	4
COMM 231	Writing for the Mass Media	3-4
or COMM 307	Screenwriting	
COMM 402	Film Theory (capstone, Film and Television Production Concentration)	4
COMM 490	Independent Study	1-4
or COMM 492	Internship	
Select three of the following:		10-12
COMM 207	TV Production I	

COMM 208	Beginning Cinema Production	
COMM 304	Radio Industry	
COMM 309	Advanced Cinema Production	
COMM 334	iCLU	
COMM 404	Broadcast Sports Production	
COMM 407	Broadcast News Production	
MULT 470	High Definition Digital Cinema I for Multimedia	
MULT 471	High Definition Digital Cinema II for Multimedia	
Select one of the following:		3-4
COMM 307	Screenwriting	
COMM 344	Copywriting/Storyboarding in Broadcast Advertising	
COMM 348	Website Design and Publishing	
ART 380	Computer Graphics	
ART 385	Graphic Design	
Select two of the following:		8
COMM 200	Survey of Broadcasting and New Media	
COMM 308	Politics in Cinema	
COMM 406	Legal Issues & the New Media	
COMM 482	Selected Topics (must be approved)	
Communication Elective Credits		3-0
Total Hours		36-40

## Minor in Communication

18 credits, 12 credits upper division.

COMM 101	Introduction to Mass Communication	4
COMM 231	Writing for the Mass Media	4
COMM 401	Communication Theories-Capstone	4
COMM 490	Independent Study	1-4
or COMM 492	Internship	
Additional Communication Credits		5
Total Hours		18-21

## Courses

### Lower Division

#### **COMM 101. Introduction to Mass Communication. (4).**

A preliminary study of communication theory with particular emphasis on mediated communication, including Internet, television, radio, film and print.

#### **COMM 103. Beginning Public Speaking. (3).**

The study of the theory and practice of various forms of oral communication, including informative speaking oral interpretation, small-group communication and persuasion.

#### **COMM 104. Voice Development for Broadcasting, Film And Communication Industries. (4).**

This course will enable students to develop voice acting skills, which can be applied to broadcasting, instructional film, animation, commercials and documentaries. The course will also provide an introduction to the history of the voice acting field and will provide information about professional opportunities. (cross-listed with TA 104).

#### **COMM 161. Beginning Sign Language. (3).**

An introduction to the study of American Sign Language.

**COMM 200. Survey of Broadcasting and New Media. (4).**

A survey of the broadcasting, cable and other broadband media including the Internet; an introduction to the socio-cultural, legal/regulatory, economic, competitive and technological environment, with emphasis on programming, advertising, audience research and other management issues in the context of digitalization of media.

**COMM 207. TV Production I. (4).**

Learn the basics of television production including the operation of the camera, lights and studio equipment. Study the mechanics and techniques of video production. Each student will direct one scene from a television script. Student will learn to mark the script, work with the actors and produce a scene switched live for television.

**COMM 208. Beginning Cinema Production. (4).**

Exploring the cinematic medium in production. The students will learn basic techniques of photography and editing. The class will shoot a group project on film and edit digitally. Each student will also make a short film using Mini DV.

**COMM 221. Popular Culture. (4).**

An introduction to important readings on popular culture from the perspectives of sociology and communication studies. The study of popular culture takes the forms, content, values and norms of popular culture products as data for analysis and critique. Students will focus on mass communication forms of popular culture such as movies, advertisements, television shows, magazines, music and music videos. This course will focus on the period from 1945 to the present. (cross-listed with SOC 221).

**COMM 231. Writing for the Mass Media. (4).**

Instruction and practice in reporting varied news stories for print and electronic media; a writing-intensive introduction to reporting; techniques of interviewing news sources; story structure, consistent/concise editing style with clarity and speed; and writing with accuracy and fairness. Prerequisite: ENGL 111.

**COMM 233. Argumentation & Advocacy. (4).**

The study and practice of argumentation, emphasizing interactive critical thinking skills, including analysis, research and evidence, case construction, refutation, and visual and other forms of symbolic influence; diverse fields of argumentation and advocacy considered including law, politics, organizations, mass media, entertainment, interpersonal, and intercultural relations. (cross-listed with POLS 233).

**COMM 285. Travel Seminar. (1).**

## Upper Division

**COMM 300. Research Methods. (4).**

This course is designed to introduce research methods used in the field of communication and in social science in general. It examines how research is planned & designed, explores both quantitative & qualitative methods, introduces students to processes of data collection & analysis, & gives them experience in conducting original research.

**COMM 301. Persuasive Communication Campaigns. (4).**

A study of the principles of persuasive communication including an analysis of factors influencing persuasion in platform address, advertising argumentation, interpersonal and mediated communication including historical developments in theories applicable to the field and techniques adapted to the Internet. Students learn techniques of planning, implementation and evaluation of commercial, political and social/public service campaigns.

**COMM 304. Radio Industry. (4).**

This class is a broad survey class that covers history, production techniques, times sales, formats, commercial copy, news writing and voice-over. The goal is to prepare the student who desires employment in the radio industry.

**COMM 306. Business and Professional Communication. (4).**

A study of the principles involved in communicating in a professional environment. Includes techniques of interviewing, small-group communication, role playing and exercises designed to improve communication skills. Students have several opportunities for practical application of oral communication principles in simulated settings.

**COMM 307. Screenwriting. (3).**

An introductory course on the craft of writing for feature film. Emphasis is on narrative storytelling for the screen, understanding film grammar and the tools of the screenwriter from basic three-act structure to characterization. In a workshop approach, students will develop their own story premise, treatment, outline and the first draft of their first act screenplay. Orientation is on the commercial film markets as we will be screening many classic and contemporary films as well as reading several screenplays for analysis.

**COMM 308. Politics in Cinema. (4).**

Explores the political nature of cinema and the ways in which political culture, issues and themes are expressed in and through cinema. Particular emphasis is placed on American political culture and practices. (cross-listed with POLS 308).

**COMM 309. Advanced Cinema Production. (4).**

Students will write, produce, direct and edit a 10-20 minute short narrative or documentary film with the purpose of submitting it to student film festivals across the country. Students will attend advanced workshops in editing and lighting. Prerequisite: COMM 207 or COMM 208.

**COMM 311. Intercultural Communication. (4).**

In a multicultural, globalized world made smaller and flatter by high-speed transportation and virtually instantaneous information and communication technologies, the likelihood of direct or mediated contact with people, images and stories from other cultures here and abroad has grown in spectacular fashion. At the same time, our ability to navigate through these cultural contacts has failed to keep pace with the technologies that enable them. In both business and leisure settings, individuals often find themselves faced with different values, customs, practices and material situations that leave them with feelings of cultural incompetence, discomfort and frustration. In some cases, the results may even include hostile conflict at the level of organizations, social institutions, ethnic groups or nations. In almost all cases, intercultural communications, communication across cultures, has failed those involved.

**COMM 315. Small Group Communication. (4).**

A study of the types of group discussion with opportunity for student participation. Special emphasis is placed on an examination of group interaction as it relates to discussion.

**COMM 333. Working on the Echo. (2).**

Practical working experience on the University's student newspaper includes reporting, editing, photography, desktop publishing and business management. May be taken four times for credit. All majors are welcome. Prerequisite: COMM 231.

**COMM 334. iCLU. (2).**

Practical working experience on the University's student-run radio station. May be taken four times for credit. All majors welcome. Prerequisite: Audition, board test and permission of the faculty advisor.

**COMM 335. Interpersonal Communication. (4).**

A study of dyadic communication focusing on real-life contexts. Emphasis on learning about self, romantic/friendship relationships, family, conflict and gender/ethnic dynamics.

**COMM 342. Public Relations. (4).**

The development of public relations theories and practice. Includes principles and methods for audience, media and message analysis; writing for business, industry and nonprofit organizations; and creating and assessing effective forms of public relations and communications. Prerequisite: COMM 231.

**COMM 344. Copywriting/Storyboarding in Broadcast Advertising. (4).**

Designed as a "hands-on" communication and business course, this course provides an overview of broadcast media and develops skills in basic advertising/public relations campaign production techniques including scripting, copywriting and storyboarding. (cross-listed with BUS 344).

**COMM 346. Copyediting, Layout and Design. (4).**

The first half of the course emphasizes not only fundamental rules of grammar, punctuation and spelling but also use of AP style and macrolevel editing issues of clarity, concision, thoroughness and fairness. The second half emphasizes computer-assisted layout and design. Prerequisite: COMM 231.

**COMM 348. Website Design and Publishing. (4).**

Hands-on introduction to designing, creating and uploading Web sites and to finding and evaluating resources and information on the Web. Skills taught include Web site creation in raw HTML, use of tables and frames, inclusion of image and sound, and inclusion of pre-existing Javascripts. No programming experience required, basic familiarity with computers desirable.

**COMM 361. Intermediate Sign Language. (3).**

Continuing studies in American sign language. Prerequisite: COMM 161.

**COMM 375. Principles of Marketing. (4).**

The study of marketing methods and practices. Topics include policies and problems related to consumers, pricing, advertising, management information systems and distribution and management of the marketing function. (cross-listed with BUS 375).

**COMM 380. Principles of Advertising. (4).**

An exploration of advertising from an integrated marketing communications perspective. Focus is on general principles and broad perspectives with particular emphasis on strategy and the role of advertising in an integrated program. Students will examine consumer motivation, planning and development, the creative process and campaign execution and evaluation. (cross-listed with BUS 380).

**COMM 401. Communication Theories-Capstone. (4).**

An advanced study of communication theories based on professional literature. Theories are drawn from a variety of disciplines, including psychology, sociology, linguistics and anthropology, which allow the student to study communication phenomena from a variety of competing and complementary perspectives. Students also study the scientific method and the relationship between theory and research. Course assignments include completion of a major research paper and presentation of portfolio project.

**COMM 402. Film Theory (capstone, Film and Television Production Concentration). (4).**

An advanced study of film theory based on professional literature. The course teaches students to analyze and understand cinema in terms of classical film theories as well as structuralism, semiotics, narrative theory, cognitive theory, feminism, postmodernism and queer theory, among others. Course assignments include completion of a major research paper.

**COMM 404. Broadcast Sports Production. (4).**

The course will teach students to create live and tape-delayed sports broadcasts for CLUTV (Channel 16) and Educational Television for the Conejo Valley (Channel 20). Prerequisites: COMM 207 or COMM 208.

**COMM 405. Freedom of Communication. (4).**

A study of the limits placed on freedom of expression in the United States. Through examining leading U.S. court decisions and relevant statutes, students will learn the broad principles and legal reasoning underlying First Amendment jurisprudence, including the legal, philosophical and political issues entailed in the rights of free expression. Students will then examine how these principles have been applied to the regulation of the various communication industries including the print media, broadcasting and cable television. (cross-listed with POLS 405).

**COMM 406. Legal Issues & the New Media. (4).**

A study of the law and policy governing the various communication industries, including the print media, broadcasting, cable television, direct broadcast satellites and the Internet.

**COMM 407. Broadcast News Production. (4).**

Create live news broadcasts every two weeks for CLUTV (Channel 16) and Educational Television for the Conejo Valley (Channel 20). Learn to write, shoot and edit news stories. In the class, you will be the producer, director and anchor for CLUTV news. Emphasis will be placed on advanced editing skills. Prerequisite: COMM 207 or COMM 208.

**COMM 411. Sports-Related Marketing. (4).**

An introduction to management and marketing issues in the sports industry, with a particular emphasis on major and minor league professional sports. Students will receive a broad overview of the structure of sports and its relationship to the dominant culture, the economy and the media. (cross-listed with BUS 411).

**COMM 442. Advertising Campaigns. (4).**

Advances the principles learned in introductory advertising and marketing courses and includes the application of principles learned through the completion of an actual consumer-oriented marketing/advertising campaign. Includes lecture and lab. Prerequisites: COMM 375 or COMM 380, senior standing. (cross-listed with BUS 442).

**COMM 443. Event Planning and Management. (4).**

The study of the theory and practice of various forms of event planning and management. The class will be using a hands-on approach to delve into this wonderful field and will include lessons on budget, décor, entertainment, types, and security issues. (cross-listed with BUS 443).

**COMM 450. Advanced Public Relations. (4).**

Students strengthen their command of the processes and techniques of public relations and apply them strategically to real-world PR stations. They apply the full process of public relations management, including research and analysis, planning, implementation, and control and evaluation, while producing a strategic PR plan and professional media kit. They role-play crisis communications planning and response in an emergency PR exercise. Ethical considerations in PR management are examined; the impact of current PR practices on individuals and society are critically evaluated. Prerequisite: COMM 342. (cross-listed with BUS 450).

**COMM 461. Advanced Sign Language. (3).**

Advanced studies in American Sign Language. Prerequisite: COMM 361.

**COMM 482. Selected Topics. (1-4).**

**COMM 485. Travel Seminars. (1-4).**

**COMM 490. Independent Study. (1-4).**

This course is used to evaluate a senior project if an appropriate internship is unavailable.

**COMM 492. Internship. (1-4).**

The student finds an internship appropriate to his or her career choice to fulfill the communication requirement. Contracts are available at the Career Services Center. (graded P/NC only).

**COMM 497. Departmental Honors. (1-4).**

## Computer Information Systems

Computer Information Systems (CIS) is a rapid-growth, high-demand area combining studies in computer science and business management. The CIS major, one of two computer-oriented majors at CLU, has been designed to meet the demand for graduates with knowledge of information systems and their application to business environments.

Along with an emphasis on computer applications in software, hardware and programming, CIS majors receive a strong business and liberal arts education. CIS represents a major area in computing, and CLU graduates are prepared for careers in a variety of industries.

Included in the computer science facility are the computer laboratories, a study area for majors, and electronic classrooms with large screen projection systems for lectures, as well as faculty offices. Small classes allow faculty members to provide individualized attention to students and their projects and research. The department also maintains an experimental networking lab, which runs various network operating systems. The department is fully connected to the Internet and every lab PC or workstation has complete Internet access.

CIS graduates are encouraged to participate in internships and major projects offered through numerous research industries located near the University.

CIS graduates have gone on to work at:

- noted research corporations such as:
  - Rockwell International
  - Prudential Insurance
  - J.D. Power & Associates
  - IBM
  - HP
  - Hughes
  - Raytheon
  - Litton Industries
- industries that range from:
  - entertainment
  - banking
  - pharmaceuticals

## Bachelor of Science in Computer Information Systems

48 credits minimum, 40 credits upper division.

CSC 210	Introduction to Computer Programming	4
CSC 331	Systems Analysis	4
CSC 350	Introduction to Data Communications and Networks	4
CSC 410	Database Management Systems	4
CSC 499	Capstone	4
MATH 241	Discrete Mathematics	4
BUS 367	Behavior in Organizations	4
BUS 381	Information, Systems, and Organizational Design	4

Additional Upper Division CSC credits *	16
Total Hours	48

\* 8 credits can be substituted by recommended Business Administration courses.

## Recommended

BUS 361	Human Resource Management	4
BUS 394	International Business	4
BUS 445	Marketing and Management of Services	4
BUS 448	Organization Development	4
BUS 449	Managerial Leadership: Core Competencies And Skills	4
BUS 468	Venture Development	4
BUS 477	Personal Financial Planning	4
ECON 312	Quantitative Analysis in Business	4
Total Hours		32

## Certificate in Information Systems

32 Credits; GPA 2.25 or better.

CSC 210	Introduction to Computer Programming	4
CSC 331	Systems Analysis	4
CSC 350	Introduction to Data Communications and Networks	4
CSC 410	Database Management Systems	4
MATH 241	Discrete Mathematics	4
BUS 367	Behavior in Organizations	4
BUS 381	Information, Systems, and Organizational Design	4
Additional Upper Division credits		4
Total Hours		32

## Minor in Computer Information Systems

20 credits minimum, 12 credits upper division

Computer Science credits		12
BUS 367	Behavior in Organizations	4
BUS 381	Information, Systems, and Organizational Design	4
Total Hours		20

## Courses

### Lower Division

#### CSC 102. Introduction to Computers. (4).

A first course intended for novice computer users that introduces microcomputers, word processing, spreadsheets, selected computer applications software and Internet utilities. In addition, the student learns the proper use of various computer peripherals including diskette drives, mice, keyboards, scanner and advanced digital devices.

#### CSC 110. Concepts of Programming. (4).

Introduction of logic concepts in programming. Breadth approach to essential elements of computer programming. Text based operating systems such as DOS will be discussed. Topics covered are problem solving concepts, computer systems, disk operating systems, computer programming languages, programming fundamentals, testing and debugging, conditions and branching, loops, flowcharts, compound statements, non-compound statements, top-down program design.

**CSC 205. Programming for Scientists. (4).**

This course introduces the principles of computer programming, problem-solving methods, and algorithm development from a scientific perspective. The programming languages covered are C (a compiled language popular among engineers and mathematicians), and Perl (a scripting language popular among bioengineers) both in wide use in scientific fields. Also covered are introductory software engineering techniques and tools necessary to convert a functional specification to a properly functioning program. Examples and assignments will be drawn from the natural sciences. (Cross listed with SCI 205).

**CSC 210. Introduction to Computer Programming. (4).**

First-semester computer programming course. This course introduces the principles of computer science, problem-solving methods and algorithm development using a high-level language. This is a programming class primarily for computer science, computer information systems, mathematics, and science majors. The ability to use a computer is essential. Prerequisites: CSC 110 or permission of instructor, MATH 110 or equivalent.

**CSC 220. Advanced Computer Programming. (4).**

A second-semester computer programming course. This course takes a state-of-the-art approach to software design/development with object-oriented techniques. Topics include algorithm analysis, string processing, internal search/sort methods, complex data structures, design strategies, and code reusability. Prerequisite: CSC 210.

## Upper Division

**CSC 300. Visual Programming. (4).**

Advanced programming course which focuses on the design of visual user-interface in the Windows environment. Topics include basic forms, simple structures, variables, control mechanism, types and expressions, complex data structure, looping, functions, procedures, selections, multiple forms, files and arrays. Prerequisite: CSC 210.

**CSC 310. Algorithms. (4).**

Continues the study of the design and analysis of algorithms, particularly those handling complex data structures and non-numeric processes. Includes an introduction to algorithm design techniques, algorithm verification and the impact of parallel computation on algorithms, operating systems and architectures. A brief introduction is given to artificial intelligence focusing on data representation and heuristic search methods. Prerequisites: CSC 210, MATH 241.

**CSC 315. Object-Oriented Design and Analysis. (4).**

Discusses the features and advantages of an object-oriented approach to problem solving. Topics include abstraction, inheritance, polymorphism, object-oriented design, analysis, implementation and testing. Prerequisites: CSC 210.

**CSC 321. Computer Organization and Architecture. (4).**

Principles of computer organization and architecture are introduced from a layered point of view, beginning at data representation and progressing through the machine language execution cycle. Representative software-hardware tradeoffs in the implementation of various computer system components will be presented. The design and interface to a variety of peripheral devices will also be discussed. The emphasis will be on the hardware aspects of a computer system. Prerequisites: CSC 210, MATH 241.

**CSC 325. Organization of Programming Languages. (4).**

Covers introduction of major language histories, common components, built-in structures, compositions of basic structures, language specification, analysis techniques, runtime behavior, de-facto standards, and future developments. Prerequisites: CSC 210, MATH 241.

**CSC 331. Systems Analysis. (4).**

This is the first course in system engineering that stresses the system development life cycle. Students learn ways of organizing the structure and process of building very large-scale systems that may or may not involve computers. Includes information gathering, design tradeoffs, implementation strategies, product liability, acceptable risk analysis and project follow-up. Prerequisites: CSC 210, MATH 241.

**CSC 332. Introduction to E-Commerce. (4).**

Overview of eCommerce from business aspects to required eCommerce technical skills. A lecture based course with extensive online research for eCommerce information, useful sites, case studies and Web tools. A basic e-Commerce architecture of three tiers such as the front-end tier, the Web server tier and the back-end system tier in Windows NT and Unix. Connectivity to the back-end database system and legacy systems. Security, protection, electronic payment, firewall and proxy. Several Web designing tools and programming skills. The course builds a foundation for students to pursue higher level e-Commerce courses. Prerequisites: CSC 110 or permission of instructor.

**CSC 335. Software Engineering. (4).**

Presents a formal approach to state-of-the-art techniques for software design and development, involving students in a team approach to organizing, managing and developing software. Prerequisites: CSC 210, MATH 241.

**CSC 340. Operating Systems. (4).**

Discusses the major functionality and principles behind all major operating systems tasks, including user interface, hardware sharing among users, data sharing among processes, user protections, resources scheduling among users, multi-user environment, multi-processing and real-time systems. Prerequisites: CSC 210, MATH 241.

**CSC 344. Web Design. (4).**

Studies the backbone of dynamic Web documents. Subjects include Web design standards, and Web-based application programming to make layout, tables, style sheets, templates, libraries, frames and rollovers. HTML and script languages such as Java Scripts, GUI design paint tools and plug-ins are studied in depth. Prerequisites: CSC 210, MATH 241.

**CSC 350. Introduction to Data Communications and Networks. (4).**

Includes discussion of distributed data processing, communication techniques, wide-area and local-area networks, integrated services digital network, open-systems interconnection, security and network management. Prerequisites: CSC 210, MATH 241.

**CSC 355. Client/Server Fundamentals. (4).**

Discusses modern technology in network communication and cooperative computation. Topics include discussion of client/server design concept, software expectation, hardware requirement, service, support and training issues. Prerequisites: CSC 210.

**CSC 360. Computer System Security. (4).**

An introduction of security issues in computer system and data communications, including Data Encryption Standard, public-key systems, digital signatures, ciphers, data compression, data manipulation and supporting techniques. Prerequisites: CSC 210, MATH 241.

**CSC 370. Multimedia Technology. (4).**

Introduces modern multimedia technologies. Topics include basic concepts, principles, sound, image, animation, standards, hardware and software requirements, new technologies, current research and practice, and future directions. Prerequisites: CSC 210, MATH 151.

**CSC 400. Graphical User Interface. (4).**

An introductory course to user interface design fundamentals. Topics include development methodologies, evaluation techniques, user-interface building tools, considerations in the design phase, identification of applicable design rules, and successful delivery of the design. Prerequisite: CSC 210.

**CSC 405. Graphics. (4).**

Review of graphic display architecture and graphic input devices. Coverage includes two- and three-dimensional drawing, viewing, clipping, transformations, shading and data structures for graphics systems. Prerequisites: CSC 210, MATH 241.

**CSC 410. Database Management Systems. (4).**

Studies the concepts and structures necessary to design and operate a database management system. Topics include data modeling, relational database design, and database querying. Prerequisites: CSC 210, MATH 241.

**CSC 412. Bioinformatics-Computational. (4).**

The course introduces commonly used methods for analyzing biological data such as DNA and protein sequences and covers phylogenetic tree construction and 3D folding of biomolecules. It examines bioinformatics algorithms such as sequence search and alignment and its underlying principles and implements simple algorithms using Perl programming language. Prerequisites CSC 110 / CSC 210, & MATH 352 for CS majors. CSC 110 / CSC 210, MATH 352, & BIOL 422 for Biology majors.

**CSC 482. Selected Topics. (1-4).****CSC 490. Independent Study. (1-4).****CSC 492. Internship. (1-4).**

(graded P/NC only).

**CSC 493. Field Study. (2).****CSC 499. Capstone. (4).**

Undergraduate research or development project. The exact nature of the project is negotiated with the sponsoring professor.

# Computer Science

In keeping with the fast-growing computer science industry, Computer Science programs are designed to prepare students for an industrial, business, or governmental career. CLU offers majors and minors in both computer science and computer information systems, and certificates in information technology and information systems.

Included in the computer science facility are the PC laboratories, a study area for majors, and electronic classrooms with large screen projection systems for lectures, as well as faculty offices. Small classes allow faculty members to provide individualized attention to students and their projects and research.

The department also maintains an experimental networking lab, which runs various network operating systems. The department is fully connected to the Internet and every lab PC or workstation has complete Internet access.

CLU computer science graduates often pursue careers that utilize their skills in software and hardware development, programming, computer use in businesses, computer engineering and education.

Graduates of CLU's computer science program are working at:

- Disney
- J.D. Power & Associates
- Teradyne
- Litton Industries
- aerospace contractors
- Big Eight accounting firms.

Computer science students are in demand and CLU's graduates enjoy a high rate of placement in jobs or graduate schools.

CLU also offers a Master of Science in Computer Science and a Five Year BS/MS in Computer Science.

## Bachelor of Science in Computer Science

48 credits minimum, 36 credits upper division

CSC 210	Introduction to Computer Programming	4
CSC 220	Advanced Computer Programming	4
CSC 335	Software Engineering	4
CSC 340	Operating Systems	4
CSC 350	Introduction to Data Communications and Networks	4
CSC 499	Capstone	4
MATH 241	Discrete Mathematics	4
Additional Computer Science credits		20
Total Hours		48

## Recommended supporting courses

ART 380	Computer Graphics	3
ART 480	Advanced Computer Graphics	3
MATH 231	Biostatistics	4
MATH 251	Calculus I	4
MULT 100	Introduction to Multimedia	4
Total Hours		18

## Certificate in Information Technology

32 credits, 20 credits upper division. GPA 2.25 or higher.

CSC 210	Introduction to Computer Programming	4
CSC 220	Advanced Computer Programming	4
CSC 335	Software Engineering	4
CSC 340	Operating Systems	4
CSC 350	Introduction to Data Communications and Networks	4

MATH 241	Discrete Mathematics	4
Additional Upper Division Computer Science Credits		8
Total Hours		32

## Minor in Computer Science

20 credits minimum, 12 credits upper division.

Please note that CSC-210 is the official beginning course for Computer Science and Computer Information Systems majors and minors. To be eligible for registering CSC-210, students are expected to successfully complete CSC110 or pass the CSC110 placement test (passing score is 80/100).

## Five-Year Bachelor of Science/Master of Science Program in Computer Science

The Five-Year B.S./M.S. Computer Science Program is a challenging academic program for our most accomplished students. The program allows participants to obtain both a Bachelor of Science in Computer Science/Computer Information Systems and a Master of Science in Computer Science in five years. Participants are granted conditional admission and allowed to take graduate courses in computer science during their senior year, which can be used toward satisfying their M.S. degree requirements.

### 1. Admission Requirements

- A. Students must submit application by spring semester of the junior year.
- B. Students should complete all General Education requirements by the end of the junior year.
- C. Students should complete at least 40 credits toward the Major Requirements for B.S. in CS/CIS before spring semester of the senior year.
- D. Students who are enrolling in graduate courses must be within 12 credits of completing a B.S. in CS or CIS.
- E. Students' GPA in Computer Science undergraduate courses must be at least 3.2.
- F. Admission is granted or denied before the spring semester of senior year.
- G. All B.S. in CS/CIS requirements must be met by the end of the fourth year, and an application for degree should be filed to receive the B.S. in CS/CIS.
- H. Graduate status is attained after all B.S. requirements have been met.

### 2. Other Program Requirements

- A. During the senior year, students should take 8 units of graduate Computer Science courses.
- B. Graduate courses taken in the senior year will count for graduate credit and can not be used to satisfy the B.S. requirements.
- C. Any graduate courses taken prior to admission into the program can not count toward the M.S.C.S requirements.

## Courses

### Lower Division

#### **CSC 102. Introduction to Computers. (4).**

A first course intended for novice computer users that introduces microcomputers, word processing, spreadsheets, selected computer applications software and Internet utilities. In addition, the student learns the proper use of various computer peripherals including diskette drives, mice, keyboards, scanner and advanced digital devices.

#### **CSC 110. Concepts of Programming. (4).**

Introduction of logic concepts in programming. Breadth approach to essential elements of computer programming. Text based operating systems such as DOS will be discussed. Topics covered are problem solving concepts, computer systems, disk operating systems, computer programming languages, programming fundamentals, testing and debugging, conditions and branching, loops, flowcharts, compound statements, non-compound statements, top-down program design.

#### **CSC 205. Programming for Scientists. (4).**

This course introduces the principles of computer programming, problem-solving methods, and algorithm development from a scientific perspective. The programming languages covered are C (a compiled language popular among engineers and mathematicians), and Perl (a scripting language popular among bioengineers) both in wide use in scientific fields. Also covered are introductory software engineering techniques and tools necessary to convert a functional specification to a properly functioning program. Examples and assignments will be drawn from the natural sciences. (Cross listed with SCI 205).

**CSC 210. Introduction to Computer Programming. (4).**

First-semester computer programming course. This course introduces the principles of computer science, problem-solving methods and algorithm development using a high-level language. This is a programming class primarily for computer science, computer information systems, mathematics, and science majors. The ability to use a computer is essential. Prerequisites: CSC 110 or permission of instructor, MATH 110 or equivalent.

**CSC 220. Advanced Computer Programming. (4).**

A second-semester computer programming course. This course takes a state-of-the-art approach to software design/development with object-oriented techniques. Topics include algorithm analysis, string processing, internal search/sort methods, complex data structures, design strategies, and code reusability. Prerequisite: CSC 210.

## Upper Division

**CSC 300. Visual Programming. (4).**

Advanced programming course which focuses on the design of visual user-interface in the Windows environment. Topics include basic forms, simple structures, variables, control mechanism, types and expressions, complex data structure, looping, functions, procedures, selections, multiple forms, files and arrays. Prerequisite: CSC 210.

**CSC 310. Algorithms. (4).**

Continues the study of the design and analysis of algorithms, particularly those handling complex data structures and non-numeric processes. Includes an introduction to algorithm design techniques, algorithm verification and the impact of parallel computation on algorithms, operating systems and architectures. A brief introduction is given to artificial intelligence focusing on data representation and heuristic search methods. Prerequisites: CSC 210, MATH 241.

**CSC 315. Object-Oriented Design and Analysis. (4).**

Discusses the features and advantages of an object-oriented approach to problem solving. Topics include abstraction, inheritance, polymorphism, object-oriented design, analysis, implementation and testing. Prerequisites: CSC 210.

**CSC 321. Computer Organization and Architecture. (4).**

Principles of computer organization and architecture are introduced from a layered point of view, beginning at data representation and progressing through the machine language execution cycle. Representative software-hardware tradeoffs in the implementation of various computer system components will be presented. The design and interface to a variety of peripheral devices will also be discussed. The emphasis will be on the hardware aspects of a computer system. Prerequisites: CSC 210, MATH 241.

**CSC 325. Organization of Programming Languages. (4).**

Covers introduction of major language histories, common components, built-in structures, compositions of basic structures, language specification, analysis techniques, runtime behavior, de-facto standards, and future developments. Prerequisites: CSC 210, MATH 241.

**CSC 331. Systems Analysis. (4).**

This is the first course in system engineering that stresses the system development life cycle. Students learn ways of organizing the structure and process of building very large-scale systems that may or may not involve computers. Includes information gathering, design tradeoffs, implementation strategies, product liability, acceptable risk analysis and project follow-up. Prerequisites: CSC 210, MATH 241.

**CSC 332. Introduction to E-Commerce. (4).**

Overview of eCommerce from business aspects to required eCommerce technical skills. A lecture based course with extensive online research for eCommerce information, useful sites, case studies and Web tools. A basic e-Commerce architecture of three tiers such as the front-end tier, the Web server tier and the back-end system tier in Windows NT and Unix. Connectivity to the back-end database system and legacy systems. Security, protection, electronic payment, firewall and proxy. Several Web designing tools and programming skills. The course builds a foundation for students to pursue higher level e-Commerce courses. Prerequisites: CSC 110 or permission of instructor.

**CSC 335. Software Engineering. (4).**

Presents a formal approach to state-of-the-art techniques for software design and development, involving students in a team approach to organizing, managing and developing software. Prerequisites: CSC 210, MATH 241.

**CSC 340. Operating Systems. (4).**

Discusses the major functionality and principles behind all major operating systems tasks, including user interface, hardware sharing among users, data sharing among processes, user protections, resources scheduling among users, multi-user environment, multi-processing and real-time systems. Prerequisites: CSC 210, MATH 241.

**CSC 344. Web Design. (4).**

Studies the backbone of dynamic Web documents. Subjects include Web design standards, and Web-based application programming to make layout, tables, style sheets, templates, libraries, frames and rollovers. HTML and script languages such as Java Scripts, GUI design paint tools and plug-ins are studied in depth. Prerequisites: CSC 210, MATH 241.

**CSC 350. Introduction to Data Communications and Networks. (4).**

Includes discussion of distributed data processing, communication techniques, wide-area and local-area networks, integrated services digital network, open-systems interconnection, security and network management. Prerequisites: CSC 210, MATH 241.

**CSC 355. Client/Server Fundamentals. (4).**

Discusses modern technology in network communication and cooperative computation. Topics include discussion of client/server design concept, software expectation, hardware requirement, service, support and training issues. Prerequisites: CSC 210.

**CSC 360. Computer System Security. (4).**

An introduction of security issues in computer system and data communications, including Data Encryption Standard, public-key systems, digital signatures, ciphers, data compression, data manipulation and supporting techniques. Prerequisites: CSC 210, MATH 241.

**CSC 370. Multimedia Technology. (4).**

Introduces modern multimedia technologies. Topics include basic concepts, principles, sound, image, animation, standards, hardware and software requirements, new technologies, current research and practice, and future directions. Prerequisites: CSC 210, MATH 151.

**CSC 400. Graphical User Interface. (4).**

An introductory course to user interface design fundamentals. Topics include development methodologies, evaluation techniques, user-interface building tools, considerations in the design phase, identification of applicable design rules, and successful delivery of the design. Prerequisite: CSC 210.

**CSC 405. Graphics. (4).**

Review of graphic display architecture and graphic input devices. Coverage includes two- and three-dimensional drawing, viewing, clipping, transformations, shading and data structures for graphics systems. Prerequisites: CSC 210, MATH 241.

**CSC 410. Database Management Systems. (4).**

Studies the concepts and structures necessary to design and operate a database management system. Topics include data modeling, relational database design, and database querying. Prerequisites: CSC 210, MATH 241.

**CSC 412. Bioinformatics-Computational. (4).**

The course introduces commonly used methods for analyzing biological data such as DNA and protein sequences and covers phylogenetic tree construction and 3D folding of biomolecules. It examines bioinformatics algorithms such as sequence search and alignment and its underlying principles and implements simple algorithms using Perl programming language. Prerequisites CSC 110 / CSC 210, & MATH 352 for CS majors. CSC 110 / CSC 210, MATH 352, & BIOL 422 for Biology majors.

**CSC 482. Selected Topics. (1-4).****CSC 490. Independent Study. (1-4).****CSC 492. Internship. (1-4).**

(graded P/NC only).

**CSC 493. Field Study. (2).****CSC 499. Capstone. (4).**

Undergraduate research or development project. The exact nature of the project is negotiated with the sponsoring professor.

## Criminal Justice

The purpose of a criminal justice major within a liberal arts university is to develop in students the knowledge, values and ethical consciousness that are essential to becoming responsible leaders in criminal justice and related human services vocations.

The major offers broad foundational courses drawing upon sociology, political science, psychology, management, public policy, criminology and law. The departmental curriculum integrates the relevant multidisciplinary theory to provide a foundation for understanding contemporary criminal justice

theory and practice. Through a combination of course work, internships and special research projects, graduates are prepared to enter a wide variety of vocations including public law enforcement and corrections agencies or to pursue graduate study in law, judicial administration, and other professions.

## Bachelor of Science in Criminal Justice

42 credits minimum, 24 upper division. Criminal justice majors are required to complete an internship in a criminal justice agency or related area in their junior or senior year. (graded P/NC only)

CRIM 101	Introduction to Criminal Justice	4
CRIM 276	Criminal and Procedural Law	4
CRIM 335	Criminology	4
CRIM 412	Methods of Research and Statistics	4
CRIM 460	Senior Seminar: Criminal Justice Philosophy and Practice	4
CRIM 492	Internship	2-4
Select five of the following:		20
CRIM 320	Critical Issues in Policing	
CRIM 330	Contemporary Corrections	
CRIM 340	Violence & Victimization	
CRIM 341	Criminal Psychology	
CRIM 350	Juvenile Delinquency	
CRIM 370	Deviance in U.S. Society	
CRIM 404	Constitutional Law in Criminal Justice	
CRIM 410	Substance Abuse	
CRIM 430	Race, Ethnicity, Gender, and Crime	
CRIM 440	Terrorism	
CRIM 482	Selected Topics	
CRIM 490	Independent Study	
Total Hours		42-44

## Courses

### Lower Division

#### **CRIM 101. Introduction to Criminal Justice. (4).**

Introduces the student to the fundamental concepts, institutions, and formal and informal structures of American criminal justice. Includes a description and analysis of standard measures of criminal justice activity, crime reduction strategies and contemporary suggestions for improving criminal justice.

#### **CRIM 105. Introduction to Law and Legal Process. (4).**

Provides a critical understanding of the historical and philosophical foundations of law; topics include sources of legal tradition, the impact of law on society, judicial decision-making, and legal restraints and impediments. The course will familiarize students with electronic legal sources. Required for the Legal Studies minor, not required for the Criminal Justice major. (Cross-listed with POLS 105).

#### **CRIM 276. Criminal and Procedural Law. (4).**

A study of the concepts of criminal and procedural law as a social force; the historical development of law and constitutional provisions, legal definitions, classification of crime, case law and methodology of the study of law.

### Upper Division

#### **CRIM 320. Critical Issues in Policing. (4).**

Examines the social, legal and political issues affecting policing in a democratic society, including police accountability, responsibility, community policing, individual and organizational deviance, civil liability and the role of technology. Students analyze contemporary research as related to the police role.

#### **CRIM 330. Contemporary Corrections. (4).**

Examines current correctional practices (diversion, community supervision, institutionalization and special problems confronting correctional efforts) in light of historical, philosophical and social developments.

**CRIM 335. Criminology. (4).**

The analysis of the nature, causes and distribution of crime, with an emphasis on the relationship between theoretical explanations of crime and contemporary social responses. Contemporary research supporting crime control/prevention efforts is examined. Prerequisite: CRIM 101 or permission of instructor.

**CRIM 340. Violence & Victimization. (4).**

Victimology addresses the sources of violence, the relationships between victims and offenders, the interactions between victims and the criminal justice system, and the social, legal and institutional responses to violence and victimization. There is specific focus on the victims of violent crimes such as spousal abuse, workplace violence, predatory crime, and terrorism. Prerequisite: junior standing or permission of instructor.

**CRIM 341. Criminal Psychology. (4).**

Students examine theory, research, law and case studies to gain an understanding of the behavior of violent offenders. Research into biological, psychological and social causes is examined and evaluated. Additional topics include the role of the forensic psychologist, the science of profiling and the definitions and use of the insanity defense. Prerequisite: CRIM 101, junior standing or permission of instructor. (cross-listed with PSYC 341).

**CRIM 350. Juvenile Delinquency. (4).**

A study of the social and psychological factors contributing to juvenile delinquency and the societal and governmental attempts to prevent and control individual delinquent behavior. The role of the juvenile court and common intervention strategies are also examined.

**CRIM 355. Family Violence. (4).**

This course examines the ramifications of family violence as well as the broad issues surrounding domestic violence from an interdisciplinary perspective. Violence against women typologies and theories such as cycle of violence, dominance and control are among the sociological and psychological perspectives covered and crimes such as battering, sexual assault, child abuse, and elder abuse are analyzed in a broad social and political context. The legal perspectives on proactive arrest policies, restraining orders, and anti-stalking legislation that have emerged across the United States also are examined. Special attention is given to how these crimes affect women, men, children, and elders, and how the criminal justice system may better address the needs of victims and offenders. Prerequisite: Junior standing or permission of instructor.

**CRIM 370. Deviance in U.S. Society. (4).**

Introduces students to sociological concepts of deviance, social control, social power, and identity construction/management. Focusing on the topic of deviance, an explanation of how groups of people have the power to shape and apply social definitions of "normalcy" and "morality" will provide an analytical lens through which to look at the consequences for those labeled as "deviant." Minimum of sophomore standing. (cross-listed with SOC 370).

**CRIM 404. Constitutional Law in Criminal Justice. (4).**

Emphasizes Supreme Court decisions and constitutional issues relevant to the Fourth, Fifth, Sixth, Eighth and Fourteenth amendments. Students are expected to research and present cases from the text and other legal sources. Prerequisite: junior standing or permission of instructor. (cross-listed with POLS 404).

**CRIM 410. Substance Abuse. (4).**

An overview of drug use in a historical and social context, primarily in the United States. The course covers alcohol and other controlled substances, paying particular attention to the implications of past and current drug use practices and policies for criminal justice agencies. Prerequisites: CRIM 101 and junior standing.

**CRIM 412. Methods of Research and Statistics. (4).**

The study of the major methods of research used in social inquiry. Emphasis is on the use of social surveys, qualitative interviews, data analysis and interpretation. The students will also make use of the computer by applying statistical software to data entry and analysis, finding patterns in the data, testing hypotheses and presenting findings using tables and graphs. Prerequisites: CRIM 101 and junior standing.

**CRIM 420. White-Collar Crime. (4).**

This course will provide students with a critical examination of white-collar crime and deviance, its impact on society, and what might be done to address this social problem. Cross-listed with BUS 420.

**CRIM 430. Race, Ethnicity, Gender, and Crime. (4).**

This course critically examines the impact of race, ethnicity, and gender on crime and how the criminal justice system operates within these contexts. Also examines the impact of perception, stigmatization, theory, law and social policy on minorities and women as offenders, victims, and practitioners.

**CRIM 440. Terrorism. (4).**

The course focuses on the violence of terrorism and the strategic uses and justification of violence in political and religious life. The course explores the ideology and methods of terrorism by and against governments. An examination of legal and extralegal policies designed to counter terrorism are explored. Prerequisites: CRIM 101 and junior standing or permission of instructor. (cross-listed with POLS 440).

**CRIM 445. Legal Reasoning. (4).**

This course is designed for junior and senior students interested in law school, graduate school in public policy, or any profession touched by the law. (cross-listed with POLS 445).

**CRIM 460. Senior Seminar: Criminal Justice Philosophy and Practice. (4).**

A social, political, legal and philosophical examination of contemporary criminal justice policy. Includes analysis of ethical issues confronting the police, courts and corrections and their impact on criminal justice practitioners, clients and the public. Prerequisites: senior standing, completion of all required major courses.

**CRIM 482. Selected Topics. (1-4).****CRIM 490. Independent Study. (1-4).****CRIM 492. Internship. (2-4).**

Criminal justice majors are required to complete an internship in a criminal justice agency or related area in their junior or senior year. (graded P/NC only).

## Economics

California Lutheran University's bachelor of arts degree program in economics prepares students for a variety of careers by offering a strong background in liberal arts and social science studies as well as in all aspects of business.

Economics majors will take a sampling of business courses including principles of marketing, finance, organizational behavior, career development, accounting and statistics. Advanced courses within the economics curriculum include the history of economic thought, macro-economics, price theory, international economics and research methods. Students are encouraged to work in internships and on independent projects in order to combine course work with hands-on experience in the world of economics.

Along with many other opportunities, economics majors have access to the University's Economic Research Center which gathers economic data for Ventura County and parts of Los Angeles County. CLU students participate in and contribute to the formulation and gathering of the data.

Economics graduates may take many career paths, including careers in banking and finance, economic and demographic research and forecasting, and urban planning.

The CLU School of Business also offers graduate courses leading to the master of business administration.

See Business Administration (p. ) for faculty listing.

## Bachelor of Arts in Economics

41 credits minimum, 20 credits upper division.

Select one of the following:

ECON 203/203L	General Economics and General Economics Lab	5-6
ECON 200/201	Introduction to Micro-Economics and Introduction to MacRo-Economics	
MATH 245	Applied Calculus	4
ECON 311	Statistical Methods	4
ECON 406	Intermediate Macro-Economics	4
ECON 411	Intermediate Microeconomics	4
ECON 445	Research Methods - Capstone	4
ECON 450	Econometrics	4

Select three of the following:

ECON 206	Economic Systems and Society	12
ECON 301	Labor Economics	
ECON 312	Quantitative Analysis in Business	
ECON 313	Comparative Economic Systems	
ECON 321	Money and Banking and Capital Markets	
ECON 341	History of Economic Thought	
ECON 414	Economics of the Environment	
ECON 416	International Economics	

ECON 420	Economic Entrepreneurship	
ECON 421	Advanced Statistics	
ECON 460	Economic Development	
BUS 391	Principles of Finance	
MATH 471	Mathematical Modeling	
Total Hours		41-42

## Honors in Economics

Students must have a GPA of 3.7 or higher by the end of their junior year after completing at least 75 credits in their study toward a BA in Economics, all lower division courses in the major, and a total of 20 upper division credits toward their major. Those who are qualified to pursue an Honors Degree in Economics will take 8 credits: ECON 445 and ECON 497 , Honors Thesis.

## Minor in Economics

20 credits minimum in Business Administration and Economics, 16 credits upper division.

BUS 251	Principles of Accounting	4
ECON 311	Statistical Methods	4
Additional Upper Division ECON credits		12
Total Hours		20

## Required Supporting Course

ECON 203/203L	General Economics and General Economics Lab	5
Total Hours		5

## Courses

### Lower Division

#### **ECON 200. Introduction to Micro-Economics. (3).**

The study of principles of economics on the firm level, including resource pricing and allocation, market structures, supply and demand. (offered one semester each year).

#### **ECON 201. Introduction to MacRo-Economics. (3).**

The study of principles of economics on the national level, including the role of government and business, national income, employment, and monetary and fiscal policy.

#### **ECON 203. General Economics. (5).**

Provides a basic understanding of how economic decisions are made by individual economic agents ("micro") and within the context of large ("macro") economic systems. The course is comprised of three major sections: basic economic concepts, micro-economics and macro-economics.

#### **ECON 203L. General Economics Lab. (0).**

#### **ECON 206. Economic Systems and Society. (4).**

Examines the approaches of capitalist, socialist and communist societies in the development of economic systems and the formulation of governmental economic policies. Emphasis is placed on the ways in which nations attempt to use economic forces to achieve such social objectives as health care, education and social stability.

#### **ECON 282. Selected Topics. (1-4).**

### Upper Division

#### **ECON 301. Labor Economics. (3).**

The study of the theories of wages and employment, the history and economics of the labor movement and the economics of the labor market, collective bargaining and trade unionism. Prerequisite: ECON 203.

**ECON 311. Statistical Methods. (4).**

The basic methods in analysis of central tendency, dispersion and probability distributions. Prerequisite: MATH 115 or equivalent.

**ECON 312. Quantitative Analysis in Business. (4).**

An introduction to quantitative decision making from a managerial standpoint, plus the formulation and solution of decision models under certainty and uncertainty. Topics include model building, linear programming, probability, Bayesian decision theory and simulation. Prerequisite: ECON 311.

**ECON 313. Comparative Economic Systems. (4).**

A comparative study of the economic goals, theories of economic organization, institutions and development processes in individual nations and the reorganized multinational economic entities. Prerequisite: ECON 203.

**ECON 321. Money and Banking and Capital Markets. (4).**

The study of modern monetary theories and the principles of banking, with special emphasis on the Federal Reserve System. Prerequisite: ECON 203.

**ECON 341. History of Economic Thought. (4).**

A study of economic theories from Aristotle to modern times. Special attention is given to the period from Adam Smith's Wealth of Nations to Keynes' General Theory and to emerging theories of the management of the economics of non-democratic societies. Prerequisite: ECON 203.

**ECON 406. Intermediate Macro-Economics. (4).**

The study of Keynesian economics, concepts and theories of national income, stability and full employment, rate of interest and investment, including macro-economic models. Prerequisite: ECON 203.

**ECON 411. Intermediate Microeconomics. (4).**

A study of the modern theory of price and the laws of supply and demand. Includes price and output determination and optimal resource allocation in different market situations and in centrally managed versus free-market economies. Prerequisite: ECON 203.

**ECON 414. Economics of the Environment. (4).**

Students investigate, in economic terms, various environmental problems in today's world to determine the costs and benefits of alternative approaches to environmental remediation. Also examines major policy alternatives for environmental protection. Prerequisite: ECON 203.

**ECON 416. International Economics. (4).**

Includes theories of international trade and finance, comparative advantage, foreign exchange, capital movements and the impact of international currency speculation on economic performance. Prerequisite: ECON 203.

**ECON 420. Economic Entrepreneurship. (4).**

A study of the entrepreneurial approach to business development that covers venture initiation and management. Consideration is given to concept development and marketing for business plan formulation. Recommended prerequisites: BUS 252, junior standing.

**ECON 421. Advanced Statistics. (4).**

Decision making using estimation techniques and tests of hypotheses and the use of advanced statistical techniques in solving problems of prediction. Prerequisite: ECON 312.

**ECON 445. Research Methods - Capstone. (4).**

Focuses on the application of scientific research methods to problems in marketing, management and business economics. Topics include research design and methods, sample size and sampling techniques, questionnaire design and data analysis and interpretation.

**ECON 450. Econometrics. (4).**

Econometrics is concerned with how to learn from economic data. Econometric techniques are increasingly used in business, government and academic setting to analyze markets, create forecasts based on past data, study the impact of economic policies, and test economic theories. The objective of this course is to provide the necessary tools to critically evaluate econometric models and to prepare students for empirical work in economics. The course will focus in some details on the linear regression model and the statistical theory behind it. Students will be provided with the opportunity to use actual economic data. Prerequisite: ECON 311.

**ECON 460. Economic Development. (4).**

A study of the theory and application of economic development to Third World countries. Consideration is given to the effect of the policies of major multinational economic institutions on developing economies. Prerequisite: ECON 203.

**ECON 482. Selected Topics. (1-4).****ECON 490. Independent Study. (1-4).**

**ECON 492. Internship. (1-4).**

**ECON 497. Honors Thesis. (4).**

## Education

(non major/minor)

### Elementary Teachers (Undergraduate)

See Liberal Studies (p. 192)

Prospective elementary school teachers are able to begin their preparation at CLU by majoring in Liberal Studies. The program provides students with the educational breadth and depth necessary to enter teacher credentialing programs at the graduate level and eventually teach in today's K-12 classroom. A collaborative endeavor between the College of Arts and Sciences and the Graduate School of Education, the Liberal Studies program requires that students take courses from ten departments including English, Math, Science, History, Philosophy, Physical Education, Music, Art, Theatre Arts and Education. Most of the required courses are designed with the prospective elementary teacher in mind. Students also engage in in-depth study in a selected discipline as part of the program. The Liberal Studies major provides students with approximately 200 hours of field work in local school where students are able to apply skills and strategies acquired in their studies. Our students are introduced to California's Teacher Performance Expectations and leave our program well equipped with the knowledge and experience necessary for success in graduate level teacher education.

### Secondary Teachers (Undergraduate)

Prospective secondary school teachers are able to begin their preparation at CLU by majoring in the subject matter they want to teach (Math, Natural Sciences, Social Sciences, English, Exercise Science, Foreign Languages, Music and Art). The program provides students with the educational breadth and depth necessary to enter teacher credentialing programs at the graduate level and eventually teach in today's 7-12 classroom.

### Graduate Programs/Credential Programs

See Graduate School of Education (<http://catalog.callutheran.edu/grad/graduateschoolofeducation>)

## Courses

### Lower Division

**EDUC 282. Research Methods. (3).**

### Upper Division

**EDUC 362. Career Decisions in Education. (3).**

An introduction to the teaching profession. Students who are considering a career in the field of education will become acquainted with the many facets of the teaching profession. Fieldwork in an educational setting is required.

**EDUC 401. Health Issues in Education. (1).**

Covers information about and symptoms of users of abused drugs, prevention and intervention strategies for dealing with drug users and curriculum for prevention in grades K-12. Study of nutrition is included. Meets state requirements for professional clear teaching credential. (graded P/NC only).

**EDUC 440. Creative Dramatics for Children and Youth. (3).**

Surveys the techniques and resources for children to express themselves through informal dramatics within the classroom or recreational situation. (cross-listed with TA 440).

**EDUC 482. Selected Topics. (1-4).**

**EDUC 490. Independent Study. (1-4).**

**EDUC 492. Internship. (1-4).**

(graded P/NC only).

# English

CLU's English majors and minors are given access to an extraordinary doorway—one that opens into a realm of life-long career opportunities and creative expression.

In a wide variety of challenging and engaging courses, the English curriculum sharpens critical thinking, reading, and communication skills and promotes an appreciation for literature. English is an ideal major for students interested in careers that require these skills. Many businesses and professional schools even prefer the well-rounded training of an English major to the specialized focus of a pre-professional major. In fact, our majors enter a broad range of fields that include:

- creative or technical writing
- law
- business leadership
- nonprofit development
- political advocacy
- publishing and content development
- public relations
- marketing and advertising
- film and new media
- the ministry
- library and information science
- teaching.

For those considering a career in education, the department offers a major tailored for the California single-subject credential. The department also offers a writing concentration for students who want to pursue an MFA or a career in professional writing.

CLU's English department faculty maintain a high level of instructional integrity, involve themselves with their students in freshman writing through upper division courses, and encourage students to present their research at local, regional, and national undergraduate conferences.

English majors can submit written work to CLU's newspaper, The Echo, the Kairos yearbook, the award-winning literary magazine, Morning Glory, and to Sigma Tau Delta, an international English honor society. Majors can compete for the following paid positions:

- departmental assistants
- Writing Center tutors
- Editor-in-Chief or Assistant Editor of Morning Glory
- Academic Advising and Learning Resource Center tutors.

These appointments give students a chance to build their teaching and leadership skills and gain insight into the learning process.

## Bachelor of Arts in English

Students should consult with their advisors to identify the courses appropriate for their goals.

### Option 1

32 credits beyond ENGL 111, at least 24 credits of which must be upper division.

ENGL 201	Introduction to Literary Study	4
ENGL 202	Introduction to Creative Writing	4
ENGL 301	Academic Research and Writing	4
ENGL 314	English Language and Linguistics	4
Any three of the following four sequenced courses:		12
ENGL 323	English Literature I	
ENGL 324	English Literature II	
ENGL 325	American Literature I	
ENGL 326	American Literature II	
ENGL 452	Shakespeare	4

ENGL 480	English Major Capstone Colloquium <sup>1</sup>	2
Total Hours		34

<sup>1</sup> To fulfill the integrated studies requirement of Core- 21, all senior English majors are required to take the Capstone Course ENGL 480 in the form of a two-unit seminar, which culminates in the completion of a senior project. ENGL 301 is a prerequisite for ENGL 480.

## Option 2

Contract Major - 32 credits beyond ENGL 111 as a minimum, at least 24 credits of which must be upper division.

ENGL 301	Academic Research and Writing	4
ENGL 480	English Major Capstone Colloquium	2
Specific Program of courses <sup>1</sup>		26
Total Hours		32

<sup>1</sup> A specific program of courses are developed and justified with the advice and consent of an advisor in the department, and must be approved by the department chair.

## Writing Concentration

Fulfillment of Option 1 or Option 2		32
Select four of the following: <sup>1</sup>		15-16
ENGL 302	Creative Writing: Fiction	
ENGL 303	Creative Writing-Poetry	
ENGL 304	Creative Nonfiction Writing	
ENGL 305	Playwriting	
ENGL 306	Visual and Non-Linear Storytelling	
ENGL 307	Professional Writing	
Total Hours		47-48

<sup>1</sup> Majors may take writing courses from this series as part of the fulfillment of both their major requirements and their writing concentration.

## English Subject Matter Credential

Students interested in the teaching of English should confer with the chair of the English Department for information about the English subject matter program. (See Education)

## Minor in English

20 credits beyond ENGL 111 , 12 credits of which must be upper division. Students are encouraged to design their own minor to suit their intellectual and/or professional interests (with advisor consent and department chair approval).

Students who intend to teach at a secondary level and who want an English minor are advised to take the following courses:

ENGL 312	The Teaching of Writing	3
ENGL 314	English Language and Linguistics	4
ENGL 323	English Literature I	4
or ENGL 324	English Literature II	
ENGL 325	American Literature I	4
or ENGL 326	American Literature II	
Elective Courses		5
Total Hours		20

## Courses

### Lower Division

#### **ENGL 101. Composition. (3).**

An introduction to college level writing with an emphasis on analyzing source materials, understanding rhetorical strategies, and crafting well-organized, well-argued, grammatically correct papers. This course is required for selected students as a prerequisite for ENGL 111.

#### **ENGL 101I. Composition for International Students. (3).**

An introduction to college level writing in the American system for international students only. This course emphasizes the skills needed to draft academic papers, including analyzing source materials, understanding rhetorical strategies, developing arguments, and mastering writing conventions.

#### **ENGL 111. Critical Reading and Writing. (3).**

Practice in the writing and revision of college level prose through the intensive study of interesting subject matter. Topics from recent sections of this course include Immigrant Narratives, Economics and Business themes in Literature, and the Vietnam War in Literature. Because English 111 is a foundational course for college-level writing, a prerequisite for all other English courses, and a requirement for graduation, it should be taken during the first year of enrollment.

#### **ENGL 115. Humanities Tutorial. (4).**

The year-long Humanities Tutorial begins with an in-depth, one-semester study of the origins of Western culture in Greek literature and philosophy. The second semester continues with a study of contemporary themes and concerns both in Western and Non-Western thought. In addition to providing practice in the skills of analysis, argument, and critical and reflective interpretation, the course aims to familiarize students with the intellectual ideal of illuminating the new by understanding the old (cross-listed with PHIL 115 and HNRS 115).

#### **ENGL 201. Introduction to Literary Study. (4).**

This course familiarizes students with three primary genres of literature - the short story, drama, and poetry - and introduces the basic terms and skills necessary to conduct sound literary analysis. The various elements of literature and strategies of analysis are defined, drawing on literary example both famous and contemporary. Students will begin to understand and appreciate literature as scholars do, rather than as casual readers.

#### **ENGL 202. Introduction to Creative Writing. (4).**

English 202 explores the creative literary genres through reading, responding to, and writing poetry, fiction, nonfiction and drama. Students will develop their creative writing skills by practicing imagery, metaphor, voice, character, setting, and narrative, and cultivate a greater awareness of language and literary traditions, conventions, and innovations.

#### **ENGL 211. Classical Literature. (4).**

This course may include works from ancient Greek and Roman literatures and other literatures that draw heavily from classical traditions (Maximum class size 20). Prerequisite: ENGL 111.

#### **ENGL 213. Literature of the Americas. (4).**

The course focuses on works from one or more of the many literatures of the North American hemisphere: Canadian, Caribbean, Native American, Central American, or any of the many immigrant literatures of the United States. Prerequisite: ENGL 111.

#### **ENGL 214. Contemporary American Authors. (4).**

An introduction to selected U.S. writers whose works help us understand ourselves culturally, socially, and intellectually in relation to our contemporary world. Prerequisite: ENGL 111.

#### **ENGL 216. Environmental Literature. (4).**

This course explores environmental writing across a range of genres: the essay, memoir, fiction, drama, and poetry. The course may focus on literature in relation to one or more environmental movements or issues such as deep ecology, wildlife management, or environmental justice. Prerequisite: ENGL 111.

#### **ENGL 260. Topics in World Literature. (4).**

An introduction to the literary traditions of one or more world cultures. Examples of course topics include Contemporary Chinese Literature, India in Fiction and Film, and the Literatures of the Pacific Rim. Prerequisite: ENGL 111 (cross-listed with PHIL 260).

#### **ENGL 282. Selected Topics. (4).**

**ENGL 285. Travel Seminar: Literature in New England. (1).**

This travel course examines some of the most influential and engaging works of American literature and includes travel to the states in which they were written. Different semesters may feature different readings and itineraries. Examples include Boston in Literature; and Thoreau, Emerson, and Hawthorne in Massachusetts. The course meets regularly during the semester and concludes with travel during winter break or late May. The travel portion of this course entails additional costs. Prerequisite: ENGL 111.

## Upper Division

**ENGL 301. Academic Research and Writing. (4).**

This academic research and writing workshop in literary studies is a prerequisite for ENGL 480, the Major Capstone Colloquium. ENGL 301 focuses on research techniques, text analysis, and the synthesizing of literary scholarship and effective argumentative writing in the discipline. May include field trips to UC Santa Barbara, UCLA, and the Huntington Library. Recommended for sophomore English majors, this course must be taken by majors before the first semester of their senior year. Prerequisite: ENGL 111 and instructor approval.

**ENGL 302. Creative Writing: Fiction. (4).**

Fiction writing workshop with an emphasis on skills: crafting plot, developing character, and evoking setting. Students will complete one or more short stories. Prerequisite: ENGL 111.

**ENGL 303. Creative Writing-Poetry. (4).**

Poetry writing workshop with an emphasis on understanding and developing skills: syntax, diction, rhythm, rhyme, and meter. Students will complete a portfolio of poems. Prerequisite: ENGL 111. Recommended: ENGL 201.

**ENGL 304. Creative Nonfiction Writing. (4).**

This nonfiction writing workshop emphasizes the combining of skills traditionally learned in fiction writing with those of nonfiction genres. Students will complete well researched special topic essays, memoirs, and autobiographical reflections. Prerequisite: ENGL 111.

**ENGL 305. Playwriting. (4).**

This workshop course focuses on basic playwriting skills, with an emphasis on mastering plot, character, and dialogue development. Students will write and revise an original piece (cross-listed with TA 305). Prerequisite: ENGL 111. Recommended: ENGL 201.

**ENGL 306. Visual and Non-Linear Storytelling. (4).**

This workshop course focuses on writing for visual and new media, including the screen, television, and video, with an emphasis on understanding the unique problems and challenges of these genres from the writer's perspective. Students write and revise one or more works. Prerequisite: ENGL 111.

**ENGL 307. Professional Writing. (3).**

This workshop course focuses on mastering editing and technical skills for professional writing in fields such as print publishing, medical and science writing, and Web content development. Students will develop a portfolio of one or more original works that may serve as writing samples for the professional writing job market. Writing Intensive (Maximum class size 20). Prerequisite: ENGL 111. Recommended: ENGL 201.

**ENGL 312. The Teaching of Writing. (3).**

This course explores the cultural context of the teaching of writing in grades K-12. By working on collaborative class projects, students investigate major theories in composition and creatively apply them to different classroom scenarios. This course is required for all liberal studies majors and recommended for those who plan to teach at any level. Prerequisite: Junior or Senior standing.

**ENGL 314. English Language and Linguistics. (4).**

An introduction to the linguistic theories of the English language, including studies in phonology, morphology, and syntax, with particular emphasis on syntactic analyses. Prerequisite: ENGL 111 and junior standing.

**ENGL 316. First and Second Language Acquisition. (4).**

An introduction to the processes by which children acquire language and adults learn second languages. Special attention is given to the practical application of linguistic theories of language acquisition to teaching and tutoring. This class is recommended for students who plan to be teachers or to tutor in the CLU Writing Center. Prerequisite: ENGL 111 and junior standing.

**ENGL 317. Language Dev in Early Childhood. (3).**

The study of language acquisition through sounds, words, and grammar. Includes the importance of an opportunities for language learning in both planned and unplanned situations. This course involves field work. Employed teachers may use their work experience.

**ENGL 318. Methods of Teaching and Tutoring Diverse Student Writers. (3).**

Students observe and participate in multilingual classrooms, study current scholarship about ESL, and prepare lesson plans for the classroom. Required for all Writing Center Tutors.

**ENGL 319. Multimedia Presentations. (3).**

This course teaches research and presentation methods as well as basic Web design principles, Dreamweaver and online posting. Students integrate research, Web design and presentation skills to create several small projects and one major project, all of which are presented and critiqued by the class and the instructor.

**ENGL 323. English Literature I. (4).**

This course explores the major themes and social contexts of English literature from its emergence through the early modern period. Prerequisite: ENGL 111.

**ENGL 324. English Literature II. (4).**

This course explores the major themes and social contexts of English literature from the eighteenth century through the Victorian era to the present day.

**ENGL 325. American Literature I. (4).**

This course traces the intellectual and social influences upon the literature of what will become the United States of America, from the birth of a colonial new world, through its growth into an independent country, up to the eve of the Civil War. Prerequisite: ENGL 111.

**ENGL 326. American Literature II. (4).**

This course focuses on the intellectual and social influences on the literature of the United States from the Civil War through the 20th century, with an emphasis on the impact of realism and modernism on the literary imagination.

**ENGL 330. Cinema. (4).**

This course focuses on understanding and interpreting film. Each semester offers a different emphasis based on genre or theme. Examples include International Film, Hollywood Classics, Understanding Comedy, or The Development of American Cinema. The course does not satisfy the literature requirement. Prerequisite: ENGL 111.

**ENGL 335. Children's Literature. (3).**

A cultural approach to children's literature through its history, major writers, genres, and themes. This course does not satisfy the Core requirement in literature, but it is required for the Liberal Studies major and recommended for students who have a strong interest in working with children. Prerequisite: Junior or Senior standing.

**ENGL 341. Studies in the Novel. (4).**

This course may take various approaches to the genre: a thematic approach (Politics and the Novel, Desire and Sexuality in the Novel); a subgenre approach (The Epistolary Novel, The Detective Novel); or an historical approach that includes relevant theoretical aspects of its development (History of the Novel, The Post-modern Novel).

**ENGL 342. History of Drama. (4).**

A survey of dramatic literature from the beginnings of Greek tragedy to the rise of realism in the 19th century. Among the theatres represented are Classical Greece, the Spanish Golden Age, the English Renaissance, 17th-century France and the Romantic Period (cross-listed with TA 342).

**ENGL 343. Studies in Drama. (4).**

This course explores a movement, historical period or theme in drama such as Theatre of the Absurd, Contemporary Theater, or The American Family (cross-listed with TA 343).

**ENGL 345. History of English Poetry. (4).**

A study of the development and theory of poetry, exemplified especially in English works and those influencing English and American poetry.

**ENGL 346. Studies in Poetry. (4).**

This course explores a theme, genre, or movement in poetry such as the sonnet, political poetry, or post World War II poetry.

**ENGL 350. Studies in African-American Literature. (4).**

With an emphasis on literary works by African-American writers, this course explores race in the American context. Each semester offers a different focus based on culture, genre, or theme. For example: Race and Ethnicity in the 19th Century, Modernism and the Harlem Renaissance, or Representations of Race in African-American Literature. Prerequisite: ENGL 111.

**ENGL 352. Gender and Literature: Global Perspectives. (4).**

This course explores gender in literature. Each semester offers a different focus based on culture, genre, or theme. For example: Gender across Global Cultures; Gender and American Culture; Sex, Gender, and Sexual Orientation; or Gender and War. Prerequisite: ENGL 111.

**ENGL 353. Gender and Literature: U.S. Diversity. (4).**

This course will focus on the literary methods of gender analysis, historical analysis, and reader response as three lenses among many through which to deepen your understanding of literature; and will apply these tools to several texts, both historical and contemporary, in which the social categories of gender, sexuality, race and class are of principal concern. Through reading, discussing, and writing about these texts, you will gain a greater awareness of particular issues that have been, and remain, important, if often controversial, in our understanding of identity categories in our culture, and a greater appreciation of the role of literature in shaping them.

**ENGL 355. Post-Colonial Studies in Literature. (4).**

This course examines themes and perspectives in modern world literatures in the contexts of their cultural identities after a nation has gained independence from its former colonizers. These vibrant, sometimes revolutionary voices from African, Indian, and South Pacific roots, among others, represent the complex intersections of literature and culture in the post modern world.

**ENGL 360. The Holocaust in Literature and Film. (4).**

A study of the legislated and systematic extermination of Europe's Jews and other targeted groups by the Nazis. Through representative literature, the course addresses some of the complex religious, philosophical, and psychological issues this event raises. The course uses film and guest speakers to further reveal the genesis and consequences of human intolerance in its extremes. Prerequisite: ENGL 111 and sophomore standing.

**ENGL 361. Contemporary Chicano Literature. (4).**

Intended as a basic exploration of the literature of the Chicano people. This representative synthesis covers the principal genres of poetry, theatre, the novel, the short story, and the essay. An historical framework establishes the different periods of Chicano creativity from its origins in the pre-1960s prior to the Chicano movement, through the Civil Rights movement of the early 1960s and to contemporary times. Note: This class is offered in English and is not for Spanish credit (cross-listed with SPAN 361).

**ENGL 451. Studies in Chaucer. (4).**

A study of Chaucer's major works, with attention to the cultural and literary background and language of the period. (Maximum class size 20).

**ENGL 452. Shakespeare. (4).**

A study of selected plays and the sonnets of Shakespeare, with attention to theatrical, cultural and literary background (cross-listed with TA 452).

**ENGL 453. Studies in Milton. (4).**

A study of major works of Milton, with attention to his life and his significance in English literature.

**ENGL 455. Major American Authors. (4).**

A study of works of one or more major American writers, with attention to the intellectual and cultural background and the literary contributions of each writer. Examples include Julia Alvarez and Toni Morrison, Ernest Hemingway and Edith Wharton, and David Mamet and August Wilson.

**ENGL 456. Major British Authors. (4).**

A study of the works of one or more major authors from Great Britain, with attention to the intellectual and cultural background and the literary contributions of each writer. Examples include the poetry of John Donne and George Herbert, Jane Austen's England, and the politics of Thomas Hardy and D.H. Lawrence.

**ENGL 457. Major European Authors. (4).**

This course focuses on the works of one or more European authors with attention to the cultural environment in which they wrote and the influence of their writing on later artists. Examples of authors who may be chosen for this class include Dante, Flaubert, Lorca, Tolstoy, and Strindberg. (Maximum class size 20). Prerequisite: ENGL 111.

**ENGL 458. Major Anglophone Authors. (4).**

A study of the works of one or more major writers from outside the United States, Great Britain, and Europe with attention to the intellectual and cultural background and literary contributions of each. Examples of authors who may be studied in this course include Nadine Gordimer, Chinua Achebe, and Anita Desai.

**ENGL 470. Literary Criticism and Theory. (4).**

Exploring the development of theories in Western literary criticism from Plato to the present, this course examines the major influences that have contributed to our collective understanding of what it means to read and write literature.

**ENGL 472. Interdisciplinary Studies in Literature. (4).**

This course approaches literature in relation to another field such as history, fine art or religion and may be cross-listed in that department. Examples include Celtic Fine Arts and Literature, American Print Culture, and the Bible as Literature.

**ENGL 480. English Major Capstone Colloquium. (2).**

This course is required for majors and should be taken in the fall of senior year. Students will research and write an original work of literary scholarship or complete a polished creative writing project. Students who wish to pursue a creative project should have taken a creative writing course in the genre they wish to write before enrolling in the Capstone. The Capstone represents the culmination of the major, and as such the Capstone projects are presented to the public every spring. Prerequisites: ENGL 111 and ENGL 301.

**ENGL 482. Selected Topics. (1-4).**

(May be taken more than once).

**ENGL 485. Travel Seminar: Magical Britain: England Scotland and Wales. (1-3).**

This travel course explores the literature of England, Scotland or Ireland. Different semesters may feature different readings and itineraries. Examples include the following: Shakespeare in London & Stratford; Magical England: Preliterate Cultures, Arthurian Legends, and the Rise of Fantasy Fiction; and Jane Austen's England. The course meets regularly during the semester and then concludes with travel during winter break or late May. The travel portion of this course entails additional costs. Prerequisite: ENGL 111. (cross-listed with ART 485).

**ENGL 490. Independent Study. (1-4).****ENGL 492. Internship. (1-4).**

(graded P/NC only).

## Environmental Science

Environmental science is the application of scientific information in order to solve conflicts resulting from humans' use of our planet's resources. This requires an understanding of the sustainability of natural systems and resources, the interrelationships between these systems, as well as the human impact on the environment.

Environmental science is thus an inherently interdisciplinary field, using and combining information from such varied disciplines as:

- biology
- chemistry
- geology
- economics
- political science
- law
- ethics

California Lutheran University's B.S. degree in environmental science is designed to provide the student with the tools to critically examine environmental issues from a variety of perspectives.

Beyond the required foundational science courses, the program provides a broad range of science and humanities courses to select from, allowing students to tailor the program to their interests. The curriculum emphasizes experiential learning, providing the student with opportunities to actively engage in research.

Many students who obtain the B.S. degree in environmental science are planning careers in environmental protection and management, risk assessment, environmental law or education. The program also prepares students to pursue graduate studies in various environmental fields.

## Bachelor of Science in Environmental Science

45 credits minimum, 18 credits upper division.

GEOL 152/152L or BIOL 325/325L	Introduction to Environmental Science and Introduction to Environmental Science Lab Environmental Ecology	4
Select one of the following:		4-5
BIOL 111/111L	Principles of Biology and Principles of Biology Lab	
BIOL 120/123L	Introduction to Ecology and Populations and Introduction to Biological Experimentation I	
Select one of the following:		4-5
CHEM 111/111L	Chemistry and the Environment and Chemistry and the Environment Lab	
CHEM 151/151L	General Chemistry and General Chemistry Lab	
GEOL 111/111L	Physical Geology and Physical Geology Lab	4

MATH 231	Biostatistics	4
ENVS 485	Environmental Science Capstone	2
Select three of the following:		12
BIOL 311/311L	Ecology and Evolution and Ecology and Evolution Lab	
BIOL 325/325L	Environmental Ecology and Environmental Ecology Lab (If not used earlier)	
BIOL 345/345L	Marine Biology and Marine Biology Lab	
BIOL 352/352L	Oceanography and Oceanography Lab	
BIOL 452/452L	California Plant Communities and California Plant Communities Lab	
CHEM 301/301L	Environmental Chemistry and Environmental Chemistry Lab	
GEOL 331/331L	Invertebrate Paleontology and Invertebrate Paleontology Lab	
GEOL 332/332L	Stratigraphy and Sedimentation and Stratigraphy and Sedimentation Lab	
GEOL 395/395L	Water Resources and Laboratory and Field Studies in Water Resources	
GEOL 405/405L	Geophysics and Geophysics Lab	
Select two of the following:		8
REL 352	Environmental Ethics	
ECON 414	Economics of the Environment	
ENGL 216	Environmental Literature	
POLS 414	Environmental Law and Policy	
Additional Science course <sup>1</sup>		4
Total Hours		46-48

1 From Biology, Chemistry, Geology, Physics at the 200 level or above or two field experience courses (see adviser for list of approved choices).

## Courses

**ENVS 482. Selected Topics. (1-4).**

**ENVS 485. Environmental Science Capstone. (2).**

This course introduces students to the professional skills and practices required in the environmental field. Includes introduction to GIS (Geographic Information Systems), literature searches, written and oral presentation of work. Prerequisite: senior standing.

**ENVS 490. Independent Study. (1-4).**

**ENVS 492. Internship. (1-4).**

## Environmental Studies (minor)

The Environmental Studies minor offers students an overview of environmental perspectives in:

- biology
- geology
- religion
- literature
- geography

Students choose from a variety of courses that span environmental writers and the ethics of environmental decisions to ecology and the availability of water resources. Courses are geared to benefit both science and liberal studies majors.

Many students who minor in Environmental Studies are planning careers in environmental law or education.

### Minor in Environmental Studies

Five courses, 17-20 credits of which two courses (minimum 6 credits) must be upper division. Note: BIOL 352 may be substituted for BIOL 118 /GEOL 118 provided prerequisites are met. Either BIOL 305 or BIOL 452, but not both, may be applied to the minor.

**Lower Division:**

GEOL 152/152L	Introduction to Environmental Science and Introduction to Environmental Science Lab	4
BIOL 118/118L	The Oceans and The Oceans Lab	4
or GEOL 118/118L	The Oceans	
CHEM 111/111L	Chemistry and the Environment and Chemistry and the Environment Lab	4
ENGL 216	Environmental Literature	4

**Upper Division:**

BIOL 305	Flora of Southern California	3
BIOL 325/325L	Environmental Ecology and Environmental Ecology Lab	4
BIOL 345/345L	Marine Biology and Marine Biology Lab	4
BIOL 452/452L	California Plant Communities and California Plant Communities Lab	4
GEOL 395/395L	Water Resources and Laboratory and Field Studies in Water Resources	4
REL 352	Environmental Ethics	4

## Courses

**ENVS 482. Selected Topics. (1-4).****ENVS 485. Environmental Science Capstone. (2).**

This course introduces students to the professional skills and practices required in the environmental field. Includes introduction to GIS (Geographic Information Systems), literature searches, written and oral presentation of work. Prerequisite: senior standing.

**ENVS 490. Independent Study. (1-4).****ENVS 492. Internship. (1-4).**

## Ethnic Studies (minor)

The minor in ethnic studies is based on the belief that the concerns of diverse communities and multicultural studies are important components of a comprehensive education. Ethnic studies is the study of the cultural, political, social and historical forces that shaped the multicultural landscape of the United States. The ethnic studies minor seeks to educate students to be culturally versatile, which is invaluable in an increasingly diverse nation and world. The ethnic studies minor is also designed to enhance skills in critical thinking, comparative analysis and written expression. The minor integrates several disciplines into the overall definitional, conceptual and practical frameworks of diversity and multiculturalism.

The ethnic studies minor offers an education that is beneficial for those considering admission to graduate schools, as well as careers in education, law, business, politics and international relations. This is an interdisciplinary minor that allows the student to accomplish the goals of the minor from social science, artistic and humanities perspectives.

## Minor in Ethnic Studies

With the guidance of the coordinator of ethnic studies, students will develop a course of studies to fulfill the minor. 15 credits minimum.

Select four of the following from at least 2 disciplines:

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CRIM 430	Race, Ethnicity, Gender, and Crime
ENGL 350	Studies in African-American Literature
ENGL 360	The Holocaust in Literature and Film
HIST 326	Civil War: Slavery to Civil Rights
POLS 210	Multiculturalism, Race and Politics in The United States
POLS 412	Civil Rights Movement
POLS 413	Music and the Civil Rights Movement
REL 357	Malcolm X and M.L. King
REL 360	Jews and Judaism
SOC 360	Racial and Ethnic Relations
SPAN/ENGL 361	Contemporary Chicano Literature

## Exercise Science

The Exercise Science Department is an interdisciplinary program that prepares students for allied health, human movement, and physical education career opportunities. Coursework in the major that contributes to the understanding of human movement includes:

- biomechanics
- exercise physiology
- motor learning and development
- nutrition

The program is augmented by foundational courses in:

- anatomy
- physiology
- psychology
- biology
- chemistry
- physics

Many of the careers associated with a degree in exercise science require additional education, certification, or licensure beyond an undergraduate degree. As such, upon graduation, students are prepared to enter additional educational programs in:

- medicine
- physical therapy
- athletic training/sports medicine
- exercise physiology
- biomechanics
- fitness management
- nutrition
- teaching physical education
- other health and movement related fields

## Bachelor of Science in Exercise Science

The Exercise Science Department offers three emphasis areas for the Bachelor of Science degree:

1. Health Professions
2. Human Performance
3. Pedagogy/Teaching Physical Education

The Exercise Science Department emphasizes a “hands on” approach to learning with laboratory experiences for many of its courses. In addition, the Department is committed to undergraduate research as a key element of the academic experience. Students are exposed to research throughout the program, culminating in an independent research project in their terminal experience. Students are encouraged to participate in internships and volunteer throughout the community in venues relating to their particular emphasis and future professional aspirations.

## Course Requirements by Emphasis Area

### Health Professions

63-66 credits minimum, 23-25 credits upper division.

EXSC 201/201L	Functional Anatomy and Functional Anatomy Lab <sup>1</sup>	4
EXSC 202/202L	Exercise Physiology and Exercise Physiology Lab <sup>1</sup>	4
EXSC 301/301L	Biomechanics and Biomechanics Lab	4

EXSC 302	Motor Development Across a Life Span	3
EXSC 494	Capstone	2
BIOL 120	Introduction to Ecology and Populations	3
BIOL 121	Intro to Cells and Organisms	3
BIOL 123L	Introduction to Biological Experimentation I	2
BIOL 124L	Introduction to Biological Experimentation II	2
CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
Select one of the following:		4-5
PHYS 201/201L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab	
PHYS 211/211L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab	
Select one of the following:		4-5
PHYS 202/202L	Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	
PHYS 212/212L	Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab (Select one of the following:)	
PSYC 222	Abnormal Psychology	4
EXSC 300	Exercise Prescription	3
EXSC 325	Statistics and Research Methods in Exercise Science	4
Select two of the following: *		8
BIOL 361/361L	Microbiology and Microbiology Lab	
CHEM 331/341	Organic Chemistry and Organic Chemistry Lab	
CHEM 425/425L	Biochemistry and Biochemistry Lab	
EXSC 340	Motor Learning and Control	
EXSC 487	Clinical Exercise Prescription	
PSYC 304	Child and Adolescent Development	
PSYC 305	Adult Development and Aging	
PSYC 331	Physiological Psychology	
Total Hours		64-66

\* Two additional courses chosen in consultation with an adviser.

### Required Supporting Courses

Support courses are those courses from outside the department that fulfill foundational knowledge requirements (prerequisites) for students in Exercise Science.

BIOL 221/221L	Human Anatomy and Human Anatomy Lab	4
BIOL 222/222L	Human Physiology and Human Physiology Lab	4
PSYC 200	General Psychology	4
Total Hours		12

<sup>1</sup> BIOL 221 & BIOL 222 (Anatomy and Physiology) are prerequisites for EXSC 201 (Functional Anatomy) and EXSC 202 (Exercise Physiology). Students are advised to take Anatomy and Physiology as early as possible in their course sequence.

### Human Performance

60 credits minimum, 38 credits upper division.

EXSC 201/201L	Functional Anatomy and Functional Anatomy Lab <sup>1</sup>	4
EXSC 202/202L	Exercise Physiology and Exercise Physiology Lab <sup>1</sup>	4
EXSC 301/301L	Biomechanics and Biomechanics Lab	4
EXSC 302	Motor Development Across a Life Span	3
EXSC 494	Capstone	2
EXSC 300	Exercise Prescription	3
EXSC 303	Nutrition	3

EXSC 325	Statistics and Research Methods in Exercise Science	4
EXSC 340	Motor Learning and Control	4
EXSC 401/401L	Advanced Biomechanics and Advanced Biomechanics Lab	4
EXSC 470/470L	Advanced Exercise Physiology and Advanced Exercise Physiology Laboratory	4
EXSC 480	Social Psychology of Sport	4
EXSC 487	Clinical Exercise Prescription	3
CHEM 151	General Chemistry	4
CHEM 151L	General Chemistry Lab	1
CHEM 152	General Chemistry II	4
CHEM 152L	General Chemistry II Lab	1
Select one of the following:		4-5
PHYS 201/201L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab	
PHYS 211/211L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab	

Total Hours 60-61

### Required Supporting Courses

Support courses are those courses from outside the department that fulfill foundational knowledge requirements (prerequisites) for students in Exercise Science.

BIOL 221/221L	Human Anatomy and Human Anatomy Lab	4
BIOL 222/222L	Human Physiology and Human Physiology Lab	4
MATH 151	Precalculus	4
PSYC 200	General Psychology	4

Total Hours 16

<sup>1</sup> BIOL 221 & BIOL 222 (Anatomy and Physiology) are prerequisites for EXSC 201 (Functional Anatomy) and EXSC 202 (Exercise Physiology). Students are advised to take Anatomy and Physiology as early as possible in their course sequence.

### Pedagogy/Teaching

62 credits minimum, 39 credits upper division.

EXSC 201/201L	Functional Anatomy and Functional Anatomy Lab <sup>1</sup>	4
EXSC 202/202L	Exercise Physiology and Exercise Physiology Lab <sup>1</sup>	4
EXSC 301/301L	Biomechanics and Biomechanics Lab	4
EXSC 302	Motor Development Across a Life Span	3
EXSC 494	Capstone	2
EXSC 203	Prevention and Care of Athletic Injuries	2
EXSC 251	Individual and Dual Sports and Activities	3
EXSC 252	Team Sports	3
EXSC 300	Exercise Prescription	3
EXSC 350	Movement Education in the Elementary School	2
EXSC 351	Folk and Square Dance	1
EXSC 352	Adaptive Physical Education	3
EXSC 353	Field Observations	2
EXSC 354	Elementary School Physical Education	4
EXSC 355	Secondary School Physical Education	4
EXSC 450	History and Principles of Physical Education	3
EXSC 451	Organization and Administration	3
EXSC 452	Measurement and Evaluation in Physical Education	3
EXSC 480	Social Psychology of Sport	4

Activity Courses \* 5

Total Hours 62

\* A minimum of five activity courses for this emphasis must be taken.

### Required Supporting Courses

Support courses are those courses from outside the department that fulfill foundational knowledge requirements (prerequisites) for students in Exercises Science.

BIOL 221/221L	Human Anatomy and Human Anatomy Lab	4
BIOL 222/222L	Human Physiology and Human Physiology Lab	4
PSYC 200	General Psychology	4
Total Hours		12

1 BIOL 221 & BIOL 222 (Anatomy and Physiology) are prerequisites for EXSC 201 (Functional Anatomy) and EXSC 202 (Exercise Physiology). Students are advised to take Anatomy and Physiology as early as possible in their course sequence.

## Activity Courses

### Lower Division

**ACTV 102. Badminton. (1).**

**ACTV 104. Golf. (1).**

**ACTV 105. Tennis I. (1).**

**ACTV 107. Volleyball. (1).**

**ACTV 111. Physical Fitness, Health & Wellness. (1).**

**ACTV 112. Alexander Technique. (1-2).**

Introduces students to the principles of the Alexander Technique and the application of these principles in their major areas. The principles develop increased mind and body coordination and are most commonly applied to acting, singing, public speaking, musical instrument performance and athletic performance. (cross-listed with TA 112).

**ACTV 120. Aerobic Dance. (1).**

**ACTV 121. Folk and Square Dance. (1).**

**ACTV 122. Modern Dance I. (1).**

**ACTV 123. Modern Dance II. (1).**

**ACTV 124. Polynesian Dance. (1).**

**ACTV 125. Swing Dance. (1).**

**ACTV 126. Ballroom Dance. (1).**

**ACTV 127. Ballet. (1).**

**ACTV 130. Tap Dance. (1).**

**ACTV 140. Body Conditioning -(women). (1).**

**ACTV 141. Body Conditioning (men). (1).**

**ACTV 142. Tai Chi. (1).**

**ACTV 143. Yoga. (1).**

**ACTV 146. Jogging. (1).**

**ACTV 148. Tae Kwon Do. (1).**

**ACTV 149. Swimming. (1).**

**ACTV 150. Self Defence and Assault Prevention. (1).**

**ACTV 151. Speed Development. (1).**

**ACTV 152. Advanced Body Conditioning. (1).**

**ACTV 182. Selected Topics. (1).**

## **Upper Division**

**ACTV 312. Alexander Technique. (1-2).**

Introduces students to the principles of the Alexander Technique and the application of these principles in their major areas. The principles develop increased mind and body coordination and are most commonly applied to acting, singing, public speaking, musical instrument performance and athletic performance. (cross-listed with TA 312 and MUS 312).

## **Athletic Team Courses**

**ATHL 160. Intercollegiate Baseball. (1).**

**ATHL 161. Intercollegiate Basketball. (1).**

**ATHL 163. Intercollegiate Cross Country. (1).**

**ATHL 164. Intercollegiate Football. (1).**

**ATHL 165. Intercollegiate Golf. (1).**

**ATHL 166. Intercollegiate Soccer. (1).**

**ATHL 167. Intercollegiate Softball. (1).**

**ATHL 168. Intercollegiate Tennis. (1).**

**ATHL 169. Intercollegiate Track & Field. (1).**

**ATHL 170. Intercollegiate Volleyball. (1).**

**ATHL 171. Intercollegiate Swimming & Diving. (1).**

**ATHL 172. Intercollegiate Water Polo-Men. (1).**

**ATHL 173. Intercollegiate Water Polo-Women. (1).**

# Exercise Science Courses

## Lower Division

### **EXSC 201. Functional Anatomy. (4).**

The anatomical basis of human motion. Development of the locomotor system from tissue structure and function to anatomical description of skeletal muscles and their interaction in producing coordinated movement. Mechanical aspects of movement at the skeletal and muscular level. Prerequisites: BIOL 221, BIOL 222; Corequisite: EXSC 201L.

### **EXSC 201L. Functional Anatomy Lab. (0).**

Hands-on activities designed to enhance the understanding and learning of associated lecture topics. Corequisite: EXSC 201.

### **EXSC 202. Exercise Physiology. (4).**

Structure, function and regulation of the physiological systems most important in exercise, physical education and sport settings. Emphasis is placed on muscular, metabolic, cardiovascular, nervous and endocrine systems. Prerequisites: BIOL 221, BIOL 222; Corequisite: EXSC 202L.

### **EXSC 202L. Exercise Physiology Lab. (0).**

Will cover tests of exercise metabolism via oxygen uptake, muscle physiology and performance via electromyography and lactate production, anthropometry and body composition via standard anthropometric methods, resting and exercise respiration via standard spirometry and cardiovascular response to exercise via electrocardiography. Corequisite: EXSC 202.

### **EXSC 203. Prevention and Care of Athletic Injuries. (2).**

Topics covered in this course include medical terminology, emergency medical techniques, basic injury mechanisms and an introduction to recognition and treatment of common athletic injuries. Experience will be gained in basic taping techniques. Prerequisites: BIOL 221, BIOL 222.

### **EXSC 204. Introduction to Exercise Science. (2).**

This course is designed to introduce students to the field of Exercise Science, including the various disciplines included under the umbrella of exercise science, the professionals related to an exercise science degree, the terminology applied to the field, the interactions between the various disciplines, and how methods of inquiry produce knowledge in exercise science.

### **EXSC 206. First Aid and C.P.R for the Professional Rescuer. (2).**

The theory and practice of first aid and cardio-pulmonary resuscitation for the professional rescuer. Topics in the class include: one and two rescuer CPR, bag valve mask and pocket mask use, oxygen administration and AED administration. American Red Cross First Aid, CPR/AED Certification for the professional rescuer is awarded upon successful completion of the necessary requirements.

### **EXSC 220. Coaching Baseball/Softball. (2).**

### **EXSC 221. Coaching Basketball. (2).**

### **EXSC 222. Coaching Football. (2).**

### **EXSC 223. Coaching Golf. (2).**

### **EXSC 224. Coaching Gymnastics. (2).**

### **EXSC 225. Coaching Swimming and Diving. (2).**

### **EXSC 226. Coaching Tennis. (2).**

### **EXSC 227. Coaching Track and Field. (2).**

### **EXSC 228. Coaching Volleyball. (2).**

### **EXSC 229. Coaching Soccer. (2).**

### **EXSC 251. Individual and Dual Sports and Activities. (3).**

Studies knowledge and skills involved in playing and teaching individual and dual sports and encouraging participation in individual and dual exercise activities. Emphasis on teaching the skills involved in individual and dual sports and activities and motivating people to engage in a healthy and active lifestyle through exercise. Includes techniques for special populations, cultures and ethnicities.

**EXSC 252. Team Sports. (3).**

Studies the knowledge and skills required for playing and teaching team sports and games.

**EXSC 282. Selected Topics. (1-4).**

## Upper Division

**EXSC 300. Exercise Prescription. (3).**

Design, implementation and evaluation of exercise and physical activity programs for all populations. Covers the scientific basis for exercise prescription, gender issues, ethnicity issues, children and older adult issues, and exercise prescription for sports. Emphasis involves the scientific application of training principles and safety to improve both health and physical fitness. Prerequisite: EXSC 201, EXSC 202.

**EXSC 301. Biomechanics. (4).**

Studies the mechanical basis of human motion based on Newtonian mechanics. Emphasis involves applying the laws of physics to sports and exercise. Corequisite: EXSC 301L. Prerequisite: EXSC 201.

**EXSC 301L. Biomechanics Lab. (0).**

Covers the physics of human movement. Study will be augmented by laboratory experiences using high speed video, electromyography, kinematic analysis via computer digitized skills, kinetic analysis via load cells and a force platform. Corequisite: EXSC 301.

**EXSC 302. Motor Development Across a Life Span. (3).**

Motor skills or movement skills provide much of the means of human interaction with the environment. Studies the interaction of motor skills and the environment through birth, infancy, childhood, adolescence, adulthood, middle adulthood and old age. Emphasis involves recognition and analysis of the sequence of skill landmarks throughout the life span.

**EXSC 303. Nutrition. (3).**

Studies the role of food in metabolism for enhancing exercise performance and the interaction of food types with energy production, growth, development and weight control. The course integrates data from chemistry, exercise physiology, biochemistry, medicine, and physiology. Cultural issues of food and the social implications of diet and nutrient intake are emphasized. Prerequisite: EXSC 202.

**EXSC 325. Statistics and Research Methods in Exercise Science. (4).**

The course will provide a strong basic knowledge of statistics commonly used in research in the exercise sciences. Understanding of appropriate research design will be covered. A strong emphasis on reading current literature and the application of statistics will be made. Prerequisite: MATH 151.

**EXSC 340. Motor Learning and Control. (4).**

This course will provide an introduction to clinical assessment of exercise, with particular focus on modalities. This course will examine the theoretical and clinical basis for the use of therapeutic modalities in clinical assessment. This course will provide knowledge regarding the scientific basis and physiological effects of various modalities, as well as knowledge of safe and appropriate use of modalities in clinical assessment. Prerequisite: EXSC 201, EXSC 202, EXSC 302.

**EXSC 350. Movement Education in the Elementary School. (2).**

Movement education methods can enhance or replace traditional command-style teaching techniques. Studies the methods of movement problem solving and how a variety of educational goals can be achieved by movement education.

**EXSC 351. Folk and Square Dance. (1).**

Studies folk, social and square dances from many cultures. Emphasis on the history and cultural importance of dances and their role in serving social needs and providing cultural identities.

**EXSC 352. Adaptive Physical Education. (3).**

Covers the theory and techniques of providing physical activity for special populations. Emphasis is on the interaction of physical/mental challenges and physical activity. Prerequisite: EXSC 251.

**EXSC 353. Field Observations. (2).**

Students will observe community teachers and students in real physical education settings. The students will perform systematic observation of student and teacher conduct and meet once each week to discuss their observations.

**EXSC 354. Elementary School Physical Education. (4).**

Covers the development of knowledge, skills and attitudes in traditional and nontraditional activities and methods at the elementary school level.

**EXSC 355. Secondary School Physical Education. (4).**

Covers the development of knowledge, skills and attitudes in traditional and nontraditional activities and methods at the secondary school level.

**EXSC 401. Advanced Biomechanics. (4).**

Studies the three-dimensional mechanical aspects of human movement. Topics include gait analysis, mechanical properties of biological tissues, work-energy approach to movement analysis, inverse dynamics, ergonomics and postural sway. Prerequisite: EXSC 301.

**EXSC 401L. Advanced Biomechanics Lab. (0).**

Use cutting-edge technologies to understand and analyze human movement. Technologies include high-speed motion analysis, electromyography, and force plates. Students will complete a semester-long research project in a topic of their choice. Pre-requisite: EXSC 301 & EXSC 301L.

**EXSC 450. History and Principles of Physical Education. (3).**

Studies the historical roots of physical education and sport. Emphasis on the history of physical education and sport in the development of societies from antiquity to current times.

**EXSC 451. Organization and Administration. (3).**

Covers the principles and methods of organizing and administering physical education, recreation and sports.

**EXSC 452. Measurement and Evaluation in Physical Education. (3).**

Covers the use of statistics to collect data, analyze the data and make decisions based on the data. Also covers the use of tests in exercise science. Emphasis on the reliability and validity of tests and appropriate methods for interpretation of test scores. Discussion of test issues that relate to gender, ethnicity, culture and others.

**EXSC 460. Mechanics of Biosystems - Calculus. (4).**

Covers basic concepts of beam theory applied to biological systems. Topics covered include tension, compression, torsion, shear, moments, flexure, moments of inertia, dynamics, conservation of momentum, angular velocity, momentum, Conservation laws, constitutive relationships and yield criteria. Students will engage in simple design exercises.

**EXSC 470. Advanced Exercise Physiology. (4).**

Builds on the concepts developed in EXSC 201. Emphasis covers physiological demands of exercise at terrestrial extremes (e.g., altitude, temperature, pressure, etc.). Also covers the special physiology involved in high performance exercise and sport. Pre-requisite: EXSC 202.

**EXSC 470L. Advanced Exercise Physiology Laboratory. (0).**

Will cover physiological processes in more depth particularly exploring physiology at terrestrial extremes and sport and exercise high performance.

**EXSC 480. Social Psychology of Sport. (4).**

Studies the social significance of sports and how sport factors interrelate with the structures, relations and problems of society. Covers contemporary theories and methods of the social sciences as applied to sport.

**EXSC 482. Selected Topic. (1-4).**

**EXSC 483. Seminar. (2-4).**

**EXSC 487. Clinical Exercise Prescription. (3).**

This course will teach principles to manage exercise in persons with chronic disease or disability. Students will learn how to decrease physiologic limitations and improve physical capacity through specific exercise therapies. Students will learn how to define specific goals and choose appropriate training intensity, duration and frequency for persons with chronic disease or disability. Prerequisite: EXSC 300.

**EXSC 490. Independent Study. (1-4).**

**EXSC 492. Internship. (1-4).**

**EXSC 493. Capstone Preparation. (2).**

This course covers the development, organization, conduct and presentation of a major research question which demonstrates mastery of a subject from the discipline of Exercise Science. The course involves preparation for completing a major research paper covering a student-selected (with faculty approval) topic. Prerequisites: Successful completion of EXSC 201 & EXSC 201L and EXSC 202 & EXSC 202L. Completion of or concurrently taking either EXSC 325 or EXSC 452.

**EXSC 494. Capstone. (2).**

Covers the development organization, conduct and presentation of a major research question based on all the previous work involved in course work and personal experiences. The course involves a major research paper covering a student-selected topic (with faculty approval). Prerequisite: Senior Standing and EXSC Core completion or concurrent enrollment, and completion of or concurrent enrollment in EXSC 325 or EXSC 452.

# Geography

(non major/minor)

## Courses

### **GEOG 151. Physical Geography. (3).**

A systematic study of the nature of basic physical elements of human habitat, especially climate, landforms and Earth resources.

### **GEOG 151L. Physical Geography Lab. (1).**

### **GEOG 155. Cultural Geog of Calif.& U.S.. (3).**

An interdisciplinary investigation of the people of the various regions of the United States and California. Includes the study of how peoples' lives are affected by their physical environment, history, cultural and religious inheritance, resources and economic activities.

# Geology

California Lutheran University's Geology Department offers a challenging curriculum for students who are interested in exploring for energy and economic resources, analyzing geologic hazards and mitigating the human impact on the environment.

The program emphasizes learning through course work, as well as through extensive fieldwork. The department works closely with the other related disciplines of chemistry, physics, biology, mathematics and geography. Through their studies and research projects, CLU geology majors will learn how the Earth's processes and life have changed over time.

Southern California offers a unique opportunity for CLU students to study firsthand many of the geologic wonders of the world. Numerous field trips are offered during the year to places such as Death Valley, the Grand Canyon, Owens Valley and the eastern Sierra Nevada.

Along with being accepted in graduate schools around the country, many CLU geology majors have entered careers in petroleum geology, geophysics and the environmental geology fields. In both the public and private sectors, geologists are hired to study groundwater pollution, earthquake hazards and landslides, as well as to work in the mining industry, petroleum industry or in research laboratories.

## Bachelor of Arts in Geology

35 credits minimum, 22 credits upper division.

GEOL 111/111L	Physical Geology and Physical Geology Lab	4
GEOL 112/112L	Historical Geology and Historical Geology Lab	4
GEOL 311/311L	Crystallography and Mineralogy and Crystallography and Mineralogy Lab	5
GEOL 312/312L	Petrology and Petrology Lab	5
GEOL 331/331L	Invertebrate Paleontology and Invertebrate Paleontology Lab	4
GEOL 332/332L	Stratigraphy and Sedimentation and Stratigraphy and Sedimentation Lab	4
GEOL 335/335L	Structural Geology and Structural Geology Lab	5
GEOL 421	Field Geology	4
Total Hours		35

## Required Supporting Courses

PHYS 201/201L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab	4
CHEM 151/151L	General Chemistry and General Chemistry Lab	5
MATH 251	Calculus I	4
Total Hours		13

## Bachelor of Science in Geology

38 credits minimum, 30 credits upper division.

GEOL 111/111L	Physical Geology and Physical Geology Lab	4
GEOL 112/112L	Historical Geology and Historical Geology Lab	4

GEOL 311/311L	Crystallography and Mineralogy and Crystallography and Mineralogy Lab	5
GEOL 312/312L	Petrology and Petrology Lab	5
GEOL 331/331L	Invertebrate Paleontology and Invertebrate Paleontology Lab	4
GEOL 332/332L	Stratigraphy and Sedimentation and Stratigraphy and Sedimentation Lab	4
GEOL 335/335L	Structural Geology and Structural Geology Lab	5
GEOL 421	Field Geology	4
GEOL 485	Seminar	2-4
Total Hours		37-39

## Required Supporting Courses

PHYS 201/201L	Mechanics and Thermodynamics-Algebra and Mechanics and Thermodynamics-Algebra Lab	4
PHYS 202/202L	Electricity, Magnetism, and Optics - Algebra and Electricity, Magnetism, and Optics - Algebra Lab	4
CHEM 151/151L	General Chemistry and General Chemistry Lab	5
CHEM 152/152L	General Chemistry II and General Chemistry II Lab	5
MATH 251	Calculus I	4
MATH 252	Calculus II	4
Total Hours		26

## Minor in Geology

16 credits minimum, 8 credits minimum at upper division level.

GEOL 111	Physical Geology	3
GEOL 111L	Physical Geology Lab	1
GEOL 112	Historical Geology	3
GEOL 112L	Historical Geology Lab	1
Upper Division Geology Credits		8
Total Hours		16

## Courses

### Lower Division

#### **GEOL 111. Physical Geology. (3).**

A systematic analysis of the Earth, inside and out, its rocks, minerals, soils and water. This involves the study of the processes by which these materials are formed and are constantly changed, including how mountains are created and then eroded by streams, wind and glaciers. Volcanoes, earthquakes and plate tectonics are also covered. Field trips. Lecture, 3 hours/week.

#### **GEOL 111L. Physical Geology Lab. (1).**

Hands-on study of rocks and minerals, topographic and air photo interpretation and a variety of geologic exercises that help understand the geologic processes and landforms studied in GEOL 111. Laboratory, 2 hours/week. Prerequisite or corequisite: GEOL 111.

#### **GEOL 112. Historical Geology. (3).**

The study of the ancient distribution of land and sea and change in life through geologic time. Lecture, 3 hours/week. Prerequisite: GEOL 111.

#### **GEOL 112L. Historical Geology Lab. (1).**

Includes fossil identification, geologic map interpretation and paleogeographic problems. Prerequisite or corequisite: GEOL 112.

#### **GEOL 118. The Oceans. (4).**

A general survey of geological and biological processes in the oceans with a strong environmental emphasis. Laboratory exercises and field trips complement lecture material. (cross-listed with BIOL 118).

#### **GEOL 118L. The Oceans Lab. (0).**

**GEOL 152. Introduction to Environmental Science. (3).**

An examination of the relationship between people and the physical environment. Topics include geologic hazards such as volcanoes and earthquakes; pollution of land, air and water; park conservation; energy alternatives; and global challenges such as ozone depletion and human-induced climate change. Lecture, 3 hours/week; Laboratory, 2 hours/week.

**GEOL 152L. Introduction to Environmental Science Lab. (1).**

**GEOL 212. Dinosaurs. (4).**

A survey of the non-avian dinosaurs includes: anatomical comparisons of the major dinosaur groups, plus flying and swimming vertebrates of the Mesozoic Era: new discoveries such as dinosaur eggs and nesting sites, the emergence of birds, soft tissue preservation, and the search for genetic material; a review of the process of fossilization; the paleogeography of the Mesozoic world; and the geological background relevant to dinosaur studies. Lab activities are integrated into the meeting times of the lecture course.

**GEOL 224/224L. Planetary Geology. (4,0).**

This course will focus on the Earth and its local planetary neighbors utilizing the vast amount of information that has been and continues to be acquired by space probes as well as manned lunar missions. Exposure to comparisons with other nearby planets and planetary objects will allow a better understanding of the Earth, especially our impact on climate and resources. New discoveries and observations in planetary geology demonstrate how the field of geology has changed dramatically since the inception of the "space age". This class will provide students with new insights into planetary evolution, the impact of the space program on our societal needs, and challenge them to critically evaluate data. Lecture, 3 hours/week; Laboratory, 2 hours/week.

**GEOL 282. Selected Topics. (4).**

**GEOL 282L. Sel Top Lab. (0).**

**GEOL 285. Interim Travel Course. (1-2).**

## Upper Division

**GEOL 311. Crystallography and Mineralogy. (5).**

Covers morphological crystallography, crystal chemistry, relation of mineral properties to their internal structure, recognition of selected minerals in hand specimen and optical techniques used for mineral identification (use of the polarizing microscope). Lecture, 3 hours/week; Laboratory, 6 hours/week. Prerequisites or corequisites: GEOL 112; CHEM 151.

**GEOL 311L. Crystallography and Mineralogy Lab. (0).**

**GEOL 312. Petrology. (5).**

The study of the origin, occurrence, classification and identification of igneous and metamorphic rocks in hand specimen. Lecture, 4 hours/week; Laboratory, 3 hours/week. Prerequisite: GEOL 311.

**GEOL 312L. Petrology Lab. (0).**

**GEOL 331. Invertebrate Paleontology. (4).**

A survey of the study of ancient life as revealed in the fossil record. Lecture stresses evolutionary theory and the history of life; lab surveys major invertebrate fossil taxa with emphasis on taxonomy and functional morphology. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisite: GEOL 112.

**GEOL 331L. Invertebrate Paleontology Lab. (0).**

**GEOL 332. Stratigraphy and Sedimentation. (4).**

The study of sedimentary rocks, sites of deposition, postdepositional changes and sedimentary tectonics. Lecture, 3 hours/week; Laboratory, 3 hours/week.

**GEOL 332L. Stratigraphy and Sedimentation Lab. (0).**

**GEOL 335. Structural Geology. (5).**

The discussion of primary and secondary rock structures, with particular reference to crustal deformation. Lecture, 3 hours/week; Laboratory, 6 hours/week.

**GEOL 335L. Structural Geology Lab. (0).**

**GEOL 395. Water Resources. (3).**

An introduction to the principles of surface and groundwater hydrology and to problems related to water utilization. Includes water distribution and availability, alternatives for increasing future water supply, water pollution and mitigation, and water rights law.

**GEOL 395L. Laboratory and Field Studies in Water Resources. (1).**

Water sampling and testing; simulation of groundwater movement and contaminant migration; stream-table modeling of fluvial landforms. Field trips to study geologic and hydrologic characteristics of areas important to water supply in California and the Southwest.

**GEOL 405. Geophysics. (4).**

An interdisciplinary study of how to use geophysical observations of the Earth's gravitational and magnetic fields, seismic wave velocities and subsurface electrical resistivity to solve geological and environmental problems. Specific field methods using geophysical instruments will be taught along with the interpretation of the collected data. Lecture, 3 hours/week; Laboratory 3 hours/week. Prerequisites: PHYS 201 & PHYS 202 or PHYS 211 & PHYS 212. GEOL 111 or GEOL 152 recommended. (cross-listed with PHYS 405).

**GEOL 405L. Geophysics Lab. (0).****GEOL 421. Field Geology. (4).**

Studies the field methods used in geology, including surveying, plane tabling, geologic mapping and section measuring. Prerequisite: GEOL 335.

**GEOL 482. Selected Topics. (1-4).****GEOL 482L. Selected Topics Lab. (0).****GEOL 485. Seminar. (2-4).****GEOL 490. Independent Study. (1-4).****GEOL 492. Internship. (1-4).**

(graded P/NC only).

## Global Studies

The twenty-first century world is one characterized by globalization. The forces of globalization, integration and interdependence, have altered the way human beings interact with one another. World affairs are no longer primarily defined by national boundaries, but by the global integration of resources, ideas and communities. To meet the opportunities and challenges posed by an increasingly interdependent world, the Global Studies Program at California Lutheran University is committed to preparing and educating students to be "leaders in a global society" through their academic coursework and experiential learning opportunities. The Global Studies program offers courses that examine the actors (individuals, countries, non-governmental organizations), ideas and processes that shape the cultural, social, political and economic dimensions of global society. The coursework for this program emphasizes three themes:

1. Global Culture and Identity,
2. Global Governance and Civil Society, and
3. Global Economy, Development and Resources.

Thematic courses are used to illustrate how similar issues are understood across different communities in global society. The program offers students an interdisciplinary curriculum that promotes an enhanced appreciation for global diversity (non-Western cultures/societies) and experiential learning.

## Bachelor of Arts in Global Studies

36 credits minimum; 24 credits upper division. Students must take courses from at least 3 different disciplines/departments, and no more than 3 courses from a single department/discipline may be used to fulfill program requirements (except for the language requirement).

Foreign language proficiency equivalent to completion of the 202 level		0
GLST 101/POLS 200	Global Studies <sup>1</sup>	4
Select one of the following:		4
POLS 360	International Relations <sup>1</sup>	
GLST/SOC 318	Immigration in the Global Age <sup>1</sup>	
GLST 401	Global Studies Seminar (capstone)	4

Global Culture and Identity <sup>2</sup>	3-4
Global Governance and Civil Society <sup>2</sup>	3-4
Global Economy, Development and Resources <sup>2</sup>	3-4
Experiential Learning Program <sup>3</sup>	0
Elective courses <sup>4</sup>	15-12
<b>Total Hours</b>	<b>36</b>

- 1 This course cannot be used to fulfill more than one program requirement.
- 2 At least 3 credits must be taken from this theme
- 3 Participation in an approved experiential learning program such as study abroad or internship (no credits will be given unless a specific course(s) is taken; study abroad is highly recommended).
- 4 Select at least 3 courses that are designated/approved as primarily non-Western in focus (may be used to fulfill more than one program requirement).

## Minor in Global Studies

20 credits minimum; 12 credits upper division.

GLST 101/POLS 200	Global Studies <sup>1</sup>	4
Select two of the following: <sup>2</sup>		6-8
Global Culture and Identity		
Global Governance and Civil Society		
Global Economy, Development and Resources		
Foreign language proficiency equivalent to completion of the 202 level		0
Elective Courses		10-8
Experiential Learning <sup>3</sup>		0
<b>Total Hours</b>		<b>20</b>

- 1 This course cannot be used to fulfill more than on program requirement.
- 2 Select one course from at least two of the three themes.
- 3 Participation in an approved experiential learning program such as study abroad or internship (no credits will be given unless a specific course(s) are taken; study abroad is highly recommended).

## Pre-Approved Courses

The following courses have been pre-approved as fulfilling program requirements as designated. Additional courses may also fulfill program requirements with the approval of the program director.

### Global Culture and Identity <sup>1</sup>

ART 111	History of Art	4
ART 112	History of Art	4
ART 411	Early Christian Art	4
ENGL 211	Classical Literature	4
ENGL 260	Topics in World Literature *	4
ENGL 352	Gender and Literature: Global Perspectives	4
ENGL 360	The Holocaust in Literature and Film	4
HIST 101/101D	World Civilization to 1500 and World Civilization Discussion *	4
HIST 102/102D	World Civilizations Since 1500 and World Civilization Discussion *	4
HIST 301	The Greco-Roman World	4
HIST 303	Medieval Europe and the Mediterranean World 500-1500	4
HIST 311	Modern Europe:1500 to Present	4
HIST 313	Europe and Empire	4
HIST 343	Women in Global History	4
GLST 200	Death on the Nile	4

GLST/POLS 477	Cityscapes	4
MUS 101	Music and Culture	3
POLS 402	Post-Modernism: Politics and Philosophy Of Art	4
POLS 411	Ethnic Conflict and Civil War *	4
REL/HIST 331	Christianity in the Roman World	4
REL/HIST 332	Medieval and Reformation Christianity	4
REL 370	Global Religions	4
REL 372	South Asian Religions *	4
PHIL 311	History of Philosophy	4
PHIL 312	History of Philosophy	4
PHIL 355	Chinese Philosophy and Culture *	4
SOC 230	Introduction to World Cultures *	4
SOC 285	Travel Course: Exploring Japanese Society and Culture *	2
GLST/SOC 318	Immigration in the Global Age	4
SPAN 405	Latin-American Culture and Civilization Capstone *	4
<b>Global Governance and Civil Society <sup>1</sup></b>		
POLS 360	International Relations	4
HIST 317	War and Conflict in 20th Century Europe	4
HIST/POLS 382	History and Politics of Latin America *	4
HIST/POLS 384	History and Politics of the Modern Middle East *	4
HIST/POLS 386	History and Politics of South Asia *	4
HIST/POLS 388	History and Politics of East Asia *	4
POLS 206	Globalizing Los Angeles	4
POLS 321	Ancient Political Thought	4
POLS 322	Modern Political Thought	4
POLS 341	European Government and Politics	4
POLS 365	American Foreign Policy	4
POLS 367	Comparative Politics	4
POLS 416	Social Movements and Politics of Global Change	4
POLS 432	Political Violence and Revolutions *	4
POLS 443	Government and Politics of Africa *	4
POLS 461	International Law and Organization	4
POLS 478	The Pacific Rim *	4
REL 351	Global Ethics	4
REL 352	Environmental Ethics	4
REL 353	Violence, Religion and Ethics	4
<b>Global Economy, Development and Resources <sup>1</sup></b>		
COMM 348	Website Design and Publishing	4
BIOL 118	The Oceans	4
BUS 394	International Business	4
ECON 416	International Economics	4
ECON 460	Economic Development	4
GEOL 152/152L	Introduction to Environmental Science and Introduction to Environmental Science Lab	4
GEOL 395/395L	Water Resources and Laboratory and Field Studies in Water Resources	4
POLS 414	Environmental Law and Policy	4

<sup>1</sup> Take a minimum of 3 credits.

\* This course satisfies the global diversity requirement.

## Courses

### Lower Division

#### **GLST 101. Global Studies. (4).**

This course analyzes how social forces and processes have and are transforming the lives of individuals. Issues such as war, peace and justice are examined from a political perspective that reflects them as global rather than rational concerns. (cross-listed with POLS 200).

#### **GLST 200. Death on the Nile. (4).**

This introductory course will examine the culture of the ancient Egyptian through the remnants of its architecture, mythology, literature, art, history, and social structure as a way to understand the civilization that influenced and still influences many other cultures in the West.

#### **GLST 201. The Face Behind the Mask. (4).**

This course is designed to confront students with the search of truth and instill in them the responsibility they owe as individuals within the community to always search out and advocate it.

#### **GLST 285. Travel Seminar. (1-2).**

(graded pass/no credit only).

### Upper Division

#### **GLST 318. Immigration in the Global Age. (4).**

International migration is an integral part of the globalization processes. This course explores the key current theoretical and empirical debates in the study of this global phenomenon. The course covers transnational networks, the formation and implementation of labor recruitment (including human trafficking), migration policies, political conflict, economic and social adaptation, the development of socio-cultural traditions (ethnic identities) and the transformation of gender relations. (cross listed with SOC 318).

#### **GLST 401. Global Studies Seminar (capstone). (4).**

A required senior seminar designed to integrate students' understanding of the shape of the world today. This cross-cultural seminar focuses on values and their modes of expression in cultures around the world. Emphasis is placed on research, effective written and oral reporting, and summation of international concerns and issues.

#### **GLST 477. Cityscapes. (4).**

Through art, politics, and philosophy, this course offers an in-depth study of the cultural landscape of selected global cities. Along with texts, films, and music from such centers as Prague and Mexico city, students develop their own "cityscape" from a region of their choice (often based on their off-campus experience) as their final projects. Open to all students, this course fulfills the requirement for an honors seminar and is the capstone for the Global Studies major. (cross-listed with HNRS 477 and POLS 477).

#### **GLST 482. Selected Topic. (4).**

#### **GLST 490. Independent Study. (1-4).**

#### **GLST 492. Internship. (2-4).**

## History

California Lutheran University's History Department offers a challenging curriculum that explores all aspects of history. Lower division courses center on the acquisition of an introductory knowledge of the history of world civilizations and the United States and the core skills a historian needs to succeed in more specialized course work. Upper division courses offer students a variety of specialized classes, seminars and independent studies, which allow more in-depth exploration of specific topics. Faculty-led travel courses allow students to explore histories at the sites of their creation.

In CLU's history courses, the faculty emphasizes the understanding of the diversity of human experience over time and encourages an appreciation of cross-cultural encounters. All history courses help to develop excellent research, writing, analytical and critical thinking skills. Students are also introduced to useful methods and the debates that surround the writing of history.

History majors have the opportunity to participate in interesting internships as well as engage in projects that bring them to archives, libraries and other sources of primary data in Southern California. Students may also participate in student-faculty research projects that aid them in developing their own goals and research abilities. In keeping with CLU's emphasis on the use of information technology, the history faculty encourages students to develop facility with computer technology as an aid to research, data analysis, and explaining history to others.

CLU's history majors are in demand in the public and private sectors because of their training as good writers, effective researchers, and perceptive analysts. The faculty is actively involved in mentoring students in career choices and avenues for professional development. CLU's program prepares

students for graduate work in history and other social sciences, as well as careers in law, education, administration, museum studies, and journalism, among others.

## Bachelor of Arts in History

36 credits minimum, 20 credits upper division.

HIST 101/101D	World Civilization to 1500 and World Civilization Discussion	4
HIST 102/102D	World Civilizations Since 1500 and World Civilization Discussion	4
HIST 121	United States History to 1877	4
HIST 122	United States History Since 1877	4
Five upper division history courses including the designated capstone class		20
Total Hours		36

## Museum Studies Emphasis

ART 111	History of Art	4
ART 112	History of Art	4
ART 280	Design	3
HIST 343	Women in Global History	4
BUS 375 or BUS 367	Principles of Marketing Behavior in Organizations	4
EDTP 501	Theories of Teaching, Learning and Development	3
HIST 492	Internship (Two Seperate Internships - 4 credits total)	4
<b>Support Courses Required:</b>		
GEOL 152/152L	Introduction to Environmental Science and Introduction to Environmental Science Lab	4
COMM 306 or BUS 301	Business and Professional Communication Communication for Managers	4
PSYC 200	General Psychology	4
Total Hours		38

Candidates for a California Secondary Teaching Credential should contact the Chair of the History Department for a complete list of course requirements for a Single Subject Matter Program in Social Science.

## Minor in History

20 credits minimum, 12 credits upper division

HIST 101 or HIST 102	World Civilization to 1500 World Civilizations Since 1500	4
HIST 121 or HIST 122	United States History to 1877 United States History Since 1877	4
One upper division course in each of the following areas:		12
<b>Non-Western</b>		
HIST 343	Women in Global History	
HIST 380	History and Politics of Modern China	
HIST 382	History and Politics of Latin America	
HIST 384	History and Politics of the Modern Middle East	
HIST 386	History and Politics of South Asia	
HIST 388	History and Politics of East Asia	
<b>European</b>		
HIST 301	The Greco-Roman World	
HIST 303	Medieval Europe and the Mediterranean World 500-1500	
HIST 311	Modern Europe:1500 to Present	
HIST 313	Europe and Empire	
HIST 317	War and Conflict in 20th Century Europe	
HIST 331	Christianity in the Roman World	
HIST 332	Medieval and Reformation Christianity	

HIST 333	World Christianity Since 1600
HIST 390	History and Historians
<b>United States</b>	
HIST 321	Colonial America
HIST 324	Society and Culture in United States History
HIST 326	Civil War: Slavery to Civil Rights
HIST 328	Cold War America
HIST 341	United States Women's History
HIST 335	Christianity in America
<hr/>	
Total Hours	20

## Courses

### Lower Division

#### **HIST 101. World Civilization to 1500. (4).**

Designed to give students a framework for further study in humanities, this course is a survey of the major civilizations and developments in world history to 1500, emphasizing the role of world religions, technological innovations and environmental conditions in shaping the world's major cultural traditions. Discussions focus on development of critical thinking and writing skills through examination of primary historical documents.

#### **HIST 101D. World Civilization Discussion. (0).**

#### **HIST 102. World Civilizations Since 1500. (4).**

Studies the history of an increasingly interdependent world from 1500 to the present, emphasizing the origins and reasons for Western dominance and the impact of and reaction to that dominance in the rest of the world. Discussions focus on development of critical thinking and writing skills through examination of primary historical documents.

#### **HIST 102D. World Civilization Discussion. (0).**

#### **HIST 121. United States History to 1877. (4).**

A broad study of American history from the first settlements through Reconstruction. Special attention is given to the attempt to create an American culture and society, the creation and development of the political system, the shifting roles of women and minority groups, the sectional crisis and Civil War and the postwar attempt to deal with the place of blacks in American society.

#### **HIST 122. United States History Since 1877. (4).**

A broad study of American history from Reconstruction to the present. Special attention is given to the impact of industrialization and urbanization, the changing roles of social classes and minority groups, the experience of the Depression and the persistent attempts at reform, and America's rise to global power, including relations with the Communist world.

#### **HIST 282. Selected Topic. (1-4).**

#### **HIST 285. Interim Travel Course. (2).**

### Upper Division

#### **HIST 301. The Greco-Roman World. (4).**

A study of classical civilization from the origins of ancient Greece to the fall of the Roman Empire in the West. Emphasizes the development of the political and legal institutions, forms of cultural expression and the intellectual traditions that have helped shape Western civilization. (a/y).

#### **HIST 303. Medieval Europe and the Mediterranean World 500-1500. (4).**

Covers the history of Europe and the Mediterranean from the collapse of the Roman Empire in the West through the 15th century. Emphasis is on the intellectual, cultural and economic as well as the military encounters of Europe with Byzantine and Muslim civilizations. Topics also include feudalism, the role of the Christian Church, the rise of towns and cities in Europe, and the legacy of the Middle Ages for our own time. (a/y).

#### **HIST 311. Modern Europe:1500 to Present. (4).**

An examination of the history of modern Europe through the study of some of its most important revolutionary changes. Focuses on the Scientific, English, French, Industrial and Russian revolutions as well as the Enlightenment and building the European Union. (a/y).

**HIST 313. Europe and Empire. (4).**

This course uses the imperial histories of Spain, England, and France to address how European imperialism helped to structure the modern world, anticipating today's globalization. It explores the impact of imperialism and colonialism on peoples and institutions both in Europe and in the rest of the world. (a/y).

**HIST 317. War and Conflict in 20th Century Europe. (4).**

Why was the 20th century perhaps the bloodiest in human history? This course explores the origins, practice and outcomes of modern warfare in Europe, including the influence of ideology and philosophy as well as politics and economics. Although detailed attention is given to World War I and II, it treats warfare in its broadest possible manifestation, and examines some of the longer term socio-political, economic and moral consequences of modern wars for Europe and the world. (a/y).

**HIST 321. Colonial America. (4).**

An exploration of the conflict of cultures during the formative years of the United States from settlement to the Constitution in 1789. Topics include Pre-Columbian Indian cultures, the empire builders of the New World, the environmental impact of the Western Europeans, the development of colonial society and the establishment of the new nation. (a/y).

**HIST 324. Society and Culture in United States History. (4).**

A thematic study of the social evolution of the United States during its first two centuries of development. Significant intellectual and cultural changes are emphasized through the lens of the five pillars of society, family, education, economics, politics, and religion. (a/y).

**HIST 326. Civil War: Slavery to Civil Rights. (4).**

An examination of sectionalism, Civil War and the Reconstruction with emphasis on primary source interpretation. Topics include racism and slavery, the contrasting natures of Northern and Southern societies, the politics of sectionalism, the causes and goals of the Civil War, and racial relationships and policies from Reconstruction to the modern civil rights movement. (a/y).

**HIST 328. Cold War America. (4).**

A close examination of modern United States history during the Cold War and after. Class sessions give attention to the political, social, economic and international developments of what has been termed "the Pax Americana." Focus is specifically on the role of presidents and policymaking, particularly the relationship with the Soviet Union. (a/y). (cross-listed with HNRS 328).

**HIST 331. Christianity in the Roman World. (4).**

A survey of the emergence, growth, and development of the Christian movement from the time of the apostles to the disintegration of the Roman Empire in the West and to the fall of Constantinople in the East. This course will focus on Christianity as actually experienced and practiced by its earlier adherents in the multinational context of empire, and will look at textual, artistic, and material sources of evidence to gain a sense of the Christian past. (cross-listed with REL 331).

**HIST 332. Medieval and Reformation Christianity. (4).**

A survey of the development of Christianity in the post-Roman West, focusing on the rise of papacy, the development of distinctive Western Christian practices and doctrines, and the important role of the church in shaping European society. Special attention will be given to ways the medieval church handled difference and dissent, and to the reform movements of the later Middle Ages and the Protestant and Catholic reformations they brought about. (cross-listed with REL 332).

**HIST 333. World Christianity Since 1600. (4).**

A survey of the history of post-Reformation Christianity as it spread beyond Europe and became truly a global religion, with special emphasis on regional variations, issues of class and gender, and the challenges of modernity. Much of the course will focus on Christianity as variously experienced in the tumultuous 20th century, and in this will underscore both continuities and the rich diversity in the modern and postmodern Christian communities that exist throughout the world today. (cross-listed with REL 333).

**HIST 335. Christianity in America. (4).**

A survey of the history of Christianity in North America, against the backdrop of Native American religion. Beginning with the English, French and Spanish colonial empires, this course will focus on the arrival of religious refugees, the rise of uniquely American religious experiences in the colonial era and the early Republic, religion and American political movements from abolition to abortion, and the complex role of religion in American public life today. (cross-listed with REL 334).

**HIST 341. United States Women's History. (4).**

An in-depth investigation of the interaction of society, women and the community in American history from 1600 to the present. Special emphasis is placed on the ways gender, ethnicity and class influence the role of women in the community with respect to legal rights, sexuality, attitudes and perceptions. (a/y).

**HIST 343. Women in Global History. (4).**

A thematic investigation of the "underside of history." The class explores several topics including women and their role in the development of agriculture and technology in the ancient Near East, the roles of women in the empires of Rome, the Moslems and China, the status of women in the Middle Ages in Europe and Japan, and the role of women leaders like Catherine the Great and Queen Victoria. (a/y).

**HIST 345. California History. (4).**

A study of the history of California through the Indian, Spanish, Mexican and American periods to the present, and through an examination of its basic political, social, economic, educational and cultural traditions and institutions. The class particularly focuses on the relationship of the student to the community. (spring).

**HIST 380. History and Politics of Modern China. (4).**

This course explores the historical transformations that have led to the development of modern China. The course opens with an examination of the Qing dynasty, the last major dynasty in Chinese history, and then explores the forces, internal and external, driving China toward a major revolution in the 20th century.

**HIST 382. History and Politics of Latin America. (4).**

Surveys the politics and history of Latin America from the early encounters of Native Americans with Europeans to the present. The evolution of Latin American institutions (political, cultural and economic) will be traced from 1492 until the present. (cross-listed with POLS 382) (a/y).

**HIST 384. History and Politics of the Modern Middle East. (4).**

An examination of the historical background and contemporary politics of this vital area in world affairs. The politics and economics of oil, the Arab-Israeli conflict, the revival of Islam, and the problems of modernization and development are studied in detail. (cross-listed with POLS 384) (a/y).

**HIST 386. History and Politics of South Asia. (4).**

An examination of the history, culture and politics of South Asia through the Hindu, Muslim and British periods to the present. The impact of these legacies on the problems of state-building, economic development, social change and foreign policy in contemporary India, Pakistan, Bangladesh, Sri Lanka and Nepal is approached from a comparative and regional perspective. (cross-listed with POLS 386) (a/y).

**HIST 388. History and Politics of East Asia. (4).**

An introduction to the history, political thought and institutions of East Asia. Topics may vary in focus from Japan to Vietnam, or Korea. (cross-listed with POLS 388) (a/y).

**HIST 390. History and Historians. (4).**

Using selections from the writings of great historians from the Greeks to the Post-modernists, this course introduces students to a study of the theories of history, the methods of historical research and the development of historical writing. (fall).

**HIST 462. Senior Seminar in Comparative/ Interdisciplinary History. (4).**

An intensive study of an important historical issue or topic based on research in primary sources and culminating in the production of a significant research paper. Rotating topics. (spring).

**HIST 470. Teaching History - Capstone for Social Science Majors. (2).**

This class is dedicated to forging better history teachers for the secondary schools with explorations of pedagogical techniques for teaching American and World history. Includes observation time in the classroom. (spring).

**HIST 482. Selected Topics. (4).****HIST 485. Travel Seminar. (2).****HIST 490. Independent Study. (1-4).****HIST 492. Internship. (1-4).**

(graded P/NC only).

## Honors

(non major/minor)

The University Honors Program (UHP) provides enhanced educational opportunities for CLU's most academically motivated students. The mission of the UHP is to challenge students at a higher level as they grapple with deeper questions of life, identity, and purpose within a global community. It encourages intellectual exploration and experimentation by involving students in an intensive study of works that bridge diverse historical contexts,

cultural settings and fields of knowledge. By balancing tradition and innovation and discovering or creating links between areas of knowledge currently separated by disciplines and departments, the UHP encourages students to think holistically and critically about these works and the global issues they illuminate.

The UHP is open to students by invitation upon admission to CLU, although other admitted students may petition the Honors Committee for admission to the program. In addition, up to five transfers a year may petition to enter the Honors Program either during their sophomore or the beginning of their junior year.

First-year UHP students must attend one of two year-long foundational seminar courses. One of these courses is Humanities Tutorial, a course that explores a wide array of themes in literature and philosophy. From the origins of Western thought in Greek philosophy and literature to an extensive survey of contemporary themes (both Western and non-Western) in more recent writings, the Humanities Tutorial foundational seminar provides a stimulating atmosphere in which to explore important ideas in the humanities.

The second choice of foundational seminar is At Home in the Universe: a Scientific World View. This course affords students the opportunity to delve into some of the most important ideas in post-Enlightenment thought, and provides them with a modern, scientific understanding of man and nature. From cosmological theories for the birth of our universe to the intricate neurological underpinnings of human consciousness, the processes by which our current perception of the natural world has been elucidated will be explored.

During their second and third years, University Honors students must attend at least two honors seminars (preferably one in each year). In their final year, students must attend one capstone honors seminar course. With the successful completion of the capstone and seminars, the student will achieve University Honors. Transfer students will be required to attend at least four honors seminars and the capstone to achieve University Honors.

## Requirements for completion of the Honors Program

Successful completion of 4 honors seminars (16 credits); successful completion of a capstone honors seminar. Students entering on or after the 2007-2008 academic year must maintain a 3.5 cumulative GPA to sustain their membership in the UHP.

## Courses

### Lower Division

#### **HNRS 101/102. At Home in the Universe. (4,4).**

A scientific worldview encourages students to delve into some of the most important ideas in post-Enlightenment thought, and provides them with a modern, scientific understanding of man and nature. From cosmological theories for the birth of our universe to the intricate neurological underpinnings of human consciousness, the processes by which our current perception of the natural world has been elucidated are explored. on cosmology and astrophysics, including the birth and development of our solar system. This is followed by treatments of the essentials of nuclear physics and chemistry and the strangeness of the quantum world. in the geology section of the course. The central theme of biology, evolution by natural selection, is explored by focusing on the mechanisms of evolutionary change, the evolution of sex and cooperative behavior, human origins and futures, and the nature of consciousness and free will. interdisciplinary environmental science. These include discussions on the evolution of different environmental viewpoints; major environmental issues and the science behind them; and the relationship between science, economics, politics and ethics/philosophy with respect to environmental science. challenges to a scientific worldview, both postmodernist critiques and those of theological flavor. Throughout the course, students engage in discussions that emphasize the relevance of scientific discoveries to understanding what it means to be human. In this sense, At Home in the Universe offers a humanistic view of the scientific enterprise.

#### **HNRS 115. Humanities Tutorial. (4).**

The year-long Humanities Tutorial begins with an in-depth, one-semester study of the origins of Western culture in Greek literature and philosophy. The second semester continues with a study of contemporary themes and concerns both in Western and Non-Western thought. In addition to providing practice in the skills of analysis, argument, and critical and reflective interpretation, the course aims to familiarize students with the intellectual ideal of illuminating the new by understanding the old. (cross-listed with PHIL 115, ENGL 115).

#### **HNRS 282. Selected Topic. (1-4).**

### Upper Division

#### **HNRS 301. Globalizing the Feminine: Women in International Film. (4).**

This course will consider issues in the representation of women in film from a variety of perspectives, using feminist as well as film criticism to evaluate films drawn from world cinema.

#### **HNRS 303. Don Quijote and Modern Fiction. (4).**

This course is designed to trace the influence of Don Quijote on contemporary prose fiction and film. It will involve the study of the work itself as well as that of other select works from Western literature for comparison purposes, focusing on literary aspects as well as the historical, social and cultural context. Instructor's consent is required. (cross-listed with SPAN 303).

**HNRS 304. St. Augustine's City of God. (4).**

On the City of God, written between 413-427 CE by Augustine, bishop of Hippo in North Africa, is arguably the most important and lastingly influential Christian text of late antiquity. In it, Augustine answers pagan critics of Christianity, makes the case for Christianity's compatibility with what he thinks is the best part of ancient philosophy, develops a biblical view of history, and makes sense theologically of the greatest historical disaster he and his contemporaries could imagine - the disintegration of the Western Roman Empire. Close reading of the *De Civitate Dei* in English translation. Through the study of this massive work in its historical and intellectual context, students will be exposed to the culture of the late Roman Empire, be led through the Christian theology, philosophy and historiography of late antiquity, and will develop a sense of Augustine's enduring legacy in Western thought. Prerequisites: sophomore standing, completion of REL 100, HIST 101, and the Core 21 philosophy requirement, and at least one additional upper-level course in Religion, History, or Philosophy.

**HNRS 306. Masterpieces of German Literature In Translation. (4).**

The study and interpretation of selected major works from German literature in English translation, supplemented by outside reading and individual reports. (cross-listed with GERM 306).

**HNRS 320. The Science and Aesthetics of Science Fiction. (4).**

This course will examine contemporary science fiction film from a number of perspectives - scientific, philosophical, and aesthetic. A special focus will be placed on identifying the limits of scientific fact and artistic license in aesthetic production. In-class learning activities will include both viewing of films along with detailed, scene-by-scene cinematic analysis through regular small-group (less than 5) mini-workshops.

**HNRS 324. War, Politics and Cinema. (4).**

Explore the political nature of cinema and the ways in which war and political culture, issues and themes are expressed in and through the movies. Particular emphasis is placed in this course on the historical dialectic between "hawks" and "doves."

**HNRS 328. Cold War America. (4).**

A close examination of modern United States history during the Cold War and after. Class sessions give attention to the political, social, economic and international developments of what has been termed "the Pax Americana." Focus is specifically on the role of presidents and policymaking, particularly the relationship with the Soviet Union. (a/y). (Cross-listed with HIST 328).

**HNRS 402. Post-Modernism: Politics and Philosophy Of Art. (4).**

Postmodernism explores the relationship between art, science, and politics in contemporary philosophy. The course begins with a consideration of the legacies of Freud, Nietzsche, and Marx and continues with an analysis of such authors as Breton, Heidegger, Benjamin, Cortázar, Borges, Derrida, Foucault, Heisenberg, and Rorty. Uses film (including students' own short surrealist films) literature, and philosophical texts. Open to all students, it also fulfills the Honors Capstone requirement. (cross-listed with PHIL 402 and POLS 402).

**HNRS 413. Music and the Civil Rights Movement. (4).**

The purpose of this course is to examine the southern civil rights movement (CRM) from 1954 to 1968. This course integrates discussion and analysis of the CRM with music. Music was very important to the movement because it inspired both participants and supporters to continue the struggle until several victories were won. Emphasis in this course is on matching the music with a political event, ideology and/or individual. This course includes discussion on the personal involvement in political and social activities by the singers and performers themselves. Tactics and strategies of the CRM are examined and their relationships to music are explored by relying on music with explicitly political lyrics and messages as well as those with lyrics and composition that convey spiritual and festive elements. (cross-listed with POLS 413).

**HNRS 432. Freud and Beyond. (4).**

The purpose of this course is to introduce students to psychoanalytic theory and the impact of the psychoanalytic theory on society. Students will examine the development of psychoanalysis from an historical perspective beginning with an in depth investigation of Freud, his life and his classical theory. Next, the course will examine the development of psychoanalysis and its departure from traditional Freudian ideology. Students will then consider the four major branches of psychoanalysis including drive theory, ego psychology, object relations, and self psychology. Finally, students will examine contemporary view of psychoanalysis with an emphasis on the integration of psychoanalytic theory and the neurobiology of attachment.

**HNRS 435. Faith and Reason-Capstone. (4).**

Team-taught by professors in philosophy and religion, this course is an integrated and interdisciplinary exploration of the perennial tensions and cross-fertilizations between faith and reason. Authors read include St. Augustine, St. Thomas, Meister Eckhart, Luther, Descartes, Hume, Kierkegaard, Newman and Rudolf Otto. The course meets the capstone requirement for philosophy and religion majors. Open to juniors and seniors from all disciplines. Sophomores must get permission of instructor. (cross-listed with PHIL 435 and REL 435) (spring).

**HNRS 477. Cityscapes. (4).**

Through art, politics, and philosophy, this course offers an in-depth study of the cultural landscape of selected global cities. Along with texts, films, and music from such centers as Prague and Mexico city, students develop their own "cityscape" from a region of their choice (often based on their off-campus experience) as their final projects. Open to all students, this course fulfills the requirement for an honors seminar and is the capstone for the Global Studies major. (cross-listed with GLST 477 and POLS 477).

**HNRS 482. Honors Seminar. (1-4).**

**HNRS 498. Goodness, Truth, and Beauty: Capstone. (4).**

This course examines the relationship between contemporary philosophy and contemporary biology in relation to the major triad of categories dealing with aesthetics, ethics, and the search for truth. (cross-listed with POLS 498).

## Interdisciplinary

For students who are interested in building a major around a specialized problem, theme or vocation, CLU offers an interdisciplinary major in which concentration courses are selected from more than one department.

Students work with an academic adviser to develop a proposal for a course of study that matches the students' needs. A faculty mentor is assigned to assist the student in meeting the goals of the course outline. Students are encouraged to choose an interdisciplinary major between the second semester of their freshman year and the first semester of their junior year. Exceptional cases and transfer students are given special consideration by the committee.

Possible interdisciplinary majors include graphic design, environmental law and policy, international relations, youth counseling, systems analysis and human resources management.

### Major Requirements for B.A. or B.S. in Interdisciplinary:

40 credits with no more than 30 from one department; 24 of these credits must be upper division.

#### Guidelines:

1. Students may declare an interdisciplinary major from the second semester of the freshman year through the first semester of the junior year.
2. The student, with the help of a faculty advisor, shall submit an application to the chair of the interdisciplinary majors committee. The application shall consist of a title page, a two-page rationale, and a list of all college courses in the major, listed under the respective departments.
3. After approval of the application, the student will be assigned a mentor from the committee who will assist the student and the faculty adviser in drawing up a contract.
4. All contracts must be approved by the interdisciplinary majors committee and the Vice President for Academic Affairs.
5. Should the student desire credit for prior experiential learning, the committee will advise as to the portfolio process. No more than 15 credits shall be granted in this manner.
6. Any changes in the student's program must be submitted in writing to the committee for approval.

## Courses

**INTD 101. Freshmen Seminar. (1).**

New Student Orientation seminar in which students learn about college life, CLU's history, the pressures of college, coping skills and maximizing their college experience. (graded P/NC only).

**INTD 282. Sel Top:. (1-4).**

## International Business (minor)

A minor in international business offers students a chance to focus on world trade and the expanding world markets while getting an overview of all aspects of business.

Students interested in business and/or foreign language will benefit from the international business curriculum through hands-on experience with business projects.

Career opportunities in the international business arena include banking, marketing and consulting.

### Minor in International Business

20 credits minimum in Business Administration and/or Economics, 16 credits upper division.

BUS 251	Principles of Accounting	4
BUS 394	International Business	4
Additional upper division credits from international business and/or international economics courses		12
Total Hours		20

## Required Supporting Course

ECON 203/203L	General Economics and General Economics Lab	5
Total Hours		5

## Languages and Cultures

(Includes: Chinese (p. 183), French (p. 184), German (p. 186), Greek (p. 188), Hebrew (p. 188), and Spanish (p. 189))

California Lutheran University's mission commits it to preparing its students to be leaders in a global society. To do this, it insists that its students be conversant in at least one language beyond their native tongue, and offers courses, majors, and minors in a number of languages and cultural areas. The Languages and Cultures Department reflects CLU's intention to provide strong language instruction, engage students closely with other cultures, work across disciplines, language families, and cultures, and promote study abroad and in other cultural contexts. CLU students can expect growth and change from this dynamic and important department.

## Proficiency Requirement

All CLU students are required, for Core-21, to meet the Foreign Language Proficiency in one of the following ways: by achieving a satisfactory score on a Language Proficiency Exam; by passing two courses in the same language; or by passing one course at the second semester level.

For further information and scheduled testing dates, contact the Center for Academic and Accessibility Resources.

## Chinese

(non major/minor)

Conscious of its location on the Pacific Rim, California Lutheran University is excited to be able to offer courses in Chinese at both beginning and intermediate levels. CLU expects growth in this field as its students recognize the usefulness of learning one of the world's most ancient languages and experiencing the culture of one of the largest and most influential nations on earth.

## Courses

### Lower Division

#### **CHIN 101/102. Elementary Chinese. (4,4).**

The beginning courses in Chinese are for students with no previous knowledge of the language. These courses will focus on enabling students to communicate effectively in Mandarin Chinese in a cultural context. Training in all the communicative skills, i.e., listening, speaking, reading, and writing, as well as the acquisition of standard pronunciation of Mandarin Chinese, will be included in this course. In addition, a comparative approach will be used to contrast different social/cultural issues and values between modern China and western countries through the study of the language. Prerequisite CHIN 102: CHIN 101 or equivalent.

#### **CHIN 201/202. Intermediate Chinese. (4,4).**

These courses continue introducing Mandarin Chinese characters, vocabulary, grammar, as well as Chinese culture and computing to students. Intermediate Chinese focuses on the knowledge and critical perspectives in the areas of contemporary society and non-Western culture. Prerequisites CHIN 201: CHIN 102 or equivalent; CHIN 202: CHIN 201 or equivalent.

#### **CHIN 218. Chinese Business Culture and Language. (3).**

As China continues to emerge as the world's major market, knowledge of Chinese language and culture and their impact on modern business conduct are becoming valuable assets for the student who pursues a career in business. Students will learn about Chinese business culture and how it influences the pattern and manner in which Chinese business is operated or managed. Students will compare the different social/cultural issues and values of modern China and western countries. Field trips will immerse and values of modern culture, providing them the opportunity to interact with Chinese people in different business settings, practice conversational skills, and appreciate Chinese customs. No previous study of Chinese is required.

#### **CHIN 282. Selected Topics. (1-4).**

## Upper Division

### CHIN 490. Independent Study. (1-4).

## French

California Lutheran University's French curriculum offers students many educational opportunities through course work, study abroad and extracurricular activities on and off campus. A solid foundation in French enables the CLU graduate to choose from many career alternatives or admission to a graduate school for advanced study of the language.

The technology-enhanced program is designed to provide students with a strong competency in the French language and an understanding of the French cultures throughout the world. Emphasizing an interactive learning environment and maintaining small class sessions, the curriculum includes conversation and composition as well as film, literature, phonetics and linguistics. Audio and videotapes, videodisks and CDs simulate realistic situations, while students and faculty explore French, the second language of the Internet and the second global language.

Both French major and non-major students are encouraged to study abroad in a francophone location. They may choose from partner institutions in Paris, Aix-en-Provence and Avignon, Grenoble, and Cannes for an academic year, a semester or summer.

Students enjoy participating in activities sponsored by the CLU French Club and the French national honor society, Pi Delta Phi, which afford opportunities to practice verbal skill and experience French culture outside the academic environment. French majors may be selected as tutors or chosen as departmental assistants. Several scholarships have been awarded to CLU French majors through Pi Delta Phi and Rotary International, allowing them to study and visit in such locations as France, Belgium, Canada and Africa.

French majors from CLU have entered careers as educators, travel agents, and translators and interpreters for governmental organizations, international businesses, Peace Corps and church missions. Also, the growing field of international management has attracted graduates who have combined their French degree with Business Administration or Global Studies at CLU. Graduates in French are able to secure professional employment not only in the United States, but also in Canada, Africa and European Community institutions, all of which employ the French language second only to English.

## Bachelor of Arts in French

### Track I: Teaching Major

32 credits minimum, 32 credits upper division.

FREN 101/102	Elementary French (or validated by examination)	8
FREN 201/202	Intermediate French (or validated by examination)	8
FREN 301	French Conversation and Composition	4
FREN 311	Survey of French Literature	4
FREN 312	Survey of French Literature	4
FREN 321	French Phonetics/Linguistics	4
FREN 401	Advanced Grammar and Composition	4
One capstone course		4
Upper division electives		8
Total Hours		48

### Track II: General Major

32 credits minimum, 24 credits upper division.

FREN 101/102	Elementary French (or validated by examination)	8
FREN 201/202	Intermediate French (or validated by examination)	8
FREN 301	French Conversation and Composition	4
FREN 311	Survey of French Literature	4
FREN 312	Survey of French Literature	4
FREN 401	Advanced Grammar and Composition	4
One capstone course		4
Upper division electives		4
Total Hours		40

**Note:** Track I is required for majors who will continue their studies beyond the B.A. degree. Track II is for those students who intend to combine their French studies with another major.

Students interested in teaching French should refer to the chair of the French Department for information about the French subject matter program. (See Education (p. 151))

## Minor in French

16 credits minimum, 12 credits of which must be upper division. In addition, the following requirements must be met:

FREN 301	French Conversation and Composition	4
FREN 311	Survey of French Literature	4
or FREN 312	Survey of French Literature	
Any literature course, which may include FREN 312		4
French Elective Credits		4
Total Hours		16

## Courses

### Lower Division

**FREN 101/102. Elementary French. (4,4).**

The beginning study of French, both oral and written, including the fundamentals of grammar, reading and pronunciation through the use of electronic media. Prerequisite: FREN 102: FREN 101 or equivalent.

**FREN 201/202. Intermediate French. (4,4).**

The continued study of spoken and written French, with a thorough foundation in communication skills and grammatical structures through continued use of electronic media. Prerequisites: FREN 201: FREN 102 or equivalent. FREN 202: FREN 201 or equivalent. This course is normally the prerequisite for any upper division course in French.

**FREN 282. Selected Topics. (1-4).**

**FREN 285. Interim Travel Course. (2).**

### Upper Division

**FREN 301. French Conversation and Composition. (4).**

Practice to develop fluency in the use of French as a means of both oral and written expression. Prerequisite: FREN 202 or equivalent or satisfactory score on proficiency exam.

**FREN 305. French Civilization and Culture. (4).**

Study of the development of French civilization, including arts, letters, science and political and social institutions, with an emphasis on contemporary life in France. Prerequisite: consent of instructor. (On demand).

**FREN 311/312. Survey of French Literature. (4,4).**

A study of the representative masterpieces and significant movements of French literature. FREN 311: From the Middle Ages through the Age of Enlightenment; FREN 312: 19th and 20th centuries.

**FREN 321. French Phonetics/Linguistics. (4).**

Pronunciation, diction and intonation in theory and practice including phonetic transcription and oral presentations. Students are required to regularly use available electronic technology.

**FREN 401. Advanced Grammar and Composition. (4).**

A functional review of grammar as used for communication skills. Includes the writing of current idiomatic French, free and oral composition and translation on assigned topics.

**FREN 444. Contemporary French Novel. (4).**

A study of the works of authors Proust, Gide, Mauriac, Bernanos, St. Exupery, Sartre, Camus, Malraux, Simone de Beauvoir and others. Includes general trends of the 20th-century French and Afro-French novel.

**FREN 445. Contemporary French Theatre. (4).**

A study of representative French playwrights such as Claudel, Pagnol, Romain, Cocteau, Giraudoux, Anouilh, Ionesco, Beckett, Camus, Sartre, Arrabal, Genet and others. Includes general trends of 20th-century French theatre.

**FREN 447. French Cinema-Capstone. (4).**

A study of French cinema from its inception through recently produced films. Typical topics covered are French film pioneers, art films, serials, surrealist and New Wave films, musicals, "classics," French cinematographers, directors, actors, etc.

**FREN 448. Francophone Literature - Capstone. (4).**

An eclectic study of the literatures - poems, lyrics, short stories, film scenarios, plays and novels - and cultures of the francophone world outside of France (e.g., Canada, Africa, Belgium, Haiti, Martinique, etc.).

**FREN 453. French Literature of the 19th Century - Romanticism. (4).**

An analysis and discussion of the works of leading authors, with an emphasis on poetry.

**FREN 471. Teaching a Modern Foreign Language. (3).**

A study and discussion of the current methods, techniques and applications for teaching and evaluating foreign language skills at the various levels of instruction. Includes a demonstration of the use of textbooks, multimedia aids and language laboratory equipment and materials. (On demand).

**FREN 482. Selected Topics. (1-4).****FREN 485. Travel. (2).****FREN 490. Independent Study. (1-4).****FREN 492. Internship. (2-4).**

For majors only. (graded P/NC only).

## German

California Lutheran University's German major curriculum offers students a thorough course of study in the language, literature and culture of the German people with a full complement of courses that include conversation and composition, studies in German grammar, literature and film.

CLU's extensive Study Abroad Program provides students with opportunities to study for a semester or an academic year in various institutions in Germany and Austria.

CLU's German graduates have regularly found careers in education, government, business, and even the clergy. These include jobs as teachers, government agents, translators, banking administrators, international businessmen and businesswomen, interpreters and travel agents. When combined with business studies, a degree in German provides graduates with even broader career opportunities.

## Bachelor of Arts in German

32 credits minimum, 24 credits upper division.

GERM 201	Intermediate German	4
GERM 202	Intermediate German	4
GERM 301	Conversation and Composition	4
GERM 311	Survey of German Literature	4
GERM 312	Survey of German Literature	4
GERM 401	Advanced Grammar and Composition	4
GLST 401	Global Studies Seminar (capstone)	4
Upper Division German Electives		4
Total Hours		32

Students who already possess some proficiency in German will be placed at the appropriate level after consultation with the department.

Students interested in teaching German should contact the chair of the German Department for further information. (See Education (p. 151))

## Minor in German

16 credits minimum, 12 credits upper division.

GERM 301	Conversation and Composition	4
GERM 311	Survey of German Literature	4
or GERM 312	Survey of German Literature	
Any upper division course, including Germ 312		4
German Elective Credits		4
Total Hours		16

## Courses

### Lower Division

#### **GERM 101/102. Elementary German. (4,4).**

A foundation in the grammar, speech and writing of German, including the reading of selected texts and supported by regular laboratory practice. Laboratory, 1 hour/week. Prerequisite: GERM 102: GERM 101 or equivalent.

#### **GERM 201/202. Intermediate German. (4,4).**

Development of oral and written skills. This course is the prerequisite for any upper division course in German. Prerequisite: GERM 102 or equivalent or satisfactory score on proficiency exam.

#### **GERM 282. Selected Topics. (1-4).**

#### **GERM 285. Travel Seminar. (1-2).**

### Upper Division

#### **GERM 301. Conversation and Composition. (4).**

A systematic review of grammar and continued practice in advanced spoken and written German toward the development of fluency with advance readings and interpretive studies. Prerequisite: GERM 201 or equivalent or placement by the department.

#### **GERM 306. Masterpieces of German Literature in Translation. (4).**

The study and interpretation of selected major works from German literature in English translation, supplemented by outside reading and individual reports. (cross-listed with HNRS 306).

#### **GERM 308. Nietzsche. (4).**

Friedrich Nietzsche was one of the most outspoken and influential philosophers of the 19th century. Curiously, although he is not widely read among philosophers and is even less well understood, people nonetheless tend to make categorical assumptions about what he believes without having the requisite background to do so. The aim of this course is to place Nietzsche's life, theories, and works into the proper context. We hope, thereby, to be able to present a more complete understanding of Nietzsche's thought and how it has affected the cultural, social, political, and psychological worlds around us today.

#### **GERM 311/312. Survey of German Literature. (4,4).**

The study of the main epochs and personalities in German literature through the reading of representative works. GERM 311: From the beginning to the Enlightenment. GERM 312: From the Enlightenment to the present.

#### **GERM 340. Business German. (4).**

An introduction to the German business environment that deals with marketing, import/export, business transactions, banking, resumes and effective correspondence.

#### **GERM 343. Women in German Literature. (4).**

An in-depth study of women in Germany and Europe after the industrial revolution. The course deals with both female and male writers and the way in which women are portrayed, what roles they assume and how they must attempt to resolve conflicts in modern society.

**GERM 401. Advanced Grammar and Composition. (4).**

A functional review of all phases of communication skills, including the more intricate grammar and idiom. Required of all candidates for a teaching major. (on demand).

**GERM 437. Goethe's Faust. (4).**

This course will undertake a close, thorough reading and critical textual examination of Goethe's world masterpieces, Faust I and Faust II. In so doing, the course will examine the literary, historical, and contemporary creative forces that went into the production of these two dramatic masterpieces. The course will also undertake a study of Goethe and his works within the context of the time in which he wrote them and how his work and his individual literary language developed and took shape to form a unique worldview.

**GERM 447. German Cinema. (4).**

A comprehensive review of German cinema from the inception of motion pictures to the present. The course treats the historical and social implications of film in Germany during its volatile first 40 years and the contribution of German Exile filmmakers.

**GERM 453. German Literature of the 19th Century. (4).**

The study of the main literary exponents from the end of Romanticism through Naturalism (1830-1900). (on demand).

**GERM 454. German Literature of the 20th Century. (4).**

The study of the main literary exponents of Neo-romanticism, Symbolism, Expressionism and contemporary thought. (on demand).

**GERM 471. Teaching a Modern Foreign Language. (3).**

A study and discussion of the current methods, techniques and applications for teaching and evaluating foreign-language skills at various levels of instruction. Includes a demonstration of the use of textbooks, multimedia aids and language laboratory equipment and materials.

**GERM 482. Selected Topics. (1-4).****GERM 490. Independent Study. (1-4).**

Majors only. (on demand).

**GERM 492. Internship. (2-4).**

Majors only. (graded P/NC only) (on demand).

## Greek

(non major/minor)

### Courses

**GREE 325/326. Biblical Greek Language and Literature. (4,4).**

A beginning study of biblical Greek that builds a foundation in the essentials of grammar, vocabulary, and translation. Includes readings in Mark and Philippians, as well as (in the second semester) discussion of theological implications. (cross-listed with REL 325 & REL 326).

## Hebrew

(non major/minor)

### Courses

**HEBR 315/316. Biblical Hebrew Language and Literature. (4,4).**

A two-semester sequence of study leading to a reading knowledge of the Hebrew Bible/Old Testament. Basic Hebrew grammar and vocabulary are studied in conjunction with questions of cosmology, the understanding of history and the theological perspective of ancient Israel. Prerequisite: REL 100. (cross-listed with REL 315 & REL 316).

# Spanish

The goals of our Spanish program at CLU are proficiency in the language and a high degree of familiarity with Hispanic literature and culture. In order to achieve these goals, we offer a wide variety of courses, from language through literature, linguistics and culture.

Most of our majors and minors go into teaching, some into private industry and some into government service. Our program tries to address itself to the needs of these students by preparing them for an increasingly pluralistic and globally oriented society as well as a competitive career world. To that end and because language and literature are inseparable from a cultural context, our program has a strong cultural orientation. In all of our courses, we strive to develop in our students an understanding of as many aspects of Hispanic culture and civilization as possible in conjunction with the subject focused on. We also place a strong emphasis on developing students' critical thinking skills in all our courses and many are conducted in Spanish in order to develop students' proficiency in the language.

Spanish faculty use interactive lectures, group work, entertaining cultural activities, such as singing, video and film presentations, computer-aided presentations and exercises to give the students a well-rounded learning experience. A computer lab is available to enhance this experience outside the classroom.

In addition, students have the opportunity to participate in a variety of cultural activities on campus, such as the Dia de los Muertos and Las Posadas celebrations in the fall, as well as the Encuentros festival in the spring. They also can become members of the Spanish honor society, the National Collegiate Hispanic Honor Society, Sigma Delta Pi and participate in the Latin American Students Association.

We strongly encourage majors and minors in Spanish to study abroad. The Spanish Department sponsors a program in Guanajuato, Mexico, which provides students with an excellent opportunity to polish their language skills through immersion in the culture. Other opportunities to spend a semester or junior year abroad at any one of a variety of universities in Spain and Latin America are available through the CLU Study Abroad Program

## Bachelor of Arts in Spanish:

32 credits minimum, 32 credits upper division

SPAN 301	Conversation and Composition	4
SPAN 315	Spanish Literature and Society	4
SPAN 325	Spanish American Literature and Society	4
SPAN 401	Applied Linguistics and Grammar	4
SPAN 405	Latin-American Culture and Civilization Capstone (Capstone)	4
One Spanish 400-level course		4
Two Spanish upper division electives		8
Total Hours		32

At the discretion of the department, a relevant course in another discipline, such as POLS 443, may be substituted for the upper division elective. In addition, an oral proficiency exam is required before graduation.

## Minor in Spanish

12 credits minimum, 12 credits upper division taught in Spanish

SPAN 301	Conversation and Composition	4
SPAN 401	Applied Linguistics and Grammar	4
Any upper division literature, film or culture course		4
Total Hours		12

Students interested in teaching Spanish should refer to the Chair of the Spanish Department for information about the Spanish subject matter program. (See Education (p. 151))

## Courses

### Lower Division

#### SPAN 101/102. Elementary Spanish. (4,4).

A beginning study of the language. Introduces students to the essentials of grammar with basic skills of listening, speaking, reading and writing within a communicative cultural context. Prerequisite: SPAN 101: 0-2 years of high school Spanish; SPAN 102: SPAN 101 or 3-4 years of high school Spanish.

**SPAN 201/202. Intermediate Spanish. (4,4).**

Continuing development of the four communicative skills. Emphasis on vocabulary building and the use of Spanish in practical situations. Includes cultural and literary readings and a grammar review. Prepares students to move into advanced conversation and composition. Prerequisites: SPAN 201: SPAN 102 or equivalent or satisfactory score on proficiency exam; SPAN 202: SPAN 201 or equivalent or satisfactory score on proficiency exam. (SPAN 201 offered in fall; SPAN 202 offered in spring).

**Upper Division****SPAN 301. Conversation and Composition. (4).**

Intended to further the student's conversational ability, with emphasis on speaking and writing grammatically correct Spanish. Increased understanding of the Hispanic world through reading and discussion. Prerequisite: SPAN 202. Conducted in Spanish. (offered in fall).

**SPAN 303. Don Quijote and Modern Fiction. (4).**

This course is designed to trace the influence of Don Quijote on contemporary fiction and film. It will involve the study of the work itself as well as that of other select works from Western literature for comparison purposes, focusing on literary aspects as well as the historical, social and cultural context. Instructor's consent is required. Note: This class is offered in English and may not be taken for the Spanish minor. (cross-listed with HNRS 303).

**SPAN 305. Introduction to Literature in Spanish. (4).**

This course introduces students to the study of literature in Spanish through the reading of short literary texts. Students study literary terminology and methods of analysis and practice the analysis and discussion of literature in Spanish. Texts are selected from across literary periods from Spanish and Spanish-American authors. Conducted in Spanish.

**SPAN 315. Spanish Literature and Society. (4).**

Designed to familiarize students with major authors of Spanish literature from its beginning to present times. A study of selections viewed in their cultural and historical contexts will highlight the extent to which these authors were influenced by the ideology of their times and how their writings, in turn, relate to contemporary thought. Conducted in Spanish.

**SPAN 325. Spanish American Literature and Society. (4).**

Designed to familiarize students with major authors of Spanish American literature from its beginning to present times. A study of selections viewed in their cultural and historical contexts will highlight the extent to which these authors were influenced by the ideology of their times and how their writings, in turn, relate to contemporary thought. Conducted in Spanish.

**SPAN 361. Contemporary Chicano Literature. (4).**

Intended as a basic exploration of the literature of the Chicano people. This representative synthesis covers the principal genres of poetry, theatre, the novel, the short story and the essay. A historical framework establishes the different periods of Chicano creativity from its origins through the civil rights movement and to contemporary times. Note: This class is offered in English and may not be taken for the Spanish minor. (cross-listed with ENGL 361).

**SPAN 401. Applied Linguistics and Grammar. (4).**

This course provides students with phonetic, phonological, morphological and syntactic aspects of the Spanish language in its synchronic and diachronic contexts. Includes grammar, reading and writing and has a lecture and discussion format. Conducted in Spanish. (offered in spring).

**SPAN 405. Latin-American Culture and Civilization Capstone. (4).**

Intended to deepen student's knowledge of the development of the institutions of the Spanish-American peoples, and to improve their conversational ability. Includes lectures oral participation and oral and written reports. Conducted in Spanish (offered in spring).

**SPAN 461. Mexican Literature. (4).**

Critical study of selected representative readings from pre-Columbian writers/poets, through the novel of the Revolution to the present. Emphasis on socio-cultural contexts as well as the literary values of the texts. Conducted in Spanish.

**SPAN 463. Women Writers in Hispanic Literature. (4).**

Women have long contributed to the wealth of literary production in the Spanish language. This course profiles the writings of women from different parts of the Hispanic world and may include issues of gender, race and ethnicity. Conducted in Spanish.

**SPAN 470. Film in Spanish. (4).**

This course introduces students to important developments in cinema in the Spanish-speaking cultures. Different types of film are shown and analyzed from an aesthetic perspective and in relationship to Spanish and Spanish American history, literature, art and society. Conducted in Spanish.

**SPAN 482. Selected Topics. (1-4).****SPAN 490. Independent Study. (1-4).**

**SPAN 492. Internship. (1-4).**

## Learning Resources

(non major/minor)

### Courses

**LRN 101. College Skills Seminar-English. (1).**

A writing-based seminar for entering freshmen in which students develop learning skills and strategies necessary for academic success, with a special emphasis in writing. By invitation only.

**LRN 105. College Skills Seminar-Math. (1).**

A mathematics-based seminar for entering freshmen in which students develop learning skills and strategies necessary for academic success, with a special emphasis in mathematics. By invitation only.

**LRN 182. Selected Topics. (1-4).**

## Legal Studies(minor)

The legal studies minor provides an interdisciplinary study of the law and the legal process within a liberal arts framework. The minor provides an alternative approach to the study of law by drawing from courses in the social sciences, business and humanities. The minor addresses questions as to how social, political, philosophical and economic considerations influence and reflect these laws. The electives allow students to choose courses relevant to their legal interest in combination with a variety of other disciplines.

See Criminal Justice and Political Science for faculty and course descriptions.

### Minor in Legal Studies

20 credits minimum of which 12 credits must be upper division.

POLS/CRIM 105	Introduction to Law and Legal Process	4
Select four of the following:		16
BUS 374	Business Law	
COMM 405	Freedom of Communication	
COMM 406	Legal Issues & the New Media	
CRIM 276	Criminal and Procedural Law	
CRIM 404	Constitutional Law in Criminal Justice	
POLS 401	American Constitutional Law	
POLS 414	Environmental Law and Policy	
POLS 461	International Law and Organization	
POLS 481	Law and Society	
Any Independent Study or Selected Topic on law		
Total Hours		20

### Recommended Courses for Students Planning for Law School:

COMM 233	Argumentation & Advocacy	4
ENGL 301	Academic Research and Writing	4
PHIL 220	Logic	4
POLS 322/	Modern Political Thought	4
Total Hours		16

# Liberal Studies

The Liberal Studies major is designed to prepare students to teach elementary school and earn a multiple subject California preliminary teaching credential. There are three pathways to achieve these goals:

## The Traditional Program

The traditional Liberal Studies Program consists of four years to earn a degree and two semesters of Graduate Teacher Preparation to secure a California preliminary credential. Standard admission procedures apply. Transfer students are welcome.

## Bachelor of Arts in Liberal Studies

(86-90 units)

### Language and Literature

ENGL 111	Critical Reading and Writing	3
ENGL 312	The Teaching of Writing	3
ENGL 316	First and Second Language Acquisition	4
ENGL 335	Children's Literature	3

### History/Social Science

HIST 101	World Civilization to 1500	4
HIST 121	United States History to 1877	4
HIST 345	California History	4

### Psychology

PSYC 200	General Psychology	4
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### Mathematics

MATH 120	Algorithms for Arithmetic	2
MATH 128	Topics in Liberal Arts Math	4

### Technology

EDTP 563	Microcomputers in Education	3
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### Science

BIOL 111/111L	Principles of Biology and Principles of Biology Lab	4
GEOL 111/111L	Physical Geology and Physical Geology Lab	4
PHYS 110/110L	Physical Science for Liberal Art Majors and Physical Science for Liberal Arts Majors Lab	4

### Bisual/Performing Arts

ART 341	Visual Arts in Education	3
MUS 103	Music for Classroom Teachers	3
TA 440	Creative Dramatics for Children and Youth	3

### Physical Education/Health

EXSC 354	Elementary School Physical Education	4
EDUC 362	Career Decisions in Education	3
EDUC 492	Internship	1
EDTP 500	Social and Cultural Foundations in Education	3
EDTP 508	Students With Diverse Learning Needs	3

### Capstone

LIBA 402	Theories of Teaching and Learning - Capstone	3
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### Concentrations

English, Art, Theatre Arts, Music, American Studies, Math, Ancient Civilizations, Environmental Science or Exercise Science	12-16
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Total Hours	88-92
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## Courses

### **LIBA 325. Liberal Studies Seminar. (2).**

This course is required of all liberal studies majors at CLU who have completed three semesters in the ADEP liberal studies program. Successful completion of this course will partially fulfill the elementary subject matter competence requirement. Students will also be introduced to the California Academic Content Standards for K-6 and the Teacher Performance Expectations (TPE) required in all teacher preparation programs.

### **LIBA 402. Theories of Teaching and Learning - Capstone. (3).**

This course is required of all liberal studies majors. Students will also explore theories of teaching, learning, the assessment of learning and the influence of those theories on content, methods and classroom environment, including the use of technology and their application in improving academic achievement for all students. Fieldwork required. Prerequisite: PSYC 200.

### **LIBA 482. Selected Topic. (1-4).**

### **LIBA 490. Independent Study. (1-4).**

## Marketing Communication

The 21st Century business community faces unprecedented challenges in a highly competitive global economy. Industry leaders know that effective communication – particularly marketing communication – will be at the center of every profitable enterprise. California Lutheran University's multitalented marketing communication graduates currently work as marketing communication department managers, marketing representatives, and trade negotiators for both private corporations and government agencies.

CLU's marketing communication major prepares students for business and trade relations in an international marketplace by introducing them to the latest communication technology and teaching them how to craft effective messages on behalf of companies whose products and services they represent. CLU graduates have gained the ability to research, plan, organize and direct internationally focused marketing campaigns and have acquired the interpersonal skills needed to move into upper management. A mandatory internship enables students to put valuable, real-world experience on their resumes. CLU students have interned in marketing communication departments at Amgen, Baja Fresh, J.D. Power & Associates, HBO, Caruso Affiliated Holdings, KZLA-FM and NBC Press and Publicity.

Development of a marketing communication degree was suggested by a business community experiencing difficulties in locating qualified job candidates to head up marketing communication departments – the hub around which production, sales, advertising, marketing and public relations revolve. Industry leaders expressed a specific interest in future employees who could be practical as well as creative; who were equipped with both business savvy and artistic know-how; who were skilled at coordinating the efforts of others, yet capable of coming up with winning market strategies as well.

Benefiting from the input of the corporate community, California Lutheran University was able to offer the first marketing communication degree in the nation. CLU graduates are succeeding because of the preparation they receive in managing million-dollar budgets, their proficiency at both oral and written communication, and their ability to produce messages for a wide variety of media.

See Business Administration (p. 117) and Communication (p. 130) for faculty and course descriptions.

## Bachelor of Arts in Marketing Communication

42 credits minimum, 24 credits upper division

COMM 101	Introduction to Mass Communication	4
COMM 231	Writing for the Mass Media	4
COMM 300	Research Methods	4
COMM 375	Principles of Marketing	4
COMM 401	Communication Theories-Capstone	4
COMM 490 or COMM 492	Independent Study Internship	2-4
BUS 251 or BUS 255	Principles of Accounting Environment of Business	4
Select one of the following:		4
COMM 301	Persuasive Communication Campaigns	
COMM 342	Public Relations	
COMM 380	Principles of Advertising	
COMM 442	Advertising Campaigns	
Select one of the following:		4

COMM 344	Copywriting/Storyboarding in Broadcast Advertising	
COMM 348	Website Design and Publishing	
COMM 411	Sports-Related Marketing	
COMM 443	Event Planning and Management	
COMM 450	Advanced Public Relations	
Select two of the following:		8
BUS 342	Marketing Research/Consumer Behavior	
BUS 430	Integrated Marketing Communication	
BUS 440	Marketing Simulations	
BUS 445	Marketing and Management of Services	
BUS 447	Social Marketing	
BUS 473	Marketing Management	
BUS 474	International Marketing	
BUS 482	Selected Topics	
Total Hours		42-44
Recommended But Not Required:		
COMM 208	Beginning Cinema Production	4
COMM 233	Argumentation & Advocacy	4
COMM 306	Business and Professional Communication	4
COMM 315	Small Group Communication	4
COMM 335	Interpersonal Communication	4
COMM 405	Freedom of Communication	4
Total Hours		24

## Courses

### Lower Division

#### **COMM 101. Introduction to Mass Communication. (4).**

A preliminary study of communication theory with particular emphasis on mediated communication, including Internet, television, radio, film and print.

#### **COMM 103. Beginning Public Speaking. (3).**

The study of the theory and practice of various forms of oral communication, including informative speaking oral interpretation, small-group communication and persuasion.

#### **COMM 104. Voice Development for Broadcasting, Film And Communication Industries. (4).**

This course will enable students to develop voice acting skills, which can be applied to broadcasting, instructional film, animation, commercials and documentaries. The course will also provide an introduction to the history of the voice acting field and will provide information about professional opportunities. (cross-listed with TA 104).

#### **COMM 161. Beginning Sign Language. (3).**

An introduction to the study of American Sign Language.

#### **COMM 200. Survey of Broadcasting and New Media. (4).**

A survey of the broadcasting, cable and other broadband media including the Internet; an introduction to the socio-cultural, legal/regulatory, economic, competitive and technological environment, with emphasis on programming, advertising, audience research and other management issues in the context of digitalization of media.

#### **COMM 207. TV Production I. (4).**

Learn the basics of television production including the operation of the camera, lights and studio equipment. Study the mechanics and techniques of video production. Each student will direct one scene from a television script. Student will learn to mark the script, work with the actors and produce a scene switched live for television.

**COMM 208. Beginning Cinema Production. (4).**

Exploring the cinematic medium in production. The students will learn basic techniques of photography and editing. The class will shoot a group project on film and edit digitally. Each student will also make a short film using Mini DV.

**COMM 221. Popular Culture. (4).**

An introduction to important readings on popular culture from the perspectives of sociology and communication studies. The study of popular culture takes the forms, content, values and norms of popular culture products as data for analysis and critique. Students will focus on mass communication forms of popular culture such as movies, advertisements, television shows, magazines, music and music videos. This course will focus on the period from 1945 to the present. (cross-listed with SOC 221).

**COMM 231. Writing for the Mass Media. (4).**

Instruction and practice in reporting varied news stories for print and electronic media; a writing-intensive introduction to reporting; techniques of interviewing news sources; story structure, consistent/concise editing style with clarity and speed; and writing with accuracy and fairness. Prerequisite: ENGL 111.

**COMM 233. Argumentation & Advocacy. (4).**

The study and practice of argumentation, emphasizing interactive critical thinking skills, including analysis, research and evidence, case construction, refutation, and visual and other forms of symbolic influence; diverse fields of argumentation and advocacy considered including law, politics, organizations, mass media, entertainment, interpersonal, and intercultural relations. (cross-listed with POLS 233).

**COMM 285. Travel Seminar. (1).**

## Upper Division

**COMM 300. Research Methods. (4).**

This course is designed to introduce research methods used in the field of communication and in social science in general. It examines how research is planned & designed, explores both quantitative & qualitative methods, introduces students to processes of data collection & analysis, & gives them experience in conducting original research.

**COMM 301. Persuasive Communication Campaigns. (4).**

A study of the principles of persuasive communication including an analysis of factors influencing persuasion in platform address, advertising argumentation, interpersonal and mediated communication including historical developments in theories applicable to the field and techniques adapted to the Internet. Students learn techniques of planning, implementation and evaluation of commercial, political and social/public service campaigns.

**COMM 304. Radio Industry. (4).**

This class is a broad survey class that covers history, production techniques, times sales, formats, commercial copy, news writing and voice-over. The goal is to prepare the student who desires employment in the radio industry.

**COMM 306. Business and Professional Communication. (4).**

A study of the principles involved in communicating in a professional environment. Includes techniques of interviewing, small-group communication, role playing and exercises designed to improve communication skills. Students have several opportunities for practical application of oral communication principles in simulated settings.

**COMM 307. Screenwriting. (3).**

An introductory course on the craft of writing for feature film. Emphasis is on narrative storytelling for the screen, understanding film grammar and the tools of the screenwriter from basic three-act structure to characterization. In a workshop approach, students will develop their own story premise, treatment, outline and the first draft of their first act screenplay. Orientation is on the commercial film markets as we will be screening many classic and contemporary films as well as reading several screenplays for analysis.

**COMM 308. Politics in Cinema. (4).**

Explores the political nature of cinema and the ways in which political culture, issues and themes are expressed in and through cinema. Particular emphasis is placed on American political culture and practices. (cross-listed with POLS 308).

**COMM 309. Advanced Cinema Production. (4).**

Students will write, produce, direct and edit a 10-20 minute short narrative or documentary film with the purpose of submitting it to student film festivals across the country. Students will attend advanced workshops in editing and lighting. Prerequisite: COMM 207 or COMM 208.

**COMM 311. Intercultural Communication. (4).**

In a multicultural, globalized world made smaller and flatter by high-speed transportation and virtually instantaneous information and communication technologies, the likelihood of direct or mediated contact with people, images and stories from other cultures here and abroad has grown in spectacular fashion. At the same time, our ability to navigate through these cultural contacts has failed to keep pace with the technologies that enable them. In both business and leisure settings, individuals often find themselves faced with different values, customs, practices and material situations that leave them with feelings of cultural incompetence, discomfort and frustration. In some cases, the results may even include hostile conflict at the level of organizations, social institutions, ethnic groups or nations. In almost all cases, intercultural communications, communication across cultures, has failed those involved.

**COMM 315. Small Group Communication. (4).**

A study of the types of group discussion with opportunity for student participation. Special emphasis is placed on an examination of group interaction as it relates to discussion.

**COMM 333. Working on the Echo. (2).**

Practical working experience on the University's student newspaper includes reporting, editing, photography, desktop publishing and business management. May be taken four times for credit. All majors are welcome. Prerequisite: COMM 231.

**COMM 334. iCLU. (2).**

Practical working experience on the University's student-run radio station. May be taken four times for credit. All majors welcome. Prerequisite: Audition, board test and permission of the faculty advisor.

**COMM 335. Interpersonal Communication. (4).**

A study of dyadic communication focusing on real-life contexts. Emphasis on learning about self, romantic/friendship relationships, family, conflict and gender/ethnic dynamics.

**COMM 342. Public Relations. (4).**

The development of public relations theories and practice. Includes principles and methods for audience, media and message analysis; writing for business, industry and nonprofit organizations; and creating and assessing effective forms of public relations and communications. Prerequisite: COMM 231.

**COMM 344. Copywriting/Storyboarding in Broadcast Advertising. (4).**

Designed as a "hands-on" communication and business course, this course provides an overview of broadcast media and develops skills in basic advertising/public relations campaign production techniques including scripting, copywriting and storyboarding. (cross-listed with BUS 344).

**COMM 346. Copyediting, Layout and Design. (4).**

The first half of the course emphasizes not only fundamental rules of grammar, punctuation and spelling but also use of AP style and macrolevel editing issues of clarity, concision, thoroughness and fairness. The second half emphasizes computer-assisted layout and design. Prerequisite: COMM 231.

**COMM 348. Website Design and Publishing. (4).**

Hands-on introduction to designing, creating and uploading Web sites and to finding and evaluating resources and information on the Web. Skills taught include Web site creation in raw HTML, use of tables and frames, inclusion of image and sound, and inclusion of pre-existing Javascripts. No programming experience required, basic familiarity with computers desirable.

**COMM 361. Intermediate Sign Language. (3).**

Continuing studies in American sign language. Prerequisite: COMM 161.

**COMM 375. Principles of Marketing. (4).**

The study of marketing methods and practices. Topics include policies and problems related to consumers, pricing, advertising, management information systems and distribution and management of the marketing function. (cross-listed with BUS 375).

**COMM 380. Principles of Advertising. (4).**

An exploration of advertising from an integrated marketing communications perspective. Focus is on general principles and broad perspectives with particular emphasis on strategy and the role of advertising in an integrated program. Students will examine consumer motivation, planning and development, the creative process and campaign execution and evaluation. (cross-listed with BUS 380).

**COMM 401. Communication Theories-Capstone. (4).**

An advanced study of communication theories based on professional literature. Theories are drawn from a variety of disciplines, including psychology, sociology, linguistics and anthropology, which allow the student to study communication phenomena from a variety of competing and complementary perspectives. Students also study the scientific method and the relationship between theory and research. Course assignments include completion of a major research paper and presentation of portfolio project.

**COMM 402. Film Theory (capstone, Film and Television Production Concentration). (4).**

An advanced study of film theory based on professional literature. The course teaches students to analyze and understand cinema in terms of classical film theories as well as structuralism, semiotics, narrative theory, cognitive theory, feminism, postmodernism and queer theory, among others. Course assignments include completion of a major research paper.

**COMM 404. Broadcast Sports Production. (4).**

The course will teach students to create live and tape-delayed sports broadcasts for CLUTV (Channel 16) and Educational Television for the Conejo Valley (Channel 20). Prerequisites: COMM 207 or COMM 208.

**COMM 405. Freedom of Communication. (4).**

A study of the limits placed on freedom of expression in the United States. Through examining leading U.S. court decisions and relevant statutes, students will learn the broad principles and legal reasoning underlying First Amendment jurisprudence, including the legal, philosophical and political issues entailed in the rights of free expression. Students will then examine how these principles have been applied to the regulation of the various communication industries including the print media, broadcasting and cable television. (cross-listed with POLS 405).

**COMM 406. Legal Issues & the New Media. (4).**

A study of the law and policy governing the various communication industries, including the print media, broadcasting, cable television, direct broadcast satellites and the Internet.

**COMM 407. Broadcast News Production. (4).**

Create live news broadcasts every two weeks for CLUTV (Channel 16) and Educational Television for the Conejo Valley (Channel 20). Learn to write, shoot and edit news stories. In the class, you will be the producer, director and anchor for CLUTV news. Emphasis will be placed on advanced editing skills. Prerequisite: COMM 207 or COMM 208.

**COMM 411. Sports-Related Marketing. (4).**

An introduction to management and marketing issues in the sports industry, with a particular emphasis on major and minor league professional sports. Students will receive a broad overview of the structure of sports and its relationship to the dominant culture, the economy and the media. (cross-listed with BUS 411).

**COMM 442. Advertising Campaigns. (4).**

Advances the principles learned in introductory advertising and marketing courses and includes the application of principles learned through the completion of an actual consumer-oriented marketing/advertising campaign. Includes lecture and lab. Prerequisites: COMM 375 or COMM 380, senior standing. (cross-listed with BUS 442).

**COMM 443. Event Planning and Management. (4).**

The study of the theory and practice of various forms of event planning and management. The class will be using a hands-on approach to delve into this wonderful field and will include lessons on budget, décor, entertainment, types, and security issues. (cross-listed with BUS 443).

**COMM 450. Advanced Public Relations. (4).**

Students strengthen their command of the processes and techniques of public relations and apply them strategically to real-world PR stations. They apply the full process of public relations management, including research and analysis, planning, implementation, and control and evaluation, while producing a strategic PR plan and professional media kit. They role-play crisis communications planning and response in an emergency PR exercise. Ethical considerations in PR management are examined; the impact of current PR practices on individuals and society are critically evaluated. Prerequisite: COMM 342. (cross-listed with BUS 450).

**COMM 461. Advanced Sign Language. (3).**

Advanced studies in American Sign Language. Prerequisite: COMM 361.

**COMM 482. Selected Topics. (1-4).**

**COMM 485. Travel Seminars. (1-4).**

**COMM 490. Independent Study. (1-4).**

This course is used to evaluate a senior project if an appropriate internship is unavailable.

**COMM 492. Internship. (1-4).**

The student finds an internship appropriate to his or her career choice to fulfill the communication requirement. Contracts are available at the Career Services Center. (graded P/NC only).

## Mathematics

A degree in mathematics is an excellent means of preparation for post-college years, whether a student intends to work in business or industry, teach, or pursue graduate studies. At CLU we provide a broad and challenging program designed to develop fundamental skills and to prepare students for lifelong learning. The program features small classes with an emphasis on faculty-student interaction, classroom technology to facilitate learning, computer labs for student exploration and discovery, and a focus on interdisciplinary applications. Faculty mentors assist students in reaching their academic and career goals. Students are challenged to explore the many facets of mathematics and its applications through creative and critical thinking. Free tutoring for lower division courses is provided in the math lab; the lab also serves as a study and resource area for majors.

The faculty encourage students to apply their mathematical knowledge by participating in internships, carrying out independent projects, and tutoring in the math lab. Students synthesize and extend their mathematical experiences in the senior capstone course. Other opportunities include participating in paid summer research programs across the nation, spending a semester studying mathematics abroad, preparing for and competing in national mathematics-related contests, and preparing posters and presentations for seminars and regional or national conferences.

Employers in the public and private sectors seek generalists with critical thinking skills who are capable of adapting to a wide variety of situations. Graduates in mathematics are prepared in this manner and can work in many career fields. These include computer science, engineering, actuarial science, education, business, finance and the natural sciences. Along with finding excellent employment opportunities, CLU math majors have also been accepted for graduate studies at top universities throughout the United States.

Students who wish to register for a mathematics course must meet the necessary prerequisites, as stated in the Schedule of Classes. Students unsure of whether they meet the prerequisites should contact a mathematics faculty member. Courses numbered 400 and above are best taken after or concurrently with a 300-level course.

All CLU students are required to meet the Mathematical Reasoning Proficiency under Core 21. Students who meet the proficiency requirement may still need to meet specific mathematics requirements for their majors

## Major Requirements

Only mathematics courses numbered 200 or above earn credit toward a major in mathematics.

## Bachelor of Science in Mathematics

45 credits minimum, 25 credits upper division.

MATH 241	Discrete Mathematics	4
MATH 251 or MATH 245	Calculus I (preferred) Applied Calculus	4
MATH 252	Calculus II	4
MATH 261	Calculus III	4
MATH 320 or MATH 382	Elementary Mathematical Analysis Number Theory	4
MATH 420 or MATH 425	Real Analysis Abstract Algebra	4
One 4-credit elective (upper or lower division)		4
Four 4-credit upper division mathematics classes (one class may be 3-credits instead)		15-16
MATH 475	Capstone	2
Total Hours		45-46

## Required Supporting Courses

PHYS 211/211L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab	5
PHYS 212/212L	Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab	5
<b>Computer Programming course at the 200-level or above (choice must be approved by Math Advisor)</b>		
CSC 210 or CSC 205	Introduction to Computer Programming Programming for Scientists	4
Total Hours		14

## Recommended Supporting Courses

MATH 474	Capstone Preparation (strongly recommended)	2
CHEM 151/151L	General Chemistry and General Chemistry Lab	5
CHEM 152/152L	General Chemistry II and General Chemistry II Lab	5
Total Hours		12

## Bachelor of Arts in Mathematics

41 credits minimum, 21 credits upper division.

MATH 241	Discrete Mathematics	4
MATH 251	Calculus I (preferred)	4
or MATH 245	Applied Calculus	
MATH 252	Calculus II	4
MATH 261	Calculus III	4
Take at least two of the following three courses		8
MATH 320	Elementary Mathematical Analysis	
MATH 381	Geometry	
MATH 382	Number Theory	
One 4-credit math elective (upper or lower division)		4
Three additional 4- credit upper division mathematics classes (one of which may be only 3-credits)		11-12
MATH 475	Capstone	2
Total Hours		41-42

## Required Supporting Courses

One mathematical perspectives course (can be a Math upper division elective, must be approved by Math advisor)	3-4	
Complete one of the following two course sequence options	9-10	
<b>Physics Option</b>		
PHYS 211/211L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab	
PHYS 212/212L	Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab	
<b>Economics Option</b>		
ECON 203/203L	General Economics and General Economics Lab	
One of the following 400-level Economics classes		
ECON 406	Intermediate Macro-Economics	
ECON 411	Intermediate Microeconomics	
or ECON 450	Econometrics	
Total Hours		12-14

## Recommended Supporting Courses

MATH 474	Capstone Preparation (Strongly Recommended)	2
A course in Computer Programming at the 200-level or above		3-4
CSC 210	Introduction to Computer Programming	
or CSC 205	Programming for Scientists	
CHEM 151/151L	General Chemistry and General Chemistry Lab	5
CHEM 152/152L	General Chemistry II and General Chemistry II Lab	5
Total Hours		15-16

## Minor in Mathematics

20 credits minimum, 8 credits upper division.

Only mathematics courses numbered 200 or above earn credit toward a minor in mathematics. Either MATH 245 or MATH 251 (preferred) may be counted toward the minor, but not both.

MATH 251	Calculus I	4
or MATH 245	Applied Calculus	
MATH 252	Calculus II	4
Two 4-credit upper division mathematics classes		8
Select one of the following:		4
MATH 241	Discrete Mathematics	
MATH 261	Calculus III	
MATH 265	Differential Equations	
4-credit upper division mathematics class		
Total Hours		20

## Requirements for the Mathematics Single Subject Program

Students considering a career as a teacher of mathematics in a California high school or middle school should consider completing the CLU Mathematics Single Subject Program which is an approved subject matter program for the California Commission on Teacher Credentialing. Completion of this program allows a student to enroll directly in a teaching credential program upon graduation. Program requirements most closely match the B.S. in Mathematics degree, include an entrance interview after completing Calculus II, and a portfolio defense at the end. Students interested in entering the program should discuss program requirements with the director of the Mathematics Single Subject Program.

## Honors in Mathematics

### ***Nomination Process***

Students interested in completing Departmental Honors must be nominated by a Math faculty member prior to their final year. This normally will occur three semesters before graduation, but might occur two semesters before. In order to be eligible for nomination a student must satisfy all three of the following requirements:

1. A Math GPA of at least 3.5 with no semester grade below a B in any upper division Math course,
2. An overall GPA of 3.0,
3. 2 upper division Math courses either *completed or in progress*.

### ***Selection Process***

Once nominated, a student takes MATH 474 Capstone Prep and develops a proposal for an Honors Project. The project proposal must follow the guidelines for Capstone in Mathematics projects but must be for a year-long project that holds the promise of completing publishable results. After the oral and written project proposals have been reviewed, the Math faculty will determine if a student's project is worthy of being selected as an Honors project. Moreover, by the time the candidate is selected he/she must also have *completed* at least 2 Upper Division Math courses with a grade of B or higher in both, and have at least 1 additional upper division Math course *completed or in progress*.

### ***Completion of Departmental Honors***

To complete Departmental Honors students must successfully pass all of the following courses:

- MATH 474 - Capstone Prep --2 credits (taken spring of Junior year)
- MATH 475 – Capstone--2 credits (taken fall of Senior year)
- MATH 497 - Honors Research--3 credits (taken Spring of Senior year)

This is equivalent to one year of mentored research experience, plus one semester of research preparation in the Capstone Prep course. The final project will be presented in three venues: a written thesis, an oral presentation, and a poster presentation. The advisor in conjunction with Math faculty will review the project at the end of the Capstone course to determine if the student may proceed with the Honors Research course. At the end of the Honors Research course they will again confer to determine if the project meets the standards of an honors project.

## Courses

### Lower Division

#### **MATH 110. Intermediate Algebra. (4).**

This course covers equations and inequalities, polynomials, rational and radical expressions, exponents, graphing linear equations and inequalities, linear systems, exponential and logarithmic functions, and places extensive emphasis on word problems. This course is appropriate for students with Math SAT 500 or below.

#### **MATH 115. Finite Mathematics. (4).**

This course studies the elementary models in business and social sciences including systems of linear equations and inequalities, matrices, interest, annuities and an introduction to probability and statistics. Recommended for business and social science majors. Prerequisite: MATH 110 or Math SAT 510 or above.

#### **MATH 120. Algorithms for Arithmetic. (2).**

This course is designed for the prospective elementary school teacher, and emphasis is on understanding the deep mathematical ideas necessary for superb teaching of elementary school mathematics. Communication and group work are expected. Topics include number sense, representations of numbers, number systems, creating and analyzing algorithms for arithmetic operations, recognition and analysis of patterns, problem solving, algebraic thinking, and issues of access and pedagogy. Prerequisite: MATH 110 or Math SAT 510 or above.

#### **MATH 128. Topics in Liberal Arts Math. (4).**

This course engages the students in an exploration of the nature of mathematics as well as a selection of mathematical topics chosen to illustrate why mathematics is one of the original liberal arts. An emphasis is placed on problem solving and communication of ideas through writing and class discussions. The nature of mathematics as well as two-, three- and four-dimensional geometry, and probability and statistics will be included each semester. Other topics will be chosen by the instructor. Prerequisite: MATH 110 or Math SAT 510 or above.

#### **MATH 145. Business Mathematics. (4).**

This course studies the elementary models of mathematics in business settings including the use of functions to model concepts such as revenue and profit, as well as interest and annuities. Additional topics include linear regression, decision trees, and an introduction to probability and statistics. Recommended for Business majors. Prerequisite: MATH 110 or Math SAT 500 or above.

#### **MATH 151. Precalculus. (4).**

This course studies real numbers, equations, inequalities and polynomial, rational, exponential, logarithmic and trigonometric functions. Prerequisite: MATH 110 or Math SAT 510 or above.

#### **MATH 231. Biostatistics. (4).**

This course introduces the principles, methods of reasoning, summarization, analysis and presentation of biological and biomedical data. Computer laboratory sessions are included to facilitate data handling and analysis. Topics include sampling and experimental design, descriptive statistics, probability, statistical inference and interpretation of results, simple regression and clinical trials. Prerequisite: MATH 151 or Math SAT 600 or above. (offered in spring).

#### **MATH 241. Discrete Mathematics. (4).**

Topics include set theory, number systems, the nature of proofs, recursion, algorithms, graph theory and problem solving. This course is required for computer science and computer information systems majors. Prerequisite: MATH 151 or Math SAT 600 or above. (offered in fall).

#### **MATH 245. Applied Calculus. (4).**

This course examines methods of mathematics used in business and economics, with a focus on problem solving and applications. It includes the ideas of differential calculus, including applications to marginal analysis (cost, revenue, profit), the elasticity of demand, and optimization. Concepts of integration up through substitution are included. Optimization is further examined through systems of linear equations and matrices, linear programming and a brief introduction to game theory. Required for Business Majors. Prerequisite: MATH 115, MATH 145 or Math SAT 600 or above.

#### **MATH 251. Calculus I. (4).**

Studies the concepts of the limit, the derivative and the definite integral of functions of one variable. Included are applications to rates and areas, differentials and basic modeling. A weekly computer lab is a key component of the course. Prerequisite: MATH 151 or Math SAT 600 or above.

#### **MATH 252. Calculus II. (4).**

This course continues the study of differentiation and integration begun in Calculus I. Introduces indefinite integration and applications of the definite integral. Differential equations and elementary methods to solve them are presented, along with direction fields and some modeling applications. Includes Taylor polynomials and series. A weekly computer lab is a key component of the course. Prerequisite: MATH 251.

**MATH 261. Calculus III. (4).**

Calculus III extends the concepts of calculus to a multivariable perspective. Topics such as functions, derivatives, integrals and various coordinate systems are used to explore change modeled by two or more variables. Vector algebra and vector fields are introduced to study the motion of objects. A weekly computer laboratory session facilitates exploration, visualization and reinforcement of the main topics of the course. Prerequisite: MATH 252. (offered in fall).

**MATH 265. Differential Equations. (4).**

Focuses on the formulation of appropriate mathematical models to represent phenomena, the solution (when possible) of such equations, and understanding and interpreting the solutions of these equations. Graphical and analytical methods will be explored, as will numerical techniques. Prerequisite: MATH 252. Recommended: MATH 261. (offered in spring).

**MATH 282. Selected Topics. (4).**

## Upper Division

**MATH 320. Elementary Mathematical Analysis. (4).**

An introduction to mathematical analysis emphasizing conjecture and proof. Content includes elementary logic and quantifiers, manipulations with sets, relations and functions, properties of the real number system, supremums and infimums, sequences and limits of sequences, and the topology of the real line. The course will introduce students to the concepts and techniques of mathematical proof. Prerequisite: MATH 252, Recommended: MATH 241.

**MATH 343. Linear Algebra. (4).**

An introduction to solving systems of linear equations through the use of concepts such as vector spaces, linear transformations, matrices, eigenvalues and eigenvectors. Students will enhance mathematical communication skills through reading and writing proofs and will explore interdisciplinary applications of the theory of linear algebra in projects and computer laboratory assignments. Prerequisite: MATH 252. Recommended: MATH 261.

**MATH 352. Probability and Statistics I. (4).**

This course covers topics including methods of data description, probability theory, a study of several discrete and continuous distributions, the central limit theorem, estimation of parameters, confidence intervals and hypothesis testing. Prerequisite: MATH 252. Recommended: MATH 261.

**MATH 381. Geometry. (4).**

This course primarily investigates the integration of geometries on the plane, sphere and hyperbolic plane. An emphasis is placed on experiencing the meanings in the geometry. Student investigations, small-group learning and writing assignments will be used to explore geometrical ideas. The history and culture of mathematics, particularly as reflected by the development of geometrical understanding, will be threaded through the course. Prerequisite: MATH 252. Recommended: MATH 261 and MATH 343.

**MATH 382. Number Theory. (4).**

This course focuses on the properties of integers and the history of the discovery of these properties. Topics include fundamental theorems on divisibility, primes and congruences, as well as number-theoretical functions, Diophantine equations, quadratic reciprocity and Fermat's Last Theorem. This course will introduce students to the concepts and techniques of mathematical proof. Prerequisite: MATH 252 or consent of instructor. Recommended: MATH 241.

**MATH 420. Real Analysis. (4).**

A study of the real number system, set theory, sequences, functions, continuity, differentiation and Riemann-Stieltjes integration, with an emphasis on developing the ability to communicate mathematically. Prerequisite: MATH 261 and either MATH 382 or MATH 320 (preferred).

**MATH 425. Abstract Algebra. (4).**

Studies the theory of integers, groups, rings, fields and polynomials. Prerequisite: MATH 241 and either MATH 382 (preferred) or MATH 320.

**MATH 440. Mathematical Methods of Physics. (4).**

Mathematics with a focus to meet the needs of students with a major or minor in physics or engineering disciplines. Topics include: complex variables, linear algebra, coordinate transformations, vector analysis, Fourier series and transforms; Laplace transforms, the Dirac delta function, Green functions, calculus of variations and solution techniques for partial differential equations with specific applications to Laplace's equation. Prerequisites: MATH 261 and PHYS 212. Recommended: MATH 265. (Cross-listed with PHYS 440).

**MATH 450. Complex Analysis. (4).**

Topics include complex numbers and functions, analytic functions, differentiation, integration, series, contour integrals and conformal mapping. Prerequisite: MATH 261 and one other upper division mathematics course.

**MATH 452. Probability and Statistics II. (4).**

This course extends the concepts of probability and statistics through a multivariable perspective. Students study statistical models through topics such as experimental design, regression, analysis of variance, contingency tables and order statistics. Data handling and analysis are conducted with the aid of statistical software. Prerequisites: MATH 261 and MATH 352.

**MATH 471. Mathematical Modeling. (4).**

A speaking-intensive introduction to modeling techniques, synthesizing concepts and methods learned in previous courses. Applications will be chosen from various disciplines (particularly science, social science, business and education), environmental resource issues and scheduling/allocation. Techniques used will include computer simulation, game theory, difference equations and/or differential equations and probabilistic models or statistical models. Prerequisites: MATH 265. Recommended prerequisites: MATH 352 and a course in computer programming.

**MATH 474. Capstone Preparation. (2).**

Whether in industry, graduate school, or in your capstone project, skills in formulating answerable questions, identifying relevant sources, and locating helpful ideas is important. This course investigates the diversity of mathematical topics, skills for researching the topics, and the components of a project proposal. The course culminates in a written and oral presentation of a project proposal. Prerequisite: Mathematics major or minor and Junior standing. (offered in spring).

**MATH 475. Capstone. (2).**

The capstone in mathematics is intentionally open-ended. The focus of the course centers on the mathematics majors designing and carrying out individual projects suited to their interests and post-graduation goals. Weekly class meetings will be run in seminar fashion: each student will be expected to present at least one report on a) the culture of mathematics, b) the relationship between mathematics and other disciplines or career avenues or c) a moral/ethical issue related to mathematics. Prerequisite: senior standing.

**MATH 482. Selected Topics. (1-4).****MATH 485. Seminar. (2-4).****MATH 490. Independent Study. (1-4).****MATH 492. Internship. (1-4).**

(graded P/NC only).

**MATH 497. Honors Research. (3).**

## Multimedia

Ideas become reality in the Multimedia Department. Students learn the theory and practice of how a single premise is developed into a creative concept and practically applied across multiple mediums: the Internet, graphic design, digital cinema, immersive experiences, animation and digital games. We create a supportive and engaging environment where storytelling and commerce, art and computer science, cultural analysis and animation, students and faculty collaborate to produce exciting new works in dynamic media.

California Lutheran University's Core-21 grounds the student in the liberal arts. The multimedia core courses and classes drawn from the entire University curriculum enhance that foundation. These include classes in art, theater, music, communication, business, computer science and education.

The multimedia major leads to a bachelor of arts degree in one of these concentrated areas:

- Internet
- Graphic Design for Multimedia
- Digital Cinema for Multimedia
- Digital Games
- Visual Effects
- 3D Animation

Each student acquires a fundamental creative, technical and administrative competency across these disciplines. They invent and develop ideas into concepts, characters and stories. They acquire cross platform computer skills and in depth knowledge of software applications. They also learn essential interpersonal skills and a collaborative attitude to function well in a professional, team oriented business environment.

Moving beyond media literacy, our students understand the theories and processes behind media production and learn the tools and techniques to create and develop entire media franchises. Fulfilling the university mission of cultivating creative global citizens, they have the potential to become the next generation of global entrepreneurs: inventive, passionate, ethical and a stimulating force for good in the world.

This program allows students to experience success by achieving excellence. This is sound preparation for careers in a broad range of media fields including:

- animation
- concept design
- computer games
- creative development
- digital cinema
- directing
- e-commerce, gaming
- high definition (HD) and interactive television production
- project management
- Web development
- visual effects

The degree also serves as a springboard for advanced degrees in their fields.

## Bachelor of Arts in Multimedia

62 credits minimum, 36 credits upper division.

All multimedia majors must declare an emphasis from the following:

### Graphic Design/Print

MULT 100	Introduction to Multimedia	4
MULT 202	Media Theory, History and Creative Dev	4
MULT 204	Intermediate Multimedia	4
MULT 300	Advanced Multimedia I	4
MULT 301	Advanced Multimedia II	4
MULT 350A	Professional Internship	4
MULT 350B	Professional Internship	4
MULT 475	Capstone A	4
MULT 476	Capstone B	4
MULT 140	Multimedia Community	1
MULT 141	Multimedia Community	1
MULT 240	Multimedia Community	1
MULT 241	Multimedia Community	1
MULT 340	Multimedia Community	1
MULT 341	Multimedia Community	1
MULT 440	Multimedia Community	1
MULT 441	Multimedia Community	1
Select two of the following:		2
MULT 302	2D Animation: Tools and Techniques	
MULT 312	Flash/Action Scripting: Tools and Techniques	
MULT 313	Advanced Programming for Game Development	
MULT 318	Digital Sound: Tools and Techniques	
Select two of the following:		6
ART 280	Design	
ART 236	Digital Photography	
ART 435	Advanced Photography	
Required Courses:		
ART 380	Computer Graphics	3

ART 480	Advanced Computer Graphics	3
MULT 463	Graphic Design Multimedia Integration	4
Total Hours		62

## Interactivity, Web & Mobile Devices

MULT 100	Introduction to Multimedia	4
MULT 202	Media Theory, History and Creative Dev	4
MULT 204	Intermediate Multimedia	4
MULT 300	Advanced Multimedia I	4
MULT 301	Advanced Multimedia II	4
MULT 350A	Professional Internship	4
MULT 350B	Professional Internship	4
MULT 475	Capstone A	4
MULT 476	Capstone B	4
MULT 140	Multimedia Community	1
MULT 141	Multimedia Community	1
MULT 240	Multimedia Community	1
MULT 241	Multimedia Community	1
MULT 340	Multimedia Community	1
MULT 341	Multimedia Community	1
MULT 440	Multimedia Community	1
MULT 441	Multimedia Community	1
Select two of the following:		2
MULT 302	2D Animation: Tools and Techniques	
MULT 312	Flash/Action Scripting: Tools and Techniques	
MULT 313	Advanced Programming for Game Development	
MULT 318	Digital Sound: Tools and Techniques	
Select three of the following:		9
ART 236	Digital Photography	
MULT 463	Graphic Design Multimedia Integration	
MUS 200	Introduction to Music Production	
MUS 300	Studio Recording I	
CSC 110	Concepts of Programming	
CSC 210	Introduction to Computer Programming	
CSC 220	Advanced Computer Programming	
CSC 321	Computer Organization and Architecture	
CSC 344	Web Design	
CSC 370	Multimedia Technology	
Required Courses:		
ART 380	Computer Graphics	3
MULT 336	Developing Internet Content I	4
Total Hours		62

## High Definition Digital Cinema for Multimedia

MULT 100	Introduction to Multimedia	4
MULT 202	Media Theory, History and Creative Dev	4
MULT 204	Intermediate Multimedia	4
MULT 300	Advanced Multimedia I	4
MULT 301	Advanced Multimedia II	4
MULT 350A	Professional Internship	4
MULT 350B	Professional Internship	4
MULT 475	Capstone A	4
MULT 476	Capstone B	4

MULT 140	Multimedia Community	1
MULT 141	Multimedia Community	1
MULT 240	Multimedia Community	1
MULT 241	Multimedia Community	1
MULT 340	Multimedia Community	1
MULT 341	Multimedia Community	1
MULT 440	Multimedia Community	1
MULT 441	Multimedia Community	1

Select one of the following:

MULT 302	2D Animation: Tools and Techniques	
MULT 312	Flash/Action Scripting: Tools and Techniques	
MULT 313	Advanced Programming for Game Development	
MULT 318	Digital Sound: Tools and Techniques	
COMM 307	Screenwriting	
TA 131	Beginning Acting	
TA 367	Light/Sound Design for Stage and Media	
TA 368	Scenic Design for Stage and Media	
TA 475	Directing I	
MUS 200	Introduction to Music Production	
MUS 300	Studio Recording I	
MUS 400	Studio Recording II	

Required Courses:

ART 380	Computer Graphics	3
MULT 470	High Definition Digital Cinema I for Multimedia	4
MULT 471	High Definition Digital Cinema II for Multimedia	4
COMM 208	Beginning Cinema Production	4
COMM 309	Advanced Cinema Production	4

Total Hours 63

## Visual Effects, Motion Graphics, & Animation

MULT 100	Introduction to Multimedia	4
MULT 202	Media Theory, History and Creative Dev	4
MULT 204	Intermediate Multimedia	4
MULT 300	Advanced Multimedia I	4
MULT 301	Advanced Multimedia II	4
MULT 350A	Professional Internship	4
MULT 350B	Professional Internship	4
MULT 475	Capstone A	4
MULT 476	Capstone B	4
MULT 140	Multimedia Community	1
MULT 141	Multimedia Community	1
MULT 240	Multimedia Community	1
MULT 241	Multimedia Community	1
MULT 340	Multimedia Community	1
MULT 341	Multimedia Community	1
MULT 440	Multimedia Community	1
MULT 441	Multimedia Community	1

Select two of the following:

MULT 302	2D Animation: Tools and Techniques	
MULT 312	Flash/Action Scripting: Tools and Techniques	
MULT 313	Advanced Programming for Game Development	
MULT 318	Digital Sound: Tools and Techniques	

Select three of the following:

9

ART 165	Life Drawing	
ART 320	Sculpture	
ART 480	Advanced Computer Graphics	
MULT 465	Maxon Cinema 4D 3D Animation	
MULT 490	Independent Study	
MUS 200	Introduction to Music Production	
MUS 300	Studio Recording I	
Required Courses:		
ART 380	Computer Graphics	3
MULT 358	Visual Effects, Motion Graphics & Animation	4
Total Hours		62

## Digital Gaming

MULT 100	Introduction to Multimedia	4
MULT 202	Media Theory, History and Creative Dev	4
MULT 204	Intermediate Multimedia	4
MULT 300	Advanced Multimedia I	4
MULT 301	Advanced Multimedia II	4
MULT 350A	Professional Internship	4
MULT 350B	Professional Internship	4
MULT 475	Capstone A	4
MULT 476	Capstone B	4
MULT 140	Multimedia Community	1
MULT 141	Multimedia Community	1
MULT 240	Multimedia Community	1
MULT 241	Multimedia Community	1
MULT 340	Multimedia Community	1
MULT 341	Multimedia Community	1
MULT 440	Multimedia Community	1
MULT 441	Multimedia Community	1
Select two of the following:		2
MULT 302	2D Animation: Tools and Techniques	
MULT 312	Flash/Action Scripting: Tools and Techniques	
MULT 313	Advanced Programming for Game Development	
MULT 318	Digital Sound: Tools and Techniques	
Select three of the following:		9
ART 480	Advanced Computer Graphics	
MULT 313	Advanced Programming for Game Development	
MULT 358	Visual Effects, Motion Graphics & Animation	
MULT 490	Independent Study	
CSC 110	Concepts of Programming	
CSC 210	Introduction to Computer Programming	
CSC 321	Computer Organization and Architecture	
CSC 370	Multimedia Technology	
MUS 200	Introduction to Music Production	
MUS 300	Studio Recording I	
TA 131	Beginning Acting	
Required Courses:		
ART 380	Computer Graphics	3
MULT 465	Maxon Cinema 4D 3D Animation	4
Total Hours		62

## Minor in Multimedia

24 Credits minimum, 12 upper division credits.

MULT 100	Introduction to Multimedia	4
MULT 202	Media Theory, History and Creative Dev	4
Select two of the following:		8
MULT 336	Developing Internet Content I	
MULT 358	Visual Effects, Motion Graphics & Animation	
MULT 462	Digital Illustration	
MULT 463	Graphic Design Multimedia Integration	
MULT 465	Maxon Cinema 4D 3D Animation	
MULT 470	High Definition Digital Cinema I for Multimedia	
MULT 471	High Definition Digital Cinema II for Multimedia	
Technical or Supportive Course		4
Select four of the following:		4
MULT 140	Multimedia Community	
MULT 141	Multimedia Community	
MULT 240	Multimedia Community	
MULT 241	Multimedia Community	
MULT 340	Multimedia Community	
MULT 341	Multimedia Community	
MULT 440	Multimedia Community	
MULT 441	Multimedia Community	
Total Hours		24

## Courses

### Lower Division

#### **MULT 100. Introduction to Multimedia. (4).**

Introduces students to the concept of multimedia and presents the latest developments in the field. Designed as the gateway to the major, the course will model in simplified form the way the major will function. Students will be introduced to basic skill competencies - both computer and non-computer - necessary for the major. General concepts relating to multimedia will be introduced including social, ethical and legal issues, among others. Collaborative work and group exercises will develop creative and nonlinear thinking, team building, and written and oral communication skills. Guest lecturers and workshop leaders will discuss and demonstrate the state of the current technology. Small multimedia projects will focus students on creating real-world products.

#### **MULT 140/141. Multimedia Community. (1,1).**

Hosted by the multimedia program, the Multimedia Community is a weekly series of one-hour sessions that include workshops, seminars, panel discussions, roundtables on internship experiences and client interaction, and other forms of presentations given by students, faculty and guest speakers. Many of the seminars and panel discussions focusing on the global connections of multimedia are open to the general campus community. The Multimedia Community's objective is to present technical, design, business, employment, legal and social issues that affect multimedia and other disciplines. Enrollment and attendance is mandatory for all prospective and declared majors and minors.

#### **MULT 202. Media Theory, History and Creative Dev. (4).**

A basic understanding of media theory, history and creative development provides the conceptual and practical foundation upon which all media products are created and built. This course is designed to be a vital, exciting, stimulating and relevant body of knowledge that will broaden the student's awareness of the multiplicity of the design process, enable the student to discover, activate and articulate their personal sources of inspiration and creativity, and ground them in a higher level of self confidence in their own artistic voice. A substantial number of oral presentations that require creative, critical thinking, and performance skills are required in this course.

**MULT 204. Intermediate Multimedia. (4).**

Intermediate multimedia enhances the student designer's skill sets by demonstrating how to translate a concept presentation into professional project documentation that clearly articulates their design goals and objectives. This writing intensive class integrates both visual and verbal communication through the preparation of story summaries, character development, branding logo and identity design, storyboarding, HDTV and digital cinema script treatment, event concepts, and game design. This is the second section of a three-part multimedia design and production model that includes the creative, technical and administrative aspects.

**MULT 240/241. Multimedia Community. (1,1).**

Hosted by the multimedia program, the Multimedia Community is a weekly series of one-hour sessions that include workshops, seminars, panel discussions, roundtables on internship experiences and client interaction, and other forms of presentations given by students, faculty and guest speakers. Many of the seminars and panel discussions focusing on the global connections of multimedia are open to the general campus community. The Multimedia Community's objective is to present technical, design, business, employment, legal and social issues that affect multimedia and other disciplines. Enrollment and attendance is mandatory for all prospective and declared majors and minors.

**MULT 282. Selected Topic. (1-4).**

## Upper Division

**MULT 300. Advanced Multimedia I. (4).**

Concentrates on developing each student's specialty in multimedia as well as assessing higher levels of skill and knowledge competency. Team projects focus on broader uses of more advanced multimedia technology. Emphasis is placed on user interface, advanced communication skills and content development.

**MULT 301. Advanced Multimedia II. (4).**

Continuation of MULT 300.

**MULT 302. 2D Animation: Tools and Techniques. (1).**

The subject matter of each course determines the number and length of its class sessions. Taught by CLU faculty and industry guest instructors, these hands-on classes offer students opportunities to develop technical skills in using up-to-date, industry-standard tools.

**MULT 312. Flash/Action Scripting: Tools and Techniques. (1).**

The subject matter of this course determines the number and length of its class sessions. Taught by CLU faculty and industry guest instructors, these hands-on classes offer students opportunities to develop technical skills in using up-to-date, industry-standard tools.

**MULT 313. Advanced Programming for Game Development. (1).**

The subject matter of this course determines the number and length of its class sessions. Taught by CLU faculty and industry guest instructors, these hands-on classes offer students opportunities to develop technical skills in using up-to-date, industry-standard tools.

**MULT 318. Digital Sound: Tools and Techniques. (1).**

The subject matter of this course determines the number and length of its class sessions. Taught by CLU faculty and industry guest instructors, these hands-on classes offer students opportunities to develop technical skills in using up-to-date, industry-standard tools.

**MULT 336. Developing Internet Content I. (4).**

This class concentrates on the design and implementation of high level concept and database driven websites using interdisciplinary teams across creative, technical and production skill sets. First semester concentrates on client side development and implementation. Second semester concentrates on server side development and implementation.

**MULT 340/341. Multimedia Community. (1,1).**

Hosted by the multimedia program, the Multimedia Community is a weekly series of one-hour sessions that include workshops, seminars, panel discussions, roundtables on internship experiences and client interaction, and other forms of presentations given by students, faculty and guest speakers. Many of the seminars and panel discussions focusing on the global connections of multimedia are open to the general campus community. The Multimedia Community's objective is to present technical, design, business, employment, legal and social issues that affect multimedia and other disciplines. Enrollment and attendance is mandatory for all prospective and declared majors and minors.

**MULT 350A/350B. Professional Internship. (4,4).**

Internships are arranged with companies producing or specializing in multimedia-related materials. Each student applies, if possible, for an internship with a company that most closely fits with his or her special area of interest. A significant journal and work portfolio will be assessed at the end of the internship.

**MULT 358. Visual Effects, Motion Graphics & Animation. (4).**

This class concentrates on professional visual effects, motion graphics and 3D animation techniques for High Definition Television and Digital Cinema. Grounded in the creative appraisal and technical analysis of script and production requirements students will learn entertainment industry skills such as asset management, script breakdown, plate production, blue/green screen compositing, title and type animation, and basic character animation and staging. Prerequisites: portfolio review or lab tutorials in After Effects and Photoshop, MULT 100, MULT 202, or permission of instructor or department chairperson.

**MULT 440/441. Multimedia Community. (1,1).**

Hosted by the multimedia program, the Multimedia Community is a weekly series of one-hour sessions that include workshops, seminars, panel discussions, roundtables on internship experiences and client interaction, and other forms of presentations given by students, faculty and guest speakers. Many of the seminars and panel discussions focusing on the global connections of multimedia are open to the general campus community. The Multimedia Community's objective is to present technical, design, business, employment, legal and social issues that affect multimedia and other disciplines. Enrollment and attendance is mandatory for all prospective and declared majors and minors.

**MULT 462. Digital Illustration. (4).**

In this class the creative application of Adobe Illustrator for commercial and fine art expression is realized. Course includes overview of illustration process including discussion of traditional versus digital techniques, developing concepts, working from sketches, digitizing artwork, learning digital tools, and printing finished works.

**MULT 463. Graphic Design Multimedia Integration. (4).**

This class focuses on the principles of design and how they are applied across multiple mediums: Print, Internet, High Definition Television and Digital Cinema. Common elements such as concept, composition, color, and typography are explored as well as the specific aesthetic and technical differences and requirements of each medium. Prerequisites: portfolio review, ART 280, MULT 100, or permission of instructor or department chair.

**MULT 465. Maxon Cinema 4D 3D Animation. (4).**

This class focuses on the principles of 3D animation and how they are applied across multiple media: Print, Internet, HD Television, Digital Cinema and Digital Gaming. Topics include construction of models, 3D space, composition, color, keyframe animation, visual effects and motion capture, as well as the specific aesthetic and technical requirements of the industry. Prerequisites: MULT 100, ART 280, ART 380, or permission of the instructor or department chair.

**MULT 470. High Definition Digital Cinema I for Multimedia. (4).**

Modeled after major studio and production company project workflows this two semester, hands-on, time intensive class concentrates on developing new dramatic, experimental, reality-documentary work from concept to pre-visualization, script, dailies, visual effects, audio design to edited short movie. Major use of the Internet for project management, research and development, production and distribution is emphasized.

**MULT 471. High Definition Digital Cinema II for Multimedia. (4).**

Modeled after major studio and production company project workflows this two semester, hand-on, time intensive class concentrates on the post production process for dramatic, experimental, reality documentary work from dailies, visual effects, color correction, audio design to edited short. Major use of the Internet for project management, research and development, post-production and distribution is emphasized.

**MULT 475. Capstone A. (4).**

The capstone course maintains and expands on the work done in previous classes. The capstone experience will also involve the yearlong development of contracted multimedia projects. The projects involve students in intense research and application of all that they have learned in the major, culminating in the delivery of an acceptable professional product and portfolio.

**MULT 476. Capstone B. (4).**

Continuation of MULT 475.

**MULT 482. Selected Topics. (1-4).**

**MULT 490. Independent Study. (1-4).**

**MULT 492. Internship. (1-4).**

**MULT 497/498. Departmental Honors. (4,4).**

# Music

Whether music is your life – or simply a treasured part of the life you hope to create – Cal Lutheran’s Music Department can provide the professional training and performance experiences that maximize your abilities and enhance your love of the art.

The Music Department prides itself on creating a strong musical education within a nurturing atmosphere. Faculty members are experienced professionals who are committed to teaching excellence.

The music program is widely respected for its performance ensembles, its classroom teaching, its studio instruction and the musical theater productions presented in collaboration with the Theatre Arts Department.

Music Department technology labs embrace the latest in digital music production and studio recording. The department works closely with the multimedia program to foster collaboration among students working on projects ranging from new media to film.

Each student has the opportunity to study privately with some of the finest musicians in the Los Angeles area. Individual lessons are available in voice, piano, organ, percussion, composition, and all string, brass and woodwind instruments. Solo performance opportunities are widely available.

Ensembles are open to all university students (by audition), and include the CLU Choir, Women’s Chorale, University Symphony, Wind Ensemble, Jazz Improvisation Ensemble, Percussion Ensemble, and smaller chamber ensembles. The CLU Choir and Wind Ensemble embark on frequent tours. Past trips have included Hawaii, England and Scandinavia.

Career preparation is an important part of the student/faculty mentor relationship. While many music students continue on to graduate studies, careful advising and planning of course work have led Cal Lutheran graduates to successful careers teaching in public schools and universities, working in the church or in establishing their own private studios. Graduates have also become successful singers, instrumentalists and conductors throughout the country. Music related work is also available in industries such as media, advertising, arts management and in the exciting ever-changing film, television and recording industries.

Scholarships are offered by audition to talented music students, whether majors or non-majors. Audition deadline is February 1st.

## Bachelor of Arts in Music

46 credits minimum; 20 credits upper division

MUS 101	Music and Culture	3
MUS 107	Music Theory I	2
MUS 108	Music Theory II	2
MUS 109	Musicianship Skills I	1
MUS 110	Musicianship Skills II	1
MUS 111	Keyboard Harmony I	1
MUS 112	Keyboard Harmony II	1
MUS 207	Music Theory III	2
MUS 208	Music Theory IV	2
MUS 209	Musicianship Skills III	1
MUS 210	Musicianship Skills IV	1
MUS 211	Keyboard Harmony III (includes piano proficiency exam)	1
MUS 301	History and Literature of Music	3
MUS 302	History and Literature of Music	3
MUS 309	Fundamentals of Conducting	3
MUS 407	Analyzing Music	2
MUS 475	Capstone: Senior Recital/Thesis	1
Applied lessons with 4 upper division		8
Large ensemble with 4 upper division		8
Total Hours		46

## Performance Emphasis

12 credits minimum.

MUS 375	Junior Recital	1
MUS 439	Creating Music	3
MUS 154	Chamber Music	1

MUS 154	Chamber Music	1
MUS 354	Chamber Music <sup>1</sup>	1
MUS 354	Chamber Music	1
Additional upper division applied lessons		4
Total Hours		12

- 1 Voice/Piano majors may use one of the following in lieu of 1 unit of MUS 354: MUS 453 (2) or MUS 454 (2).  
Percussion majors may substitute MUS 160/MUS 360 for MUS 354.

## Composition Emphasis

11 credits minimum. Composition majors must take a minimum of two semesters of MUS 140/MUS 340 (piano).

MUS 200	Introduction to Music Production	3
MUS 375	Junior Recital	1
MUS 439	Creating Music	3
MUS 347	Composition	1
Total Hours		11

## Music Education Emphasis

13 credits minimum.

MUS 200	Introduction to Music Production	3
MUS 423	String and Brass Techniques	2
MUS 424	Woodwind and Percussion Techniques	2
MUS 439	Creating Music	3
MUS 410	Choral Conducting	3
or MUS 411	Instrumental Conducting	
Total Hours		13

## Music Technology Emphasis

14 credits minimum.

MUS 200	Introduction to Music Production	3
MUS 300/300L	Studio Recording I and Studio Recording I Lab	4
MUS 400/400L	Studio Recording II and Studio Recording II Lab	4
MUS 439	Creating Music	3
MUS 492	Internship	2
Total Hours		16

## Church Music Emphasis

12 credits minimum.

MUS 392	Liturgy and Worship	4
MUS 410	Choral Conducting	3
MUS 439	Creating Music	3
MUS 492	Internship	2
Total Hours		12

### Notes:

- Applied lessons may be divided between voice and piano/organ (minimum of four required in piano/organ).

- REL 332 (History of Christianity II: Reform and Reformation) or REL 335 (Martin Luther) recommended for upper division religion requirement. Recommended participation in Lord of Life Worship Team.

## Musical Theatre Emphasis

12 credits minimum.

TA 133	Acting I	4
TA 334	Stage Speech	2
MUS 370	Acting for Musical Theater	2
MUS 337	Dance for Musical Theater	2
MUS 403	History of Musical Theater	2
Total Hours		12

## Minor in Music

20 credits minimum, 10 credits upper division.

MUS 101	Music and Culture	3
MUS 107	Music Theory I	2
MUS 108	Music Theory II	2
MUS 109	Musicianship Skills I	1
MUS 110	Musicianship Skills II	1
MUS 111	Keyboard Harmony I	1
MUS 112	Keyboard Harmony II	1
MUS 309	Fundamentals of Conducting	3
Piano proficiency		
Upper Division Music Elective Units <sup>1</sup>		6
Total Hours		20

- <sup>1</sup> Complete the remainder of needed units for the minor with: applied lessons in one performance area, large ensemble participation, or music electives.

## Teaching Credential

Students interested in teaching music should contact the Chair of the Music Department for information about the music subject matter program. (See Education)

## Private Instruction

Class or private instruction for voice and instruments. Credit is dependent on number of lessons per week. One credit is granted for a 30-minute lesson together with a minimum of five hours practice per week and monthly attendance at Recital Class.

Classes in performance areas within the Music Department, i.e., class piano, class voice, class percussion and class guitar, may be taken for two semesters only for credit. All other applied music classes, i.e., piano, voice, guitar, strings, etc., may be taken for credit each semester a student is in residence. (See University Costs for private instruction fees).

## Courses

### Lower Division

#### **MUS 101. Music and Culture. (3).**

A music appreciation course designed to cultivate perceptive listening of the music of all stylistic periods with emphasis on the role of music within its cultural history. (nonmajors accepted).

#### **MUS 102. Fundamentals of Music. (3).**

Emphasis is placed on the basic skills of reading and writing music. Students need have no prior knowledge of music. (Recommended for elementary classroom teachers or anyone interested in music.) (for non-majors).

**MUS 103. Music for Classroom Teachers. (3).**

Intended for future elementary classroom teachers, this course is designed to equip students with the basic skills of reading and writing music, and understanding of the importance of music in the curriculum, and familiarity with the materials and methods for teaching music to children. Students need have no prior knowledge of music and is designed for non-music majors.

**MUS 107. Music Theory I. (2).**

A study of the primary written materials used for music making. Work will focus on the learning of scales, key signatures, intervals, chords, diatonic chords, commercial chord symbols, rhythm and meter, and an introduction to harmony.

**MUS 108. Music Theory II. (2).**

An exploration of diatonic harmony achieved through the study of part writing procedures and analysis. Materials will include triads and seventh chords in all inversions, non-chord tones, and an introduction to localized musical structures such as cadences and phrases. Prerequisite: MUS 107.

**MUS 109. Musicianship Skills I. (1).**

A lab course for achieving basic musical performance skills. The three main components of the course are rhythm, melody reading with solfege, and ear-training exercises. As the first semester in a four-semester sequence, materials will include elementary rhythms in simple and compound meter, diatonic melodies from literature with stepwise motion and simple leaps, interval singing and identification, and ear-training on all of the above materials.

**MUS 110. Musicianship Skills II. (1).**

A continuation of Musicianship Skills I. Rhythmic exercises will include one and two-part patterns with the inclusion of ties, rests, and syncopation. Melodic reading will consist of diatonic melodies from literature with skips in all chords. Ear-training exercises will include the identification of the intermediate rhythms, diatonic melodies, and simple harmonic progressions. Prerequisite: MUS 109.

**MUS 111. Keyboard Harmony I. (1).**

A lab course for applying basic theoretical knowledge to the keyboard. Students will perform exercises using diatonic materials, including major and minor scales, triads and seventh chords, and four-part chorale voicing of chords. This is the first semester of a three-semester sequence.

**MUS 112. Keyboard Harmony II. (1).**

A continuation of Keyboard Harmony I. Students will perform short diatonic progressions in a four-part chorale style, using the voice-leading procedures learned in the Music Theory II course. This is the second semester of a three-semester sequence. Prerequisite: MUS 111.

**MUS 113. Class Voice. (1).**

A study of the fundamentals of vocal production and solo vocal literature in a class setting. (Not applicable for the music major whose primary instrument is voice.)

**MUS 114. Class Piano. (1).**

A practical study of music fundamentals and basic piano technique through the medium of the keyboard. (Not applicable for the music major whose primary instrument is piano.)

**MUS 116. Class Guitar. (1).**

A study of fundamental guitar technique in a class setting. (Not applicable for the music major whose primary instrument is guitar.)

**MUS 140/140A. Piano. (1-2,1-2).****MUS 140B/140C. Piano. (1-2,1-2).****MUS 141. Organ. (1-2).****MUS 142/142A. Voice. (1-2,1-2).****MUS 142B/142C. Voice. (1-2,1-2).****MUS 142D. Voice. (1-2).****MUS 143. Strings. (1-2).**

Includes violin, viola, cello, bass, harp and classical guitar.

**MUS 143A. Strings: Violin. (1-2).****MUS 143B. Strings: Viola. (1-2).**

**MUS 143C. Strings: Cello. (1-2).**

**MUS 143D. Strings: Double Bass. (1-2).**

**MUS 143E. Strings: Guitar. (1-2).**

**MUS 143F. Strings: Harp. (1-2).**

**MUS 144. Woodwinds. (1-2).**

Includes flute, oboe, clarinet, saxophone and bassoon.

**MUS 144A. Woodwinds: Flute. (1-2).**

**MUS 144B. Woodwinds: Clarinet. (1-2).**

**MUS 144C. Woodwinds: Oboe. (1-2).**

**MUS 144D. Woodwinds: Bassoon. (1-2).**

**MUS 144E. Woodwinds: Saxophone. (1-2).**

**MUS 145. Brass. (1-2).**

Includes trumpet, trombone, euphonium, French horn and tuba.

**MUS 145A. Brass: Trumpet. (1-2).**

**MUS 145B. Brass: Trombone/Tuba. (1-2).**

**MUS 145C. Brass: French Horn. (1-2).**

**MUS 145D. Brass/Tuba Euphonium. (1-2).**

**MUS 146. Percussion. (1-2).**

Includes mallet and percussion instruments.

**MUS 147. Composition. (1-2).**

Individual lessons on modern procedures for composing music in the tradition of European and American concert music.

**MUS 150. Women's Chorale. (1).**

The study of various styles of choral music with emphasis on vocal development. Opportunity for public performance. Prerequisite: consent of instructor.

**MUS 153. Wind Ensemble. (1).**

The study of representative literature with special emphasis on performance. Prerequisite: consent of instructor.

**MUS 154. Chamber Music. (1).**

The study and performance of instrumental and vocal chamber music. Prerequisite: Permission of Music Department chair.

**MUS 155. Jazz Ensemble. (1).**

The study and performance of literature appropriate for this performance medium. By audition.

**MUS 160. Percussion Ensemble. (1).**

The development of techniques for all percussion instruments, including work with mallets, Includes the study and performance of standard percussion ensemble literature.

**MUS 180. California Lutheran Choir. (1).**

The study of choral repertoire representing all historical periods and musical styles. Frequent public performance. By audition.

**MUS 181. University Symphony. (1).**

The study of representative instrumental literature of different historical periods, with emphasis on public performances. By audition.

**MUS 200. Introduction to Music Production. (3).**

A introductory course in music production suitable for non-majors or students pursuing a major in Music Production. This course explores create techniques utilized in computer-based music production. Classes meet in a Macintosh Computer lab and the Music Production Lab (I-202). The ability to read music is helpful but not required. No prerequisite. Offered each semester.

**MUS 207. Music Theory III. (2).**

A study of chromatic materials in tonal music, including the analysis and part writing procedures for secondary functions, mode mixture, Neapolitan and augmented-sixth chords, diatonic and chromatic modulation. Prerequisite: MUS 108.

**MUS 208. Music Theory IV. (2).**

A study of musical materials and compositional techniques from the early 20th-century to the present. The course will be divided into two parts: the first being focuses on the Pre-WW II works of Debussy, Stravinsky, Bartok, and the Second Viennese school; the second will survey major trends since WW II, with an emphasis on music by American composers. Prerequisite: MUS 207.

**MUS 209. Musicianship Skills III. (1).**

A continuation of Musicianship Skills II. Students will learn advanced rhythmic exercises, including patterns with small and large beat divisions. Melody reading and ear-training exercises will focus on chromatic and modal materials. Prerequisite: MUS 110.

**MUS 210. Musicianship Skills IV. (1).**

As the fourth and final semester of the Musicianship Skills sequence, this course will focus on performance skills of advanced rhythms, chromatic and atonal melodies, and other materials common in 20th-century music. Rhythmic exercises will include meter changes, polyrhythms, and metric modulation. Ear-training will include the identification of atonal melodies and trichords. Prerequisite: MUS 209.

**MUS 211. Keyboard Harmony III. (1).**

As the third and final semester of the Keyboard Harmony sequence, this course will focus on the performance of advanced diatonic, chromatic, and modulating harmonic progressions. Prerequisite: MUS 112.

**MUS 282. Selected Topics. (1-4).****Upper Division****MUS 300. Studio Recording I. (4).**

Studio theory and standard audio recording techniques with a Pro Tools HD workstation are explored in this course. Topics include: microphones, signal flow, outboard equipment, patching, signal processing, plug-ins, studio communication, and recording session management. Lecture, 3 hours/week; Laboratory, 2 hours/week. Prerequisite: MUS 200.

**MUS 300L. Studio Recording I Lab. (0).****MUS 301/302. History and Literature of Music. (3,3).**

A survey of Western European musical heritage from ancient times to the present. Includes formal and stylistic analysis of music representing the different periods through listening, score study and live performances. Prerequisite: consent of instructor.

**MUS 309. Fundamentals of Conducting. (3).**

The study of basic conducting techniques, use of the baton, score study and preparation as well as methods of verbal and nonverbal communication. Prerequisite: consent of instructor.

**MUS 312. Alexander Technique. (2).**

Introduces students to the principles of the Alexander Technique and the application of these principles in their major areas. The principles develop increased mind and body coordination and are most commonly applied to acting, singing, public speaking, musical instrument performance and athletic performance. Additional fee required. (cross-listed with ACTV 312 & TA 312).

**MUS 333. History and Survey of Film Music. (3).**

A survey of film music from early 20th Century silent films to the 21st Century. The course will focus on American Feature films, supplemented by examples of scores from animated cartoons, experimental films, documentaries, art films, and 20th Century European Cinema. Open to non-majors. No prerequisites.

**MUS 337. Dance for Musical Theater. (2).**

This course provides students the opportunity to learn and perform dance styles most common to musical theatre. Tap, jazz, character and basic partnering will be choreographed into three or four dances that will be performed at the end of the course. Course will also cover the history of dance in musical theatre in America. (cross-listed with TA 337).

**MUS 340/340A. Piano. (1-2,1-2).**

**MUS 340B. Piano/Harpsichord. (1-2).**

**MUS 340C. Piano. (1-2).**

**MUS 341. Organ. (1-2).**

**MUS 342/342A. Voice. (1-2,1-2).**

**MUS 342B/342C. Voice. (1-2,1-2).**

**MUS 342D. Voice. (1-2).**

**MUS 343. Strings. (1-2).**

Includes violin, viola, cello, bass, harp and classical guitar.

**MUS 343A. Strings: Violin. (1-2).**

**MUS 343B. Strings: Viola. (1-2).**

**MUS 343C. Strings: Cello. (1-2).**

**MUS 343D. Strings: Double Bass. (1-2).**

**MUS 343E. Strings: Guitar. (1-2).**

**MUS 343F. Strings: Harp. (1-2).**

**MUS 344. Woodwinds. (1-2).**

Includes flute, oboe, clarinet, saxophone and bassoon.

**MUS 344A. Woodwinds: Flute. (1-2).**

**MUS 344B. Woodwinds: Clarinet. (1-2).**

**MUS 344C. Woodwinds: Oboe. (1-2).**

**MUS 344D. Woodwinds: Bassoon. (1-2).**

**MUS 344E. Woodwinds: Saxophone. (1-2).**

**MUS 345. Brass. (1-2).**

Includes trumpet, trombone, euphonium, French horn and tuba.

**MUS 345A. Brass: Trumpet. (1-2).**

**MUS 345B. Brass: Trombone/Tuba. (1-2).**

**MUS 345C. Brass: French Horn. (1-2).**

**MUS 345D. Brass/Tuba Euphonium. (1-2).**

**MUS 346. Percussion. (1-2).**

Includes mallet and percussion instruments.

**MUS 347. Composition. (1-2).**

Individual lessons on modern procedures for composing music in the tradition of European and American concert music.

**MUS 350. Women's Chorale. (1).**

The study of various styles of choral music with emphasis on vocal development. Opportunity for public performance. Prerequisite: consent of instructor.

**MUS 353. Wind Ensemble. (1).**

The study of representative literature with special emphasis on performance. Prerequisite: consent of instructor.

**MUS 354. Chamber Music. (1).**

The study and performance of instrumental and vocal chamber music. Prerequisite: Permission of Music Department chair.

**MUS 355. Jazz Ensemble. (1).**

The study and performance of literature appropriate for this performance medium. By audition.

**MUS 360. Percussion Ensemble. (1).**

The development of techniques for all percussion instruments, including work with mallets, Includes the study and performance of standard percussion ensemble literature.

**MUS 365. Advanced Music Production. (3).**

Advanced Topics in Music Production. Students learn techniques for creating unique music projects using the latest hardware and software tools. Topics include: advanced digital sampling, synthesizer programming, midi orchestration, creative uses of signal processing, creating music for games and soundtrack. Prerequisite MUS 300.

**MUS 370. Acting for Musical Theater. (2).**

Musical Theatre Workshop is designed to develop a technique for musical solo and audition performances. The course will include song analysis, an acting approach to song and choice of material, and technique. (cross-listed with TA 370).

**MUS 375. Junior Recital. (1).****MUS 380. California Lutheran Choir. (1).**

The study of choral repertoire representing all historical periods and musical styles. Frequent public performance. By audition.

**MUS 381. University Symphony. (1).**

The study of representative instrumental literature of different historical periods, with emphasis on public performances. By audition.

**MUS 392. Liturgy and Worship. (4).**

This course is an introduction to Christian liturgical tradition, principally as expressed in Western Christianity. It will include some comparison with non-Christian religious customs, and will give considerable emphasis to the development of worship in the Protestant tradition. The subject matter will be approached from a historical perspective, but will also include some practical training if there is demand. Christian hymnody and liturgical music will also be introduced, with an emphasis on the distinctive Lutheran contributions in those areas. (cross-listed with REL 392).

**MUS 400. Studio Recording II. (4).**

An exploration of advanced audio recording techniques using a Pro Tool HD workstation. Topics include: techniques for recording acoustic and electric instruments, remote recording, intermediate mixing techniques, studio acoustics, wiring and design. Lecture, 3 hours/week; Laboratory, 2 hours/week. Prerequisite: MUS 300.

**MUS 400L. Studio Recording II Lab. (0).****MUS 403. History of Musical Theater. (2).**

This course is designed to have wide interdisciplinary appeal. It will trace the origins of American Musical Theatre to roots in Greek drama, early Christian passion plays and various genres of European opera. Throughout the course of study, parallels will be drawn between American Musical Theatre and various important examples from comic German Singspiels, Italian opera buffe, etc. Students should come away from this course with a new appreciation for musical theatre and opera as well as the American Film Musical.

**MUS 407. Analyzing Music. (2).**

A survey of small and large musical structures through a study of selected European and American works from 1600 to the present. Primary forms to be explored will include variation, sonata, rondo, minuet, and arch form. Prerequisite: MUS 208.

**MUS 410. Choral Conducting. (3).**

The study and practical application of methods of choral ensemble training. Emphasis is threefold: mastery of conducting skills, understanding of the dynamics of the ensemble and knowledge of choral literature. Prerequisite: MUS 309.

**MUS 411. Instrumental Conducting. (3).**

Practical experience with a laboratory group in instrumental music. Prerequisite: MUS 309.

**MUS 423. String and Brass Techniques. (2).**

Elementary instruction in the technique of playing string and brass instruments. Recommended for public school music teachers.

**MUS 424. Woodwind and Percussion Techniques. (2).**

Elementary instruction in the technique of playing woodwind and percussion instruments. Recommended for public school music teachers.

**MUS 439. Creating Music. (3).**

An exploration of the creative aspects of music writing, combining elements of composition, orchestration and counterpoint. The composition element will focus on writing short instrumental and vocal works in traditional and modern forms. The orchestration component will involve a survey of instrumental characteristics and their compositional use within small and large ensembles. Counterpoint will be introduced through the study and writing of polyphonic structures, such as canon and fugue. Prerequisite: MUS 208.

**MUS 444. Audio Masterclass. (1).**

A workshop or masterclass in audio-related topics taught by industry professionals. The exactly content of this course will vary according to the topic presented. Required class sessions may occur off-campus. Prerequisite: MUS 300.

**MUS 453. Vocal Pedagogy. (2).**

Covers the principles of teaching voice based on the physiological functions of the vocal mechanism. Individual as well as group instruction is considered. Recommended for vocal or choral students who may wish to teach in school or community.

**MUS 454. Piano Pedagogy. (2).**

The study of piano teaching principles, including an examination of materials and methods of presentation for any age group. Opportunity for practical teaching experience under supervision. Highly recommended for advanced piano students who may wish to teach in school or community. Prerequisite: consent of instructor.

**MUS 475. Capstone: Senior Recital/Thesis. (1).****MUS 482. Selected Topics. (1-4).****MUS 490. Independent Study. (1-4).****MUS 492. Internship. (1-4).**

## Music Production

### Bachelor of Arts in Music Production

36 credits minimum, 23 credits upper division

MUS 107	Music Theory I	2
MUS 109	Musicianship Skills I	1
MUS 111	Keyboard Harmony I	1
Two semesters at 1 unit of private lessons		2
BUS 255	Environment of Business	4
MUS 200	Introduction to Music Production	3
MUS 300/300L	Studio Recording I and Studio Recording I Lab	4
MUS 333	History and Survey of Film Music	3
MUS 365	Advanced Music Production	3
MUS 400/400L	Studio Recording II and Studio Recording II Lab	4
MUS 475	Capstone: Senior Recital/Thesis	1
Eight units from any combination of the following: <sup>1</sup>		8
MUS 340	Piano	
MUS 341	Organ	
MUS 342	Voice	

MUS 343	Strings
MUS 344	Woodwinds
MUS 345	Brass
MUS 346	Percussion
MUS 347	Composition
MUS 439	Creating Music
MUS 444	Audio Masterclass
MUS 492	Internship (1 semester only)
BUS 375	Principles of Marketing
BUS 468	Venture Development
COMM 348	Website Design and Publishing
COMM 406	Legal Issues & the New Media
PHYS 309	Applied Electronics
PHYS 370	Digital Electronics
MULT 470	High Definition Digital Cinema I for Multimedia

Total Hours

36

1 A maximum of 4 additional units may be applied beyond the private music lesson requirement.

## Courses

### Lower Division

#### **MUS 101. Music and Culture. (3).**

A music appreciation course designed to cultivate perceptive listening of the music of all stylistic periods with emphasis on the role of music within its cultural history. (nonmajors accepted).

#### **MUS 102. Fundamentals of Music. (3).**

Emphasis is placed on the basic skills of reading and writing music. Students need have no prior knowledge of music. (Recommended for elementary classroom teachers or anyone interested in music.) (for non-majors).

#### **MUS 103. Music for Classroom Teachers. (3).**

Intended for future elementary classroom teachers, this course is designed to equip students with the basic skills of reading and writing music, and understanding of the importance of music in the curriculum, and familiarity with the materials and methods for teaching music to children. Students need have no prior knowledge of music and is designed for non-music majors.

#### **MUS 107. Music Theory I. (2).**

A study of the primary written materials used for music making. Work will focus on the learning of scales, key signatures, intervals, chords, diatonic chords, commercial chord symbols, rhythm and meter, and an introduction to harmony.

#### **MUS 108. Music Theory II. (2).**

An exploration of diatonic harmony achieved through the study of part writing procedures and analysis. Materials will include triads and seventh chords in all inversions, non-chord tones, and an introduction to localized musical structures such as cadences and phrases. Prerequisite: MUS 107.

#### **MUS 109. Musicianship Skills I. (1).**

A lab course for achieving basic musical performance skills. The three main components of the course are rhythm, melody reading with solfege, and ear-training exercises. As the first semester in a four-semester sequence, materials will include elementary rhythms in simple and compound meter, diatonic melodies from literature with stepwise motion and simple leaps, interval singing and identification, and ear-training on all of the above materials.

#### **MUS 110. Musicianship Skills II. (1).**

A continuation of Musicianship Skills I. Rhythmic exercises will include one and two-part patterns with the inclusion of ties, rests, and syncopation. Melodic reading will consist of diatonic melodies from literature with skips in all chords. Ear-training exercises will include the identification of the intermediate rhythms, diatonic melodies, and simple harmonic progressions. Prerequisite: MUS 109.

#### **MUS 111. Keyboard Harmony I. (1).**

A lab course for applying basic theoretical knowledge to the keyboard. Students will perform exercises using diatonic materials, including major and minor scales, triads and seventh chords, and four-part chorale voicing of chords. This is the first semester of a three-semester sequence.

**MUS 112. Keyboard Harmony II. (1).**

A continuation of Keyboard Harmony I. Students will perform short diatonic progressions in a four-part chorale style, using the voice-leading procedures learned in the Music Theory II course. This is the second semester of a three-semester sequence. Prerequisite: MUS 111.

**MUS 113. Class Voice. (1).**

A study of the fundamentals of vocal production and solo vocal literature in a class setting. (Not applicable for the music major whose primary instrument is voice.)

**MUS 114. Class Piano. (1).**

A practical study of music fundamentals and basic piano technique through the medium of the keyboard. (Not applicable for the music major whose primary instrument is piano.)

**MUS 116. Class Guitar. (1).**

A study of fundamental guitar technique in a class setting. (Not applicable for the music major whose primary instrument is guitar.)

**MUS 140/140A. Piano. (1-2,1-2).**

**MUS 140B/140C. Piano. (1-2,1-2).**

**MUS 141. Organ. (1-2).**

**MUS 142/142A. Voice. (1-2,1-2).**

**MUS 142B/142C. Voice. (1-2,1-2).**

**MUS 142D. Voice. (1-2).**

**MUS 143. Strings. (1-2).**

Includes violin, viola, cello, bass, harp and classical guitar.

**MUS 143A. Strings: Violin. (1-2).**

**MUS 143B. Strings: Viola. (1-2).**

**MUS 143C. Strings: Cello. (1-2).**

**MUS 143D. Strings: Double Bass. (1-2).**

**MUS 143E. Strings: Guitar. (1-2).**

**MUS 143F. Strings: Harp. (1-2).**

**MUS 144. Woodwinds. (1-2).**

Includes flute, oboe, clarinet, saxophone and bassoon.

**MUS 144A. Woodwinds: Flute. (1-2).**

**MUS 144B. Woodwinds: Clarinet. (1-2).**

**MUS 144C. Woodwinds: Oboe. (1-2).**

**MUS 144D. Woodwinds: Bassoon. (1-2).**

**MUS 144E. Woodwinds: Saxophone. (1-2).**

**MUS 145. Brass. (1-2).**

Includes trumpet, trombone, euphonium, French horn and tuba.

**MUS 145A. Brass: Trumpet. (1-2).**

**MUS 145B. Brass: Trombone/Tuba. (1-2).**

**MUS 145C. Brass: French Horn. (1-2).**

**MUS 145D. Brass/Tuba Euphonium. (1-2).**

**MUS 146. Percussion. (1-2).**

Includes mallet and percussion instruments.

**MUS 147. Composition. (1-2).**

Individual lessons on modern procedures for composing music in the tradition of European and American concert music.

**MUS 150. Women's Chorale. (1).**

The study of various styles of choral music with emphasis on vocal development. Opportunity for public performance. Prerequisite: consent of instructor.

**MUS 153. Wind Ensemble. (1).**

The study of representative literature with special emphasis on performance. Prerequisite: consent of instructor.

**MUS 154. Chamber Music. (1).**

The study and performance of instrumental and vocal chamber music. Prerequisite: Permission of Music Department chair.

**MUS 155. Jazz Ensemble. (1).**

The study and performance of literature appropriate for this performance medium. By audition.

**MUS 160. Percussion Ensemble. (1).**

The development of techniques for all percussion instruments, including work with mallets, Includes the study and performance of standard percussion ensemble literature.

**MUS 180. California Lutheran Choir. (1).**

The study of choral repertoire representing all historical periods and musical styles. Frequent public performance. By audition.

**MUS 181. University Symphony. (1).**

The study of representative instrumental literature of different historical periods, with emphasis on public performances. By audition.

**MUS 200. Introduction to Music Production. (3).**

A introductory course in music production suitable for non-majors or students pursuing a major in Music Production. This course explores create techniques utilized in computer-based music production. Classes meet in a Macintosh Computer lab and the Music Production Lab (I-202). The ability to read music is helpful but not required. No prerequisite. Offered each semester.

**MUS 207. Music Theory III. (2).**

A study of chromatic materials in tonal music, including the analysis and part writing procedures for secondary functions, mode mixture, Neapolitan and augmented-sixth chords, diatonic and chromatic modulation. Prerequisite: MUS 108.

**MUS 208. Music Theory IV. (2).**

A study of musical materials and compositional techniques from the early 20th-century to the present. The course will be divided into two parts: the first being focuses on the Pre-WW II works of Debussy, Stravinsky, Bartok, and the Second Viennese school; the second will survey major trends since WW II, with an emphasis on music by American composers. Prerequisite: MUS 207.

**MUS 209. Musicianship Skills III. (1).**

A continuation of Musicianship Skills II. Students will learn advanced rhythmic exercises, including patterns with small and large beat divisions. Melody reading and ear-training exercises will focus on chromatic and modal materials. Prerequisite: MUS 110.

**MUS 210. Musicianship Skills IV. (1).**

As the fourth and final semester of the Musicianship Skills sequence, this course will focus on performance skills of advanced rhythms, chromatic and atonal melodies, and other materials common in 20th-century music. Rhythmic exercises will include meter changes, polyrhythms, and metric modulation. Ear-training will include the identification of atonal melodies and trichords. Prerequisite: MUS 209.

**MUS 211. Keyboard Harmony III. (1).**

As the third and final semester of the Keyboard Harmony sequence, this course will focus on the performance of advanced diatonic, chromatic, and modulating harmonic progressions. Prerequisite: MUS 112.

**MUS 282. Selected Topics. (1-4).****Upper Division****MUS 300. Studio Recording I. (4).**

Studio theory and standard audio recording techniques with a Pro Tools HD workstation are explored in this course. Topics include: microphones, signal flow, outboard equipment, patching, signal processing, plug-ins, studio communication, and recording session management. Lecture, 3 hours/week; Laboratory, 2 hours/week. Prerequisite: MUS 200.

**MUS 300L. Studio Recording I Lab. (0).****MUS 301/302. History and Literature of Music. (3,3).**

A survey of Western European musical heritage from ancient times to the present. Includes formal and stylistic analysis of music representing the different periods through listening, score study and live performances. Prerequisite: consent of instructor.

**MUS 309. Fundamentals of Conducting. (3).**

The study of basic conducting techniques, use of the baton, score study and preparation as well as methods of verbal and nonverbal communication. Prerequisite: consent of instructor.

**MUS 312. Alexander Technique. (2).**

Introduces students to the principles of the Alexander Technique and the application of these principles in their major areas. The principles develop increased mind and body coordination and are most commonly applied to acting, singing, public speaking, musical instrument performance and athletic performance. Additional fee required. (cross-listed with ACTV 312 & TA 312).

**MUS 333. History and Survey of Film Music. (3).**

A survey of film music from early 20th Century silent films to the 21st Century. The course will focus on American Feature films, supplemented by examples of scores from animated cartoons, experimental films, documentaries, art films, and 20th Century European Cinema. Open to non-majors. No prerequisites.

**MUS 337. Dance for Musical Theater. (2).**

This course provides students the opportunity to learn and perform dance styles most common to musical theatre. Tap, jazz, character and basic partnering will be choreographed into three or four dances that will be performed at the end of the course. Course will also cover the history of dance in musical theatre in America. (cross-listed with TA 337).

**MUS 340/340A. Piano. (1-2,1-2).****MUS 340B. Piano/Harpsichord. (1-2).****MUS 340C. Piano. (1-2).****MUS 341. Organ. (1-2).****MUS 342/342A. Voice. (1-2,1-2).****MUS 342B/342C. Voice. (1-2,1-2).****MUS 342D. Voice. (1-2).****MUS 343. Strings. (1-2).**

Includes violin, viola, cello, bass, harp and classical guitar.

**MUS 343A. Strings: Violin. (1-2).****MUS 343B. Strings: Viola. (1-2).****MUS 343C. Strings: Cello. (1-2).**

**MUS 343D. Strings: Double Bass. (1-2).**

**MUS 343E. Strings: Guitar. (1-2).**

**MUS 343F. Strings: Harp. (1-2).**

**MUS 344. Woodwinds. (1-2).**

Includes flute, oboe, clarinet, saxophone and bassoon.

**MUS 344A. Woodwinds: Flute. (1-2).**

**MUS 344B. Woodwinds: Clarinet. (1-2).**

**MUS 344C. Woodwinds: Oboe. (1-2).**

**MUS 344D. Woodwinds: Bassoon. (1-2).**

**MUS 344E. Woodwinds: Saxophone. (1-2).**

**MUS 345. Brass. (1-2).**

Includes trumpet, trombone, euphonium, French horn and tuba.

**MUS 345A. Brass: Trumpet. (1-2).**

**MUS 345B. Brass: Trombone/Tuba. (1-2).**

**MUS 345C. Brass: French Horn. (1-2).**

**MUS 345D. Brass/Tuba Euphonium. (1-2).**

**MUS 346. Percussion. (1-2).**

Includes mallet and percussion instruments.

**MUS 347. Composition. (1-2).**

Individual lessons on modern procedures for composing music in the tradition of European and American concert music.

**MUS 350. Women's Chorale. (1).**

The study of various styles of choral music with emphasis on vocal development. Opportunity for public performance. Prerequisite: consent of instructor.

**MUS 353. Wind Ensemble. (1).**

The study of representative literature with special emphasis on performance. Prerequisite: consent of instructor.

**MUS 354. Chamber Music. (1).**

The study and performance of instrumental and vocal chamber music. Prerequisite: Permission of Music Department chair.

**MUS 355. Jazz Ensemble. (1).**

The study and performance of literature appropriate for this performance medium. By audition.

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The development of techniques for all percussion instruments, including work with mallets, Includes the study and performance of standard percussion ensemble literature.

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Advanced Topics in Music Production. Students learn techniques for creating unique music projects using the latest hardware and software tools. Topics include: advanced digital sampling, synthesizer programming, midi orchestration, creative uses of signal processing, creating music for games and soundtrack. Prerequisite MUS 300.

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Musical Theatre Workshop is designed to develop a technique for musical solo and audition performances. The course will include song analysis, an acting approach to song and choice of material, and technique. (cross-listed with TA 370).

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The study of choral repertoire representing all historical periods and musical styles. Frequent public performance. By audition.

**MUS 381. University Symphony. (1).**

The study of representative instrumental literature of different historical periods, with emphasis on public performances. By audition.

**MUS 392. Liturgy and Worship. (4).**

This course is an introduction to Christian liturgical tradition, principally as expressed in Western Christianity. It will include some comparison with non-Christian religious customs, and will give considerable emphasis to the development of worship in the Protestant tradition. The subject matter will be approached from a historical perspective, but will also include some practical training if there is demand. Christian hymnody and liturgical music will also be introduced, with an emphasis on the distinctive Lutheran contributions in those areas. (cross-listed with REL 392).

**MUS 400. Studio Recording II. (4).**

An exploration of advanced audio recording techniques using a Pro Tool HD workstation. Topics include: techniques for recording acoustic and electric instruments, remote recording, intermediate mixing techniques, studio acoustics, wiring and design. Lecture, 3 hours/week; Laboratory, 2 hours/week. Prerequisite: MUS 300.

**MUS 400L. Studio Recording II Lab. (0).****MUS 403. History of Musical Theater. (2).**

This course is designed to have wide interdisciplinary appeal. It will trace the origins of American Musical Theatre to roots in Greek drama, early Christian passion plays and various genres of European opera. Throughout the course of study, parallels will be drawn between American Musical Theatre and various important examples from comic German Singspiels, Italian opera buffe, etc. Students should come away from this course with a new appreciation for musical theatre and opera as well as the American Film Musical.

**MUS 407. Analyzing Music. (2).**

A survey of small and large musical structures through a study of selected European and American works from 1600 to the present. Primary forms to be explored will include variation, sonata, rondo, minuet, and arch form. Prerequisite: MUS 208.

**MUS 410. Choral Conducting. (3).**

The study and practical application of methods of choral ensemble training. Emphasis is threefold: mastery of conducting skills, understanding of the dynamics of the ensemble and knowledge of choral literature. Prerequisite: MUS 309.

**MUS 411. Instrumental Conducting. (3).**

Practical experience with a laboratory group in instrumental music. Prerequisite: MUS 309.

**MUS 423. String and Brass Techniques. (2).**

Elementary instruction in the technique of playing string and brass instruments. Recommended for public school music teachers.

**MUS 424. Woodwind and Percussion Techniques. (2).**

Elementary instruction in the technique of playing woodwind and percussion instruments. Recommended for public school music teachers.

**MUS 439. Creating Music. (3).**

An exploration of the creative aspects of music writing, combining elements of composition, orchestration and counterpoint. The composition element will focus on writing short instrumental and vocal works in traditional and modern forms. The orchestration component will involve a survey of instrumental characteristics and their compositional use within small and large ensembles. Counterpoint will be introduced through the study and writing of polyphonic structures, such as canon and fugue. Prerequisite: MUS 208.

**MUS 444. Audio Masterclass. (1).**

A workshop or masterclass in audio-related topics taught by industry professionals. The exact content of this course will vary according to the topic presented. Required class sessions may occur off-campus. Prerequisite: MUS 300.

**MUS 453. Vocal Pedagogy. (2).**

Covers the principles of teaching voice based on the physiological functions of the vocal mechanism. Individual as well as group instruction is considered. Recommended for vocal or choral students who may wish to teach in school or community.

**MUS 454. Piano Pedagogy. (2).**

The study of piano teaching principles, including an examination of materials and methods of presentation for any age group. Opportunity for practical teaching experience under supervision. Highly recommended for advanced piano students who may wish to teach in school or community. Prerequisite: consent of instructor.

**MUS 475. Capstone: Senior Recital/Thesis. (1).****MUS 482. Selected Topics. (1-4).****MUS 490. Independent Study. (1-4).****MUS 492. Internship. (1-4).**

## Philosophy

The Philosophy Department conceives of philosophy as an enterprise of both the mind and the spirit. The faculty are committed to providing the student with the knowledge and skills necessary to become a philosophically literate person. At the same time, our focus is on the integration of this knowledge with each student's process of moral, spiritual and intellectual growth.

The philosophy faculty at CLU are trained in a variety of areas:

- ethics
- existentialism
- analytic philosophy
- philosophy of mind
- history of philosophy
- Greek philosophy
- epistemology
- metaphysics
- phenomenology
- logic and the philosophy of science

Philosophy is an excellent major (or double major) for students who are prelaw or who are considering graduate degrees in philosophy, religion, theology or bioethics. Finally, for those who are primarily seeking an education to advance their personal growth and the means to integrate various disciplines, philosophical education is irreplaceable.

An undergraduate philosophy education also offers many career and educational opportunities to students whose ambitions lie elsewhere. Hospitals, church vocations, government agencies and business corporations seek out people with a philosophical education, as well as knowledge of applied ethics, because of their training in clear and focused thinking and their sensitivity to a wide range of ethical dilemmas.

## Bachelor of Arts in Philosophy

32 credits minimum, 20 credits upper division.

PHIL 435	Faith and Reason	4
Four Upper Division Philosophy Courses		16
Three Philosophy Courses (Lower or Upper Division)		12
Total Hours		32

## Minor in Philosophy

16 credits minimum, 12 credits upper division.

Three Upper Division Philosophy Courses	12
One Philosophy Course (Lower or Upper Division)	4
Total Hours	16

## Courses

### Lower Division

#### **PHIL 115. Humanities Tutorial. (4).**

The year-long Humanities Tutorial begins with an in-depth, one-semester study of the origins of Western culture in Greek literature and philosophy. The second semester continues with a study of contemporary themes and concerns both in Western and Non-Western thought. In addition to providing practice in the skills of analysis, argument, and critical and reflective interpretation, the course aims to familiarize students with the intellectual ideal of illuminating the new by understanding the old. (cross-listed with ENGL 115 and HNRS 115).

#### **PHIL 200. Problems. (4).**

Studies the meaning of philosophy as the "examined life," with an introduction to the concepts and major problems of philosophy.

#### **PHIL 220. Logic. (4).**

A study of the basic methods of clear thinking and argument, including both deductive and inductive reasoning. Special emphasis is placed on critical analysis of arguments.

#### **PHIL 260. Topics in World Philosophy. (4).**

A study of representative philosophical traditions of Greece and China, with a focus on the awareness of global diversity, interdependence and relevance. (cross-listed with ENGL 260).

#### **PHIL 282. Selected Topics. (4).**

### Upper Division

#### **PHIL 300. Ethics. (4).**

The study of what makes for a well-lived life in terms of character, conduct and relationships with others. Special attention is given to the connection between ethics and leadership.

#### **PHIL 310. Metaphysics. (4).**

The general inquiry into the nature of the real. Topics include the role of language in thought, the nature of truth, necessity and possibility, being and essence.

#### **PHIL 311/312. History of Philosophy. (4,4).**

First semester through medieval times; second semester from Descartes through Nietzsche.

#### **PHIL 315. Social Ethics. (4).**

The analysis of contemporary social issues such as abortion, capital punishment, affirmative action, multiculturalism, the environment, euthanasia and world hunger from a moral and philosophical perspective.

#### **PHIL 320. Philosophy of Religion. (4).**

Studies the evidence for belief in God and includes an examination of religious experience, the relation of religion and science, and the alternatives to theism.

#### **PHIL 321. Ancient Political Thought. (4).**

Presents the scope and nature of political ideas, philosophy and discussion in the Western ancient political tradition and focuses on the major philosophers from Plato to St. Thomas Aquinas and the major streams of ideas and philosophy flowing from them. (cross-listed with POLS 321).

#### **PHIL 340. Philosophy of Science. (4).**

A study of science from a philosophical perspective, covering the basic procedures of scientific research, the key features of scientific progress, and some ethical issues related to scientific research, in particular the uses of animals and humans as experimental subjects. Recommended for biology majors interested in exploring the philosophical implications of the scientific enterprise.

**PHIL 345. Bioethics. (4).**

A study of moral issues raised by the recent development of biological and medical sciences, including those related to reproductive technologies, human genetics, euthanasia, organ donations, health-care policies, and human/animal experimentation. The course focuses on the complexities that often surround moral choices in biological and medical sciences.

**PHIL 350. Technology and Value. (4).**

A study of moral issues raised by the recent development of technology, including those related to computers, genetic engineering and the environment. The course examines how current technological achievements profoundly change our social, cultural and moral life and how they create moral dilemmas for our society at the same time.

**PHIL 355. Chinese Philosophy and Culture. (4).**

A study of the development of Chinese philosophy and culture from the ancient to the contemporary period. The major philosophical traditions in China - Confucianism, Daoism and Buddhism - are covered. Key features of Chinese culture, reflecting the experiences and perspectives of both native Chinese and Chinese Americans, are examined.

**PHIL 400. Contemporary Philosophy. (4).**

Each year different philosophies and problems are studied, including analytic philosophy, existentialism, post-modernism, pragmatism and philosophy of mind and brain.

**PHIL 402. Post-Modernism: Politics and Philosophy Of Art. (4).**

Postmodernism explores the relationship between art, science, and politics in contemporary philosophy. The course begins with a consideration of the legacies of Freud, Nietzsche, and Marx and continues with an analysis of such authors as Breton, Heidegger, Benjamin, Cortázar, Borges, Derrida, Foucault, Heisenberg, and Rorty. Uses film (including students' own short surrealist films) literature, and philosophical texts. Open to all students, it also fulfills the Honors Capstone requirement. (cross-listed with POLS 402 and HNRS 402).

**PHIL 414. Philosophy of Art. (4).**

The study of the aesthetic experience and the work of art. Includes the various theories and their expression, function and criticism. (cross-listed with ART 414).

**PHIL 435. Faith and Reason. (4).**

Team-taught by professors of philosophy and religion, the course is an integrated and interdisciplinary exploration of the perennial tensions and cross-fertilizations between faith and reason. Authors read include St. Augustine, St. Thomas, Meister Eckhart, Luther, Descartes, Hume, Kierkegaard, Newman and Rudolf Otto. The course meets the capstone requirement for philosophy and religion majors. Open to juniors and seniors from all disciplines. Sophomores must get permission of instructor. (cross-listed with REL 435 and HNRS 435) (spring).

**PHIL 445. Philosophy of Education. (3).**

The analysis of educational principles and policies from the perspective of major philosophical schools and their associated ideologies. The course aims to clarify the connections between theory and practice as they relate to teaching and learning. Not available to freshmen.

**PHIL 482. Selected Topics. (1-4).****PHIL 490. Independent Study. (1-4).****PHIL 492. Internship. (2-4).****PHIL 497. Departmental Honors. (4).**

## Physics

The physics curriculum at California Lutheran University addresses the question of how and why things work, from the forces which govern subatomic particles to the large-scale phenomena which shape our universe as a whole. The fundamental nature of physics accounts for its relevance not only in engineering and technology but also in the life and earth sciences. The various introductory courses offered by the Physics Department are thus tailored to meet the different needs of physics majors, students in other sciences and liberal arts students, in particular future teachers. The physics faculty members use a blend of interactive lectures, illustrative demonstrations and hands-on laboratory exercises to enhance students' comprehension of the material.

CLU offers both the bachelor of science and bachelor of arts in physics, as well as a physics minor. The B.S. program is well suited for students interested in graduate studies in physics or engineering or in careers in industry. The B.A. is a more liberal physics degree, where students can explore the relationship of physics with another field of interest.

Beginning physics students gain a strong background in classical physics, modern physics and applied mathematics. Upper division courses focus on both theoretical topics and experimental techniques. These small upper division classes, together with close supervision by the faculty, provide a uniquely personalized learning experience for the students.

Physics facilities include a teaching laboratory with networked workstations, an optics laboratory with a full-size optical bench and a variety of lasers, an atomic force microscope and a scanning electronic microscope. In addition a bioengineering laboratory contains experimental resources for biomaterials research. Physics also owns an eight-node linux cluster for use in parallel numerical simulations.

Physics students are encouraged to become actively involved in undergraduate research. CLU students have worked on projects in fluid dynamics, biomedical engineering, laser medicine, nuclear radiation and digital communication. Current research interests of the physics faculty include fluid dynamics, complex systems, bioengineering and electronics. Senior physics majors participate in original research work that culminates in a research paper. Physics majors often participate in summer undergraduate research programs as well as internships with local industries. Physics graduates easily find employment and those who opt to continue studies in graduate school are accepted into programs at universities throughout the nation.

## Bachelor of Science in Physics

36 credits minimum, 27 credits upper division.

PHYS 211/211L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab (recommended)	5
or PHYS 201/201L	Mechanics and Thermodynamics-Algebra	
PHYS 212/212L	Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab	5
PHYS 303/303L	Radiation and Nuclear Physics and Modern Physics Lab	4
At least four physics courses numbered 410 and above		16
At least one upper division physics course with a lab component beyond 303		4
PHYS 400	Senior Research Seminar	4
Total Hours		38

Only physics courses numbered 200 and above can count toward the physics credit requirements.

## Required Supporting Courses

MATH 251	Calculus I	4
MATH 252	Calculus II	4
MATH 261	Calculus III	4
MATH 265	Differential Equations	4
Total Hours		16

## Recommended

CHEM 151/151L	General Chemistry and General Chemistry Lab	5
CHEM 152/152L	General Chemistry II and General Chemistry II Lab	5
CSC 210	Introduction to Computer Programming	4
MATH 343	Linear Algebra	4
MATH 420	Real Analysis	4
MATH 450	Complex Analysis	4
Total Hours		26

## Bachelor of Arts in Physics

40 credits minimum (28 credits physics, 12 credits concentration), 20 credits upper division physics.

PHYS 211/211L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab (recommended)	5
or PHYS 201/201L	Mechanics and Thermodynamics-Algebra	
PHYS 212/212L	Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab (recommended)	5
or PHYS 202/202L	Electricity, Magnetism, and Optics - Algebra	
PHYS 303/303L	Radiation and Nuclear Physics and Modern Physics Lab	4
At least two physics courses numbered 410 and above		8

At least one upper division physics course with a lab component beyond 303	4
PHYS 400 Senior Research Seminar	4
12 Credit Concentration (at least 8 credits of upper division) *	12
<b>Total Hours</b>	<b>42</b>

\*The concentration is a minimum of 12 credits in a single field outside of math or physics. It is expected that the presentation for the capstone will incorporate both physics and the field of concentration. Only physics courses numbered 200 and above can count toward the physics credit requirements.

## Required Supporting Courses

MATH 251	Calculus I	4
MATH 252	Calculus II	4
MATH 261	Calculus III	4
MATH 265	Differential Equations	4
<b>Total Hours</b>		<b>16</b>

## Recommended

CSC 210	Introduction to Computer Programming	4
MATH 343	Linear Algebra	4
MATH 420	Real Analysis	4
MATH 450	Complex Analysis	4
<b>Total Hours</b>		<b>16</b>

## Minor in Physics

18 credits minimum, 10 credits upper division

PHYS 211/211L	Mechanics and Thermodynamics-Calculus and Mechanics and Thermodynamics-Calculus Lab (recommended)	5
or PHYS 201/201L	Mechanics and Thermodynamics-Algebra	
PHYS 212/212L	Electricity, Magnetism, and Optics - Calculus and Electricity, Magnetism, and Optics - Calculus Lab (recommended)	5
or PHYS 202/202L	Electricity, Magnetism, and Optics - Algebra	
10 Upper Division Physics Credits		10
<b>Total Hours</b>		<b>20</b>

## Teaching Credential

Candidates for a California Secondary Teaching Credential should contact the School of Education Office for a complete list of course requirements for a Single Subject Waiver in Science.

## Courses

### Lower Division

#### PHYS 100. Introduction to Astronomy. (3).

An introduction to the solar and stellar objects in our visible universe.

#### PHYS 100L. Introduction to Astronomy Lab. (1).

Includes identification of constellations and planets, use of telescopes, analysis of astronomical data and field trips. Laboratory, 2 hours/week. Prerequisite or corequisite: PHYS 100.

#### PHYS 110. Physical Science for Liberal Art Majors. (4).

An introduction to physical science that includes fundamental forces in nature, conservation laws, energy transport, waves and the language of science. Emphasizes an explanation of everyday experiences and phenomena by asking questions about fundamental scientific concepts.

**PHYS 110L. Physical Science for Liberal Arts Majors Lab. (0).**

**PHYS 201. Mechanics and Thermodynamics-Algebra. (4).**

This algebra-based introductory course covers the mathematical description of motion, Newton's Laws, linear and circular motion, oscillatory motion and waves. Topics from thermodynamics include heat transfer, ideal gas laws, cyclic processes and entropy. Lecture, 3 hours/week; Laboratory, 2 hours/week. Prerequisite: MATH 151 or equivalent. (fall).

**PHYS 201L. Mechanics and Thermodynamics-Algebra Lab. (0).**

**PHYS 202. Electricity, Magnetism, and Optics - Algebra. (4).**

This algebra-based introductory course covers electrostatics, DC and AC electric currents, magnetism, Maxwell's equations, and geometric and physical optics. Lecture, 3 hours/week; Laboratory, 2 hours/week. Prerequisite: PHYS 201, PHYS 211 or permission of the instructor. (spring).

**PHYS 202L. Electricity, Magnetism, and Optics - Algebra Lab. (0).**

**PHYS 209. Energy and Society. (4).**

This introductory course is a discussion and empirical examination of the science of energy, its production, distribution, and consumption. Energy efficiency of automobiles and buildings. Energy production using fossil fuels, alternative energy, and renewable sources. Issues of economics, distribution and development. Students enrolled in the class MUST concurrently enroll in the corresponding laboratory course, PHYS 209L. Prerequisite: MATH 110 or equivalent.

**PHYS 209L. Energy and Society Lab. (0).**

**PHYS 211. Mechanics and Thermodynamics-Calculus. (5).**

This calculus-based introductory course covers the mathematical description of motion, Newton's Laws, linear and circular motion, oscillatory motion and waves. Topics from thermodynamics include heat transfer, ideal gas laws, cyclic processes and entropy. Lecture, 4 hours/week; Laboratory, 2 hours/week. Prerequisite or corequisite: MATH 251. (fall).

**PHYS 211L. Mechanics and Thermodynamics-Calculus Lab. (0).**

**PHYS 212. Electricity, Magnetism, and Optics - Calculus. (5).**

This calculus-based introductory course covers electrostatics, DC and AC electric currents, magnetism, Maxwell's equations and geometric and physical optics. Lecture, 4 hours/week; Laboratory, 2 hours/week. Prerequisites: PHYS 211 (recommended) or PHYS 201; prerequisite or corequisite: MATH 252. (spring).

**PHYS 212L. Electricity, Magnetism, and Optics - Calculus Lab. (0).**

**PHYS 282. Selected Topics. (1-4).**

**PHYS 282L. Selected Topics Lab. (0).**

## Upper Division

**PHYS 303. Radiation and Nuclear Physics. (4).**

The study of foundations of quantum mechanics, atomic spectra, radioactive emissions, radiation health issues, nuclear reactions and elementary particle physics. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: MATH 252; PHYS 202 or PHYS 212. (fall, odd years).

**PHYS 303L. Modern Physics Lab. (0).**

**PHYS 309. Applied Electronics. (4).**

Includes the study of DC and AC circuit analysis, network theorems, digital logic and logic network design, analog circuit design and digital computer interface. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: MATH 151; PHYS 202 or PHYS 212 or high school physics. (spring, odd years).

**PHYS 309L. Applied Electronics Lab. (0).**

**PHYS 340. Advanced Physics Lab. (1-3).**

A choice of selected experiments covering current topics in physics; open-ended to allow student initiative. Laboratory, 3 hours/week per credit. Prerequisite: PHYS 212.

**PHYS 370. Digital Electronics. (3).**

Includes logic, number systems, buss, memory and register design and in-depth architecture. Lecture, 2 hours/week; Laboratory, 3 hours/week. Prerequisite: MATH 151. (fall, even years).

**PHYS 400. Senior Research Seminar. (4).**

Independent study and research, interdisciplinary topic of current interest selected by the participants. Ongoing independent research results are presented for group discussions. Submittal of a research paper is required. Prerequisite: senior standing.

**PHYS 405. Geophysics. (4).**

An interdisciplinary study of how to use geophysical observations of the Earth's gravitational and magnetic fields, seismic wave velocities and subsurface electrical resistivity to solve geological and environmental problems. Specific field methods using geophysical instruments will be taught along with the interpretation of the collected data. Lecture, 3 hours/week; Laboratory, 3 hours/week. Prerequisites: PHYS 201 & PHYS 202 or PHYS 211 & PHYS 212. GEOL 111 or GEOL 152 recommended. (cross-listed with GEOL 405).

**PHYS 405L. Geophysics Lab. (0).****PHYS 410. Dynamics and Chaos. (3).**

Includes the study of single-particle dynamics, reference systems, oscillations, Lagrangian and Hamiltonian mechanics. Nonlinear systems, phase plots, the surface of section, toroidal motion, chaos and the KAM theorem are the focus of the latter part of the class. Prerequisites: MATH 261, MATH 265; PHYS 212. (fall, even years).

**PHYS 415. Thermodynamics and Kinetic Theory. (3).**

Introduces the fundamental concepts and laws of thermodynamics and kinetic theory of gases. Prerequisites: MATH 261, MATH 265; PHYS 212. (fall, even years).

**PHYS 420. Electrodynamics. (4).**

Solution techniques of Maxwell's equations are developed for static and time dependent electric and magnetic fields. Specific topics include: The electrical potential and Laplace's equation, boundary value problems, multipole expansions, electric and magnetic fields in matter, electrodynamics, and the propagation of electromagnetic fields through media. Also includes introduction to special relativity and relativistic electrodynamics. Prerequisites: MATH 261 and MATH 265, PHYS 212 and PHYS 440.

**PHYS 425. Geometric and Physical Optics. (3).**

The study of electro-magnetic waves, reflection and refraction, interference, diffraction, Fourier optics, fiber optics and nonlinear effects. Prerequisites: MATH 261, MATH 265; PHYS 212. (fall, odd years).

**PHYS 430. Quantum Physics. (4).**

An introduction to quantum theory, beginning with the Schrödinger equation and the statistical interpretation of the wave function. One-dimensional applications, include the harmonic oscillator, square-well potentials and tunneling. Three dimensional applications include, the theory of angular momentum, spin, the hydrogen atom, identical particles, time-independent perturbation theory and the Pauli exclusion principle. Other approximate solution techniques with applications to atoms, molecules, and solids are presented. Prerequisites: MATH 261 and MATH 265, PHYS 212 and PHYS 440.

**PHYS 440. Mathematical Methods of Physics. (4).**

Mathematics with a focus to meet the needs of students with a major or minor in physics or engineering disciplines. Topics include: complex variables, linear algebra, coordinate transformations, vector analysis, Fourier series and transforms; Laplace transforms, the Dirac delta function, Green functions, calculus of variations and solution techniques for partial differential equations with specific applications to Laplace's equation. Prerequisites: MATH 261 and PHYS 212. Recommended: MATH 265. (Cross-listed with MATH 440).

**PHYS 482. Selected Topics. (1-4).****PHYS 482L. Sel Topics: Lab. (1-4).****PHYS 490. Independent Study. (1-4).****PHYS 492. Internship. (2-4).**

**PHYS 497. Departmental Honors. (4).**

This course allows academically motivated students the opportunity to explore a research topic of their choosing at a level of depth beyond the one-semester Capstone course. Students will complete two semesters of Physics 497 to satisfy the requirements of the Physics department Honors program. Upon completion of the two semesters, the student will present in a public forum, such as the CLU Festival of Scholars, or equivalent.

## Political Science

The mission of the Political Science Department is to provide a personalized education of distinction that fosters students' intellectual and critical skills, and develops their capacities to apply the study of politics to the conditions of political life especially in the context of diversity and globalization. Through its courses and experiential learning opportunities, the CLU Political Science department is unified by two broad themes: civic engagement and global citizenship. The Department is committed to the belief that one of the goals of education is to link scholarship, teaching and applied knowledge to the academic study of politics. Students are offered opportunities to study abroad at Oxford and other notable programs, engage in community development and service projects, and intern in public policy and non-profit agencies in Washington, DC and throughout Los Angeles and Ventura Counties.

### Bachelor of Arts in Political Science

32 credits minimum, 20 credits upper division.

Select one of the following:		4
POLS 102	Theory and Practice of American Government	
POLS 205	American National Government	
POLS 210	Multiculturalism, Race and Politics in The United States	
POLS 222	Introduction to Political Science	
POLS 320	Scope and Methods of Political Science	4
Select one of the following:		4
POLS 321	Ancient Political Thought	
POLS 322	Modern Political Thought	
POLS 324	American Political Thought	
POLS 476	Capstone - Global Leaders and Leadership	4
Political Science Electives (at least 8 credits upper division)		16
Total Hours		32

### International Relations Emphasis

32 credits minimum, 20 credits upper division.

Select one of the following:		4
POLS 102	Theory and Practice of American Government	
POLS 205	American National Government	
POLS 210	Multiculturalism, Race and Politics in The United States	
POLS 222	Introduction to Political Science	
POLS 320	Scope and Methods of Political Science	4
Select one of the following:		4
POLS 321	Ancient Political Thought	
POLS 322	Modern Political Thought	
POLS 324	American Political Thought	
POLS 476	Capstone - Global Leaders and Leadership	4
Select two of the following:		8
POLS 341	European Government and Politics	
POLS 360	International Relations	
POLS 365	American Foreign Policy	
POLS 367	Comparative Politics	
POLS 461	International Law and Organization	
POLS 482	Selected Topics	
Select two of the following:		8
POLS 382	History and Politics of Latin America	

POLS 384	History and Politics of the Modern Middle East	
POLS 388	History and Politics of East Asia	
POLS 443	Government and Politics of Africa	

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Total Hours 32

## Law and Public Policy Emphasis

32 credits minimum, 20 credits upper division.

Select one of the following:		4
POLS 102	Theory and Practice of American Government	
POLS 205	American National Government	
POLS 210	Multiculturalism, Race and Politics in The United States	
POLS 222	Introduction to Political Science	
POLS 320	Scope and Methods of Political Science	4
Select one of the following:		4
POLS 321	Ancient Political Thought	
POLS 322	Modern Political Thought	
POLS 324	American Political Thought	
POLS 476	Capstone - Global Leaders and Leadership	4
POLS 207	Contemporary Issues in Public Policy	4
Select two of the following:		8
POLS 210	Multiculturalism, Race and Politics in The United States	
POLS 303	Parties, Interest Groups and Public Opinion	
POLS 307	California Politics	
POLS 317	Politics of Community Development	
POLS 365	American Foreign Policy	
POLS 403	Public Administration and Public Policy	
POLS 412	Civil Rights Movement	
POLS 416	Social Movements and Politics of Global Change	
POLS 418	Women and Politics	
POLS 419	Internet and Politics	
POLS 482	Selected Topics	
Select one of the following:		4
POLS 105	Introduction to Law and Legal Process	
POLS 401	American Constitutional Law	
POLS 404	Constitutional Law in Criminal Justice	
POLS 405	Freedom of Communication	
POLS 414	Environmental Law and Policy	
POLS 461	International Law and Organization	
POLS 481	Law and Society	
POLS 482	Selected Topics	

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Total Hours 32

## Minor in Political Science

20 credits minimum, 16 credits upper division.

Select one of the following:		4
POLS 102	Theory and Practice of American Government	
POLS 205	American National Government	
POLS 222	Introduction to Political Science	
Select one of the following:		4
POLS 321	Ancient Political Thought	
POLS 322	Modern Political Thought	
POLS 341	European Government and Politics	

## Courses

### Lower Division

#### **POLS 102. Theory and Practice of American Government. (4).**

An introduction to the basic political processes and institutions of the American governmental system. Topics include fundamental principles of democracy; the United States Constitution; the executive, legislative and judicial branches of the national government; political parties and interest groups; and state and local political institutions.

#### **POLS 105. Introduction to Law and Legal Process. (4).**

Seeks a broad and critical understanding of the historical and philosophical foundations of law. Topics include sources of legal tradition, the impact of law on society, judicial decision-making, and legal restraints and impediments. The course will familiarize the student with electronic legal sources. (cross-listed with CRIM 105).

#### **POLS 200. Global Studies. (4).**

This course analyzes how social forces and processes have and are transforming the lives of individuals. Issues such as war, peace and justice are examined from a political perspective that reflects them as global rather than rational concerns. (cross-listed with GLST 101).

#### **POLS 205. American National Government. (4).**

This intensive study of the structures and functions of the national government gives special attention to the legislative and executive branches in the policy-making and administrative processes.

#### **POLS 206. Globalizing Los Angeles. (4).**

Using lecture, class discussion, student presentations, film, performance, and lived experience, we will engage issues related to the conceptualization of locality and space, of culture and character, and of security and violence in what Janet Abu-Lughod has described as America's third global city, Los Angeles.

#### **POLS 207. Contemporary Issues in Public Policy. (4).**

This course provides students with an introduction to the public policy process in the United States. The course will focus on how problems get identified, which issues make it to the public agenda, the factors that structure individual policy choices and the implementation/evaluation of policies. This process will be illustrated by examining contemporary social, economic and foreign policy issues in the United States.

#### **POLS 210. Multiculturalism, Race and Politics in The United States. (4).**

This course explores the multicultural, racial, and political landscape in the United States. The emphasis is on multiculturalism and race as forms of cultural identification and political gains and losses. Politics in this course is broadly defined as who gets what, when, and how; and politics is not confined to the political arena. Political gains, for example, can be located in the business and cultural arenas. In this sense, this course focuses on the political activity of groups on the national and local levels. The political, social, and cultural characteristics of various ethnic groups, including their organization and differentiation will emerge in this course.

#### **POLS 212. Media and Politics. (4).**

An introduction into the role of media in the political process. The course will study propaganda and manipulation by newspapers, television, radio, magazines and especially films.

#### **POLS 222. Introduction to Political Science. (4).**

Explains the meaning of political life in the modern world and some of the ideas behind its democratic and non-democratic forms. Involves a systematic and comparative study of political structures, institutions, behaviors and processes.

#### **POLS 233. Argumentation and Advocacy. (4).**

The study and practice of argumentation, emphasizing interactive critical thinking skills, including analysis, research and evidence, case construction, refutation, and visual and other forms of symbolic influence; diverse fields of argumentation and advocacy considered including law, politics, organizations, mass media, entertainment, interpersonal, and intercultural relations. (cross-listed with COMM 233).

#### **POLS 245. Introduction to African Politics. (4).**

Surveys the political institutions and culture of sub-Saharan African countries, identifying decisive political and cultural forces that are critical to the understanding of African politics. Students probe aspects of traditional African culture and examine in depth the contemporary political situation in southern Africa.

**POLS 282. Selected Topics. (1-4).**

## **Upper Division**

**POLS 303. Parties, Interest Groups and Public Opinion. (4).**

Introduces the dynamics and significance of political parties, the role of interest groups, problems of campaigns and elections, and the impact of public opinion on the democratic process.

**POLS 307. California Politics. (4).**

This course examines the political dynamics of the Golden State from a variety of viewpoints (historical, economic, geographic, and social). We will examine how resources are distributed through policy outcomes and the effect of political institutions and civil society on these outcomes.

**POLS 308. Politics in Cinema. (4).**

Explores the political nature of cinema and the ways in which political culture, issues and themes are expressed in and through cinema. Particular emphasis is placed on American political culture and practices. (cross-listed with COMM 308).

**POLS 317. Politics of Community Development. (4).**

This course provides an overview of the political and social challenges that confront residents, organizers and leaders in making their communities better places to live. The course explores the factors associated with community stability and prosperity, strategies for doing community development work and economic/governance structures that support community empowerment efforts. The course will give students the opportunity to engage in local Ventura County community building efforts.

**POLS 320. Scope and Methods of Political Science. (4).**

An introductory study of the history, nature and current development of political science, with special emphasis on the methods dealing with problems of political science and the techniques of research in politics.

**POLS 321. Ancient Political Thought. (4).**

Presents the scope and nature of political ideas, philosophy and discussion in the Western ancient political tradition and focuses on the major philosophers from Plato to St. Thomas Aquinas and the major streams of ideas and philosophy flowing from them. (cross-listed with PHIL 321).

**POLS 322. Modern Political Thought. (4).**

A systematic analysis of the political ideas of great Western and non-Western writers. Particular contributions to political theory are examined, with special emphasis on the concept of human nature and the state, the role of "law" in politics, the problem of political change and the relationship between authority and freedom. (spring).

**POLS 324. American Political Thought. (4).**

A survey of the development of American ideas concerning political authority from the colonial period to the present. Special emphasis is placed on the transformation of liberalism in the 20th century under the impact of industrialization and the shift from the concept of the "free" individual to the organization person.

**POLS 341. European Government and Politics. (4).**

A study of the current governments and politics of Great Britain, France, the German Federal Republic and the former Soviet Union. The historical origins of these governments are briefly studied and their institutions analyzed as manifestations of their social and political culture and traditions, and the impact of external forces.

**POLS 360. International Relations. (4).**

An introduction to the problems of relations among the nations of the world, including the basic factors that influence international relations and the channels of settlement of international problems.

**POLS 365. American Foreign Policy. (4).**

A survey of the factors and forces entering into the formation and implementation of American foreign policy, with special emphasis on contemporary problems. Includes studying the relationship between the means and sources of American power and the goals and objectives of American policy.

**POLS 367. Comparative Politics. (4).**

This course focuses on understanding how and why nation-states have adopted and implemented various forms of political and economic systems. Using country-case study analyses, the course examines how political ideologies, political culture and history, institutions and geography shape political and economic development in different regions of the world.

**POLS 382. History and Politics of Latin America. (4).**

Surveys the politics and history of Latin America from the early encounters of Native Americans with Europeans to the present. The evolution of Latin American institutions (political, cultural and economic) will be traced from 1492 until the present. (cross-listed with HIST 382).

**POLS 384. History and Politics of the Modern Middle East. (4).**

An examination of the historical background and contemporary politics of this vital area in world affairs. The politics and economics of oil, the Arab-Israeli conflict, the revival of Islam and the problems of modernization and development are studied in detail. (cross-listed with HIST 384).

**POLS 386. History and Politics of South Asia. (4).**

An examination of the history, culture and politics of South Asia through the Hindu, Muslim and British periods to the present. The impact of these legacies on the problems of state-building, economic development, social change and foreign policy in contemporary India, Pakistan, Bangladesh, Sri Lanka and Nepal is approached from a comparative and regional perspective. (cross-listed with HIST 386) (a/y).

**POLS 388. History and Politics of East Asia. (4).**

An introduction to the political thought and institutions of East Asia. Primary attention is paid to China, which traditionally had a strong influence on the pattern of political development in the region and today seeks to renew its influence. (cross-listed with HIST 388).

**POLS 401. American Constitutional Law. (4).**

An introduction to public law and an analysis of some of the major contemporary issues of American constitutionalism, including the place of the Supreme Court, nation-state relationships, legal controls on government action, and civil rights and liberties.

**POLS 402. Post-Modernism: Politics and Philosophy Of Art. (4).**

Postmodernism explores the relationship between art, science, and politics in contemporary philosophy. The course begins with a consideration of the legacies of Freud, Nietzsche, and Marx and continues with an analysis of such authors as Breton, Heidegger, Benjamin, Cortázar, Borges, Derrida, Foucault, Heisenberg, and Rorty. Uses film (including students' own short surrealist films) literature, and philosophical texts. Open to all students, it also fulfills the Honors Capstone requirement. (cross-listed with HNRS 402 and PHIL 402).

**POLS 403. Public Administration and Public Policy. (4).**

An introduction to modern theories of administration; the relation of administration to the political process; and the analysis of administrative organization and processes including planning, personnel, finance and law.

**POLS 404. Constitutional Law in Criminal Justice. (4).**

Emphasizes Supreme Court decisions and constitutional issues relevant to the Fourth, Fifth, Sixth, Eighth and Fourteenth amendments. Students are expected to research and present cases from the text and other legal sources. Prerequisite: junior standing or permission of instructor. (cross-listed with CRIM 404).

**POLS 405. Freedom of Communication. (4).**

A study of the limits placed on freedom of expression in the United States. Through examining leading U.S. court decisions and relevant statutes, students will learn the broad principles and legal reasoning underlying First Amendment jurisprudence, including the legal, philosophical and political issues entailed in the rights of free expression. Students will then examine how these principles have been applied to the regulation of the various communication industries including the print media, broadcasting and cable television. (cross-listed with COMM 405).

**POLS 411. Ethnic Conflict and Civil War. (4).**

This course examines discord within multiethnic societies by analyzing how nationalist, racial, ethnic and/or religious identities are used to foster societal conflict such as civil war and genocide. This course is divided into four parts.

**POLS 412. Civil Rights Movement. (4).**

Examines the African struggle for equal rights in the United States. The civil rights movement of the 1950s and 1960s will be the primary vehicle directing the flow of the course. Included will be civil rights struggles by other groups such as women, Asians and Latinos to illustrate similarities and influences with the African American struggle. Tactics and strategies will be examined for their effectiveness and ineffectiveness in the realization of goals and objectives. A final aspect of the course will be to observe and analyze the impact of the civil rights movement on the 1990s.

**POLS 413. Music and the Civil Rights Movement. (4).**

The purpose of this course is to examine the southern civil rights movement (CRM) from 1954 to 1968. This course integrates discussion and analysis of the CRM with music. Music was very important to the Movement because it inspired both participants and supporters to continue the struggle until several victories were won. Emphasis in this course is on matching the music with a political event, ideology, and/or individual. This course includes discussion on the personal involvement in political and social activities by the singers and performers themselves. Tactics and strategies of the CRM are examined and their relationships to music are explored by relying on music with explicitly political lyrics and messages as well as those with lyrics and composition that convey spiritual and festive elements. (cross-listed with HNRS 413).

**POLS 414. Environmental Law and Policy. (4).**

A study of the regulatory environment in California and the U.S. as it applies to environmental issues, problems and the environmental industry. Includes a critical analysis of environmental challenges and the possible legal and political responses to them.

**POLS 415. Model United Nations. (1).**

This course is an in depth study and preparation for California Lutheran University's delegation to Model United Nations (MUN) meetings. The issues dealt with at MUN meetings are examined in this class. The course begins with an overview and then proceeds into an analysis of the role of the United Nations in world politics and international relations. Particular emphasis is placed on the demographics, politics, and foreign policies of the countries represented by CLU at the MUN meetings. Students are, for example, expected to explore the internal and external factors that lead to a particular country's foreign policies.

**POLS 416. Social Movements and Politics of Global Change. (4).**

Global processes shape both domestic and transnational political mobilization. Early 21st century global change has, for example, in some cases resulted in increased forms of social, economic, and political inequalities. In response some effected groups have managed to achieve some political gains and favorable economic policies through political mobilization and social movements. This course examines social movements and the processes surrounding mobilization of peoples into social movements for change. This course explores how the globalization of economic, social, and political life has affected social movements.

**POLS 418. Women and Politics. (4).**

This course is designed to explore the various ways that women shape and are shaped by political life at the local, national and global levels. The course examines specific policies as they relate to women as both policymakers and subjects of policy.

**POLS 419. Internet and Politics. (4).**

The Internet has changed the nature of human interaction and collaboration in unprecedented ways. Of particular interest to political scientists is how these changes have affected the political process. This course will examine the ways in which the Internet has changed politics. We will look at the Internet's effect in the gathering of public information, the formulation of public opinion, the structure of campaigns, political mobilization, policy advocacy and the generation of citizen input into the political process.

**POLS 432. Political Violence and Revolutions. (4).**

In this course we analyze the use of non-traditional warfare throughout history, including terrorism and guerilla insurgency, to promote political and social change. Topics include just war theory, theories of revolution, and the social and political consequences of political violence.

**POLS 440. Terrorism. (4).**

The course focuses on the violence of terrorism and the strategic uses and justification of violence in political and religious life. The course explores the ideology and methods of terrorism by and against governments. An examination of legal and extralegal policies designed to counter terrorism are explored. Prerequisites: Criminal Justice 101 and junior standing or permission of instructor. (cross-listed with Criminal Justice 440).

**POLS 443. Government and Politics of Africa. (4).**

After a brief description of the major politically relevant characteristics of Africa and key events in its colonial history, the course details the institutional structures and political processes of the newly independent African states. An evaluation of the problems of institutional transformation and political stabilization is included. (on demand).

**POLS 445. Legal Reasoning. (4).**

This course is designed for junior and senior students interested in law school, graduate school in public policy, or any profession touched by the law. (cross-listed with CRIM 445).

**POLS 461. International Law and Organization. (4).**

An examination of the basic principles of international law and organization, focusing on political foundations of the law of war and peace and contemporary problems of the United Nations.

**POLS 476. Capstone - Global Leaders and Leadership. (4).**

This course will examine and analyze global political leaders and groups. Political leadership requires skills that it shares with leadership in any area of life and those that are particular to politics. The goal of the course is to provide an understanding of the role of political leaders and groups in various political systems and situations. The relationships between leadership and democracy will be a primary theme throughout the course, but world leaders from various political systems will be studied. We will also discuss problems and questions that leaders across political systems have to deal with. In addition, the course will emphasize discussion of conflicting theories of effective leadership.

**POLS 477. Cityscapes. (4).**

Through art, politics, and philosophy, this course offers an in-depth study of the cultural landscape of selected global cities. Along with texts, films, and music from such centers as Prague and Mexico city, students develop their own "cityscape" from a region of their choice (often based on their off-campus experience) as their final projects. Open to all students, this course fulfills the requirement for a honors seminar and is the capstone for the Global Studies major. (cross-listed with GLST 477 and HNRS 477).

**POLS 478. The Pacific Rim. (4).**

Analyzes the Pacific Ocean as the new center for world trade and considers the various possibilities for an emerging trade bloc formalizing that trade. (cross-listed with BUS 478).

**POLS 481. Law and Society. (4).**

An examination of the interactions between the various components of a society's legal system (police, courts, prisons, etc.) and the individuals and groups residing therein, focusing on problems and proposed solutions.

**POLS 482. Selected Topics. (1-4).**

**POLS 483. Field Work in Political Science. (2-4).**

Supervised internships in agencies of national, state or local governments and political parties, providing work experience and opportunity for practical observation. Periodic conferences with the instructor and supervising official are required. (on demand).

**POLS 485. Seminar. (1-4).**

(on demand).

**POLS 490. Independent Study. (1-4).**

**POLS 492. Internship. (1-4).**

(graded P/NC only).

**POLS 497. Departmental Honors. (4).**

**POLS 498. Goodness, Truth, and Beauty. (4).**

This course examines the relationship between contemporary philosophy and contemporary biology in relation to the major triad of categories dealing with aesthetics, ethics, and the search for truth. (cross-listed with HNRS 498).

## Psychology

The psychology major at CLU is structured to meet three important objectives for those interested in the study of human thought, emotion and behavior. First, students learn about the empirical foundations of psychology. Second, psychology is a broad discipline and students are exposed to the variety of areas encompassed in the field. Third, the major is designed to enable students to apply what they have learned to the real world, thus teaching analysis, synthesis and critical thinking skills.

While lecture and textbook reading assignments are part of every course, faculty in the department encourage students to be active participants in learning through laboratory and case study projects. The three junior/senior capstone courses are practicums emphasizing the integration and application of theory and concepts, ethics, oral and written communication, and research methodology.

CLU's Psychology Department has a chapter of Psi Chi, a national honor society for psychology majors, and each year several of our students receive support to present projects at undergraduate research conferences in California.

The bachelor's degree in psychology is excellent preparation for graduate work in psychology, law and business. With a bachelor's degree, employment opportunities can be found in psychiatric rehabilitation programs, as research assistants and in the business world. Those with master's degrees may work in clinics and institutions, teach at a two-year college or work as school psychologists and counselors. For some clinical and research work, a doctorate is required.

CLU offers master of science degrees in clinical psychology and counseling psychology with a specialization in marital and family therapy as well as a PsyD degree in Psychology.

## Bachelor of Arts in Psychology

36 credits minimum; 24 credits upper division.

**Required Courses**

PSYC 200	General Psychology	4
PSYC 222	Abnormal Psychology	4
PSYC 312	Research Design and Statistics I	4
PSYC 313	Research Design and Statistics II	4
PSYC 331	Physiological Psychology	4

Select one of the following:		4
PSYC 304	Child and Adolescent Development	
PSYC 305	Adult Development and Aging	
PSYC 325	Theories of Personality	
PSYC 401	Social Psychology	
Select one of the following:		4
PSYC 315	Principles of Learning and Memory	
PSYC 321	Human Cognition	
PSYC 340	History and Systems of Psychology	
PSYC 416	Social Learning Theory: Research and Application	
Select one of the following:		4
PSYC 430	Applied Psychology Practicum	
PSYC 435	Introduction to Counseling and Psychotherapy	
PSYC 494	Clinical Practicum	
Psychology Elective Course (lower or upper division)		4
Total Hours		36

## Bachelor of Science in Psychology

44 credits minimum; 32 credits upper division.

Required Courses		
PSYC 200	General Psychology	4
PSYC 222	Abnormal Psychology	4
PSYC 312	Research Design and Statistics I	4
PSYC 313	Research Design and Statistics II	4
PSYC 331	Physiological Psychology	4
PSYC 412	Advanced Research Design and Statistics	4
Select one of the following:		4
PSYC 304	Child and Adolescent Development	
PSYC 305	Adult Development and Aging	
PSYC 325	Theories of Personality	
PSYC 401	Social Psychology	
Select one of the following:		4
PSYC 315	Principles of Learning and Memory	
PSYC 321	Human Cognition	
PSYC 340	History and Systems of Psychology	
PSYC 416	Social Learning Theory: Research and Application	
Select one of the following:		4
PSYC 435	Introduction to Counseling and Psychotherapy	
PSYC 494	Clinical Practicum	
PSYC 495	Research Practicum (capstone)	
Two Psychology Elective Courses (at least 4 credits upper division)		8
Total Hours		44

## Minor in Psychology

19 credits, 12 credits upper division.

PSYC 200	General Psychology	4
Three Upper Division Psychology Courses		12
Psychology Elective Credits (lower or upper division)		3
Total Hours		19

## Emphasis Area Option:

Because psychology may be applied to a wide range of human endeavors, students may add an emphasis area to the B.A. or B.S. to increase their marketability at graduation. Students select courses from an approved list of interdisciplinary courses to complete one of the following emphasis areas: Behavioral/Clinical Applications, Business/Organizational Applications, Family and Child Development, Health and Wellness Applications, Law and Criminal Behavior Applications, Psychobiology, Sports Psychology Applications.

Candidates for a California Secondary Teaching Credential should contact the School of Education Office for a complete list of course requirements for a Single Subject Waiver in Social Science.

## Courses

### Lower Division

#### **PSYC 200. General Psychology. (4).**

Covers the concepts and principles pertinent to psychological processes as social behavior, development, perception, thinking and symbolic processes, physiology, personality and psychological disorders. Introduces students to the empirical foundation of the discipline of psychology. Prerequisite to all courses in psychology except PSYC 203, PSYC 207 and PSYC 215.

#### **PSYC 203. Understanding Emotion. (4).**

This course provides an introduction to the study of emotions. Themes covered include the biological basis of emotions, individual differences in emotionality, emotions in social relationships, cultural understanding of emotions, emotions and psychopathology, and Ganzheitspsychologie. Emphasis on research methodology and ethics is also covered.

#### **PSYC 207. Mentor Leadership. (1).**

The Peer Advisor component of the first year of transfer student experience represents an ideal opportunity to positively influence undergraduate students' academics and personal success. Peer Advisors impact student development by supporting the acquisition and application of academic strategies, creating familiarity with campus resources and their appropriate use, and creating a sense of community at CLU in the first year. This important role can also be defined as a mentor. This course is designed to teach Peer Advisors the skills necessary to become mentors, and provides them with information and opportunities to help new students with their transition to college. We will examine various theories, and style types while honing in on leadership styles that are often found in mentors.

#### **PSYC 215. Perspectives on Women and Men. (4).**

An examination of current sociological and psychological theory and research on the causes and consequence of sex role expectations to individuals, society and the relationship between men and women.

#### **PSYC 222. Abnormal Psychology. (4).**

A survey and critique of traditional diagnostic categories of mental illness, plus an introduction to treatment approaches based on psychoanalytic, behavioral and humanistic models.

#### **PSYC 282. Selected Topics. (1-4).**

### Upper Division

#### **PSYC 304. Child and Adolescent Development. (4).**

Study of theories and principles pertaining to the developmental characteristics of children and adolescents in terms of the physical, mental, emotional and social development of the individual. Meets the gender/ethnic studies requirement.

#### **PSYC 305. Adult Development and Aging. (4).**

Study of theories and principles pertaining to the developmental characteristics of adults, including the aged, in terms of the physical, mental, emotional and social development of the individual. Meets the gender/ethnic studies requirement.

#### **PSYC 311L. Statistics Lab. (1).**

An introduction to computer applications for statistics, emphasizing data analysis and problem solving with contemporary statistical software programs. Corequisite: Psyc 311 (must be taken simultaneously).

**PSYC 312. Research Design and Statistics I. (4).**

Research Design and Statistics I is the first of a two course sequence in Psychology designed to prepare undergraduate psychology majors to develop the knowledge and skills needed to design, implement and analyze psychological research. Students will develop knowledge about ethical issues related to psychological research. Students will develop skill in critical reading and analyzing peer reviewed published research. This course will also introduce students to a variety of research designs and statistical analyses including qualitative, descriptive and correlation methodologies. (Prerequisite: MATH 115 or MATH 151 or equivalent).

**PSYC 313. Research Design and Statistics II. (4).**

Research Design and Statistics II is the second course in a two course sequence designed to assist undergraduate psychology majors in developing the knowledge and skills needed to design, implement and analyze psychological research. Building on the skills learned in PSYC 312, students will continue to develop knowledge about psychological research with a focus on experimental designs, quasi-experimental designs and inferential statistics. Students are required to design and implement an original research project using an experimental design. This course is a writing intensive course (Prerequisite: PSYC 312).

**PSYC 315. Principles of Learning and Memory. (4).**

An overview of the major principles of learning and memory. Includes Pavlovian and instrumental conditioning as well as verbal learning and memory. Includes an examination of topical issues and areas of research in learning theory.

**PSYC 317. Cultural Psychology. (4).**

This course provides a systematic overview of knowledge about cultural organization of human psychological functions, and how psychology as a research discipline can study these functions. Strong theoretical and methodological orientation is included.

**PSYC 321. Human Cognition. (4).**

Examines perception, attention, memory, language and problem solving. In addition to studying research and theory, students experience and observe cognitive processes in computer labs and class demonstrations. Cognitive deficits and rehabilitation are discussed in each topic area.

**PSYC 325. Theories of Personality. (4).**

The analysis of the theories of personality in terms of structure, dynamics and development. Biological, social and cultural determination of personality are considered, as well as characteristic research and research methods.

**PSYC 330. Psychological Assessment. (4).**

Studies the principles and practices of group and individual testing in the fields of intelligence, aptitude, achievement, personality and vocational interest. Includes an introduction to the MMPI-2 and Wechsler tests and projective techniques.

**PSYC 331. Physiological Psychology. (4).**

Studies the physiological aspects of human behavior, with special emphasis on neurological structure and functions as related to sensation, perception and psychopathology.

**PSYC 340. History and Systems of Psychology. (4).**

An overview of the historical foundations of contemporary psychology, including an examination of major systems of thought and theoretical applications of each in the areas of sensation, perception, learning, motivation, emotion, personality and social behavior.

**PSYC 341. Criminal Psychology. (4).**

Students examine theory, research, law and case studies to gain an understanding of the behavior of violent offenders. Research into biological, psychological and social causes is examined and evaluated. Additional topics include the role of the forensic psychologist, the science of profiling, and the definitions and use of the insanity defense. (cross-listed with CRIM 341).

**PSYC 345. Health Psychology. (4).**

Examines the use of behavior therapy procedures in relation to the prevention and treatment of various disorders such as chronic pain, cancer, hypertension, alcoholism, smoking and eating disorders. The use of psychological issues and treatment procedures as they relate to etiology and maintenance of these disorders is emphasized and specialized areas such as clinical behavioral pediatrics, type A behavior and terminal illness are discussed.

**PSYC 401. Social Psychology. (4).**

Studies the influence of personal, group and social systems on individual attitudes and behavior. Includes socialization, social perception, attraction, aggression, prejudice, conformity, altruism and related topics, as well as the discussion of theories, methods and contemporary research.

**PSYC 412. Advanced Research Design and Statistics. (4).**

Advanced Research Design and Statistics is a required course for undergraduate psychology majors seeking a bachelor of science degree in psychology. This course is designed to provide students with an opportunity to build on their knowledge of correlational and experimental research methodologies and basic approaches to statistical analyses. Taught as a seminar course, students will be required to design and implement an original research project which utilizes a mixed methodological approach. In addition, students will be introduced to the theoretical underpinnings of advanced statistical analyses (Prerequisite: PSYC 313).

**PSYC 416. Social Learning Theory: Research and Application. (4).**

Covers the basic principles and procedures of behavior modification and learning theory as they apply to areas such as child and classroom management, behavioral self-change projects, medical psychology, developmental disabilities and mental health settings. Students read current literature in behavior analysis related to the etiology and treatment of addictive behavior disorders, health psychology, anxiety disorders and behavioral disorders.

**PSYC 422. Child Psychopathology. (4).**

This course is designed to give students an introduction to abnormal child psychology. We will study the major disorders typically diagnosed in childhood, including the DSM-IV-TR diagnostic criteria, the current information on the etiology of the disorders, as well as the current research on the most effective assessment and treatment for these disorders.

**PSYC 430. Applied Psychology Practicum. (4).**

Involves the application of psychological principles to personal and social problems of everyday life. Topics include positive psychology, the nature of personality, problem solving, stress, psychological disorders, career development and intimate relationships. Theory is integrated with practical application. Students conduct and present an individual experiment or project.

**PSYC 435. Introduction to Counseling and Psychotherapy. (4).**

An introduction to the theories, problems and techniques of counseling and therapy. Prerequisites: PSYC 222 and PSYC 325.

**PSYC 447. Theories & Practice of Leadership. (4).**

Examines leadership from theoretical, historical and practical perspectives. Includes topics of trait, behavioral and contingency theories; the influence process; management vs. leadership, leadership and followership. Survey of leadership theory and research; characteristics of leaders, theories of leadership origins and psychological and social correlates. Interaction of personal and organizational factors in determining leadership effectiveness. (ADEP only).

**PSYC 450. Sensation and Perception. (4).**

Introduction to the basic sensory and perceptual processes of humans with an emphasis on vision and audition.

**PSYC 482. Selected Topic. (4).**

**PSYC 490. Independent Study. (1-4).**

**PSYC 492. Internship. (1-4).**

(graded P/NC only).

**PSYC 493. Applied Behavior Analysis: a Clinical Practicum. (4).**

The purpose of this course is to help each student acquire outstanding research and clinical skills within the field of applied behavior analysis. Specifically, each student will (a) fully develop an individual area of expertise related to child behavior disorders within the developmentally disabled population; (b) write a scholarly research paper directly related to the student's assigned area of expertise; and (c) learn skills related to conduction of an in-home behavioral analysis with a caseload of assigned families within the Ventura County area. Students will also learn a comprehensive set of skills related to performing an in-depth review of the literature using innovative Internet research strategies. Prerequisite: PSYC 416.

**PSYC 494/494A. Clinical Practicum. (4,4).**

This course has two components - a weekly seminar in a clinical setting and six hours per week in a field placement working with mentally ill or developmentally disabled patients. Students participate on an interdisciplinary treatment team and, under the supervision of the clinical staff, are taught to implement and evaluate behaviorally based clinical interventions with selected patients. Prerequisite: PSYC 222. Recommended: PSYC 416.

**PSYC 494B. Clinical Practicum. (4).**

This course has two components - a weekly seminar in a clinical setting and six hours per week in a field placement working with mentally ill or developmentally disabled patients. Students participate on an interdisciplinary treatment team and, under the supervision of the clinical staff, are taught to implement and evaluate behaviorally based clinical interventions with selected patients. Prerequisite: PSYC 222. Recommended: PSYC 416.

**PSYC 495. Research Practicum (capstone). (4).**

This course offers students the opportunity to work on a major research project or to design and carry out their own research study. Students gain a working knowledge of all aspects of research, which include planning and design of studies, project coordination, administration of measures and data management. Prerequisites: PSYC 312 and PSYC 313; 3.4 Psychology GPA; 16 upper division units in Psychology.

**PSYC 497. Departmental Honors. (4).**

## Religion

The religion curriculum at California Lutheran University challenges students to engage in the academic study of religion and to explore the religious questions that people have asked throughout history, such as the existence and nature of God, the meaning of life, how we should live, and what awaits us after death. While the primary focus of the religion curriculum is the Christian tradition, courses are also offered in the other major religious traditions of the world as well as in biblical languages.

The religion degree program at CLU provides a solid grounding in religion, which supports the liberal arts emphasis of the University and prepares students for the myriad religious issues they will face in life. It also prepares students for graduate study in religion and a variety of ordained and non-ordained ministries in the various denominations of the Christian church, such as Christian education, church music, counseling and missionary service.

Opportunities exist for students to do internships and independent studies, allowing them to explore areas of potential career interest, and students majoring in religion graduate from CLU well-prepared for seminary study. In addition, Lutheran students are eligible for the Associate in Ministry program for lay persons who are certified by the Evangelical Lutheran Church in America.

## Bachelor of Arts in Religion

36 credits minimum.

REL 100	Introduction to Christianity	4
REL 435	Faith and Reason-Capstone	4
Select one of the following:		4
REL 310	Exploring the Old Testament	
REL 311	The Old Testament: Torah	
REL 312	Old Testament Prophets	
REL 313	Old Testament: Writings	
REL 315	Biblical Hebrew I	
REL 316	Biblical Hebrew II	
Select one of the following:		4
REL 320	Exploring the New Testament	
REL 321	Matthew, Mark and Luke	
REL 322	Gospel of John	
REL 323	Paul and His Letters	
REL 324	Jesus	
REL 325	Biblical Greek I	
REL 326	Biblical Greek II	
REL 327	Revelation and Apocalypse	
Select one of the following:		4
REL 331	Christianity in the Roman World	
REL 332	Medieval and Reformation Christianity	
REL 333	World Christianity Since 1600	
REL 334	Christianity in America	
REL 335	Martin Luther	
Select one of the following:		4
REL 340	Exploring Christian Theology	
REL 341	Varieties of Christian Theology	
REL 344	God in Christian Thought	
REL 345	Christ and Salvation	
REL 346	Science and Christian Theology	

REL 347	Liberation and Theology	
Select one of the following:		4
REL 350	Contemporary Christian Ethics	
REL 351	Global Ethics	
REL 352	Environmental Ethics	
REL 353	Violence, Religion and Ethics	
REL 354	Theology and Business Ethics	
REL 356	Sexual Ethics	
REL 357	Malcolm X and M.L. King	
Select one of the following:		4
REL 360	Jews and Judaism	
REL 370	Global Religions	
REL 371	Western Religions	
REL 372	South Asian Religions	
REL 374	Women and Religion	
Religion Elective Course (lower or upper division)		4
Total Hours		36

### Minor in Religion:

20 credits minimum;

REL 100	Introduction to Christianity	4
Two courses in at least two different 300-level religion areas		8
Two Religion Elective Courses		8
Total Hours		20

### Religion Minor with Church Vocations Emphasis:

20 credits minimum;

REL 100	Introduction to Christianity	4
At least one 300-level course in Biblical Studies		4
At least one 300-level course in Church History or Theology		4
REL 390	Exploring Church Vocations	4
REL 492	Internship	4
Total Hours		20

### Religion Minor with Youth Ministry Emphasis:

20 credits minimum;

REL 100	Introduction to Christianity	4
REL 350	Contemporary Christian Ethics	4
REL 492	Internship (Supervised internship in Christian youth work)	1-4
Three other related courses <sup>1</sup>		12
Total Hours		21-24

<sup>1</sup> With prior approval, two courses (8 credits) may be applied from courses in other academic departments.

## Courses

### Lower Division

**REL 100. Introduction to Christianity. (4).**

This study of Christianity explores the formation and structure of the Hebrew Bible/Old Testament and New Testament and the development of Christianity from the first century to the present, including its theological and ethical traditions.

**REL 282. Selected Topics. (1-4).**

**REL 285. Interim Travel Course. (1).**

### Upper Division

**REL 300. Exploring Biblical Traditions. (4).**

This course will trace the development of religious consciousness in human experience, examine the foundations of Judaism and Christianity in the Hebrew and Christian scriptures, explore the rise and expansion of Christianity in its unity and diversity, and explain its core beliefs and practices.

**REL 310. Exploring the Old Testament. (4).**

This introduction to the literature and setting of the Old Testament/Hebrew Bible emphasizes selected writings and themes. Attention is given to the historical and cultural context and the challenge of interpreting these writings in the 21st century.

**REL 311. The Old Testament: Torah. (4).**

An examination of the first five books of the Old Testament/Hebrew Bible, focusing on selected passages and themes, the historical and cultural context of their composition and the challenge of interpreting them in the 21st century.

**REL 312. Old Testament Prophets. (4).**

An examination of the prophetic books of the Old Testament/Hebrew Bible, focusing on selected passages and themes, the historical and cultural context of their composition and the challenge of interpreting them in the 21st century.

**REL 313. Old Testament: Writings. (4).**

An examination of Wisdom Literature, Psalms and other writings in the Old Testament/Hebrew Bible, focusing on selected passages and themes, the historical and cultural context of their composition and the challenge of interpreting them in the 21st century.

**REL 315. Biblical Hebrew I. (4).**

A two-semester sequence of study leading to a reading knowledge of the Hebrew Bible/Old Testament. Basic Hebrew grammar and vocabulary are studied in conjunction with questions of cosmology, the understanding of history and the theological perspective of ancient Israel. (cross-listed with HEBR 315 & HEBR 316).

**REL 316. Biblical Hebrew II. (4).**

A two-semester sequence of study leading to a reading knowledge of the Hebrew Bible/Old Testament. Basic Hebrew grammar and vocabulary are studied in conjunction with questions of cosmology, the understanding of history and the theological perspective of ancient Israel. (cross-listed with HEBR 315 & HEBR 316).

**REL 320. Exploring the New Testament. (4).**

A survey of the New Testament writings in their first century Mediterranean cultural setting that explores how early Christian communities adapted Jewish Tradition and society, as well as the ideas, cultures, and beliefs of ancient Greece and Rome.

**REL 321. Matthew, Mark and Luke. (4).**

A study of the Synoptic Gospels designed to help students grasp the interrelationships, structures, issues and implications these books present; and gain an appreciation of the richness and variety of the religious, literary and political world in which they emerged.

**REL 322. Gospel of John. (4).**

A study of the Fourth Gospel, particularly the symbols John uses to describe Jesus (shepherd, living water, bread of life, vine) and his followers (sheep, thirsty, hungry, the branches). How do these symbols affect people's behavior in Jesus' time and today and do these symbols have political power?

**REL 323. Paul and His Letters. (4).**

An introduction to the study of Paul's letters and theology in relation to his social world, using historical and literary approaches.

**REL 324. Jesus. (4).**

Who is Jesus? This course begins with the four gospels and asks how each writer understands Jesus in the first century Jewish and Roman worlds. Students then study art and literature from around the world to ask how Jesus is understood in different cultural and political perspectives today.

**REL 325. Biblical Greek I. (4).**

A beginning study of biblical Greek that builds a foundation in the essentials of grammar, vocabulary, and translation. Includes readings in Mark and Philippians, as well as (in the second semester) discussion of theological implications. (Cross-listed with GREE 325 & GREE 326).

**REL 326. Biblical Greek II. (4).**

A beginning study of biblical Greek that builds a foundation in the essentials of grammar, vocabulary, and translation. Includes readings in Mark and Philippians, as well as (in the second semester) discussion of theological implications. (Cross-listed with GREE 325 & GREE 326).

**REL 327. Revelation and Apocalypse. (4).**

An introduction to the book of Revelation in the New Testament, and other apocalyptic themes in literature from the Prophets to the present times. This course explores the social and political dimensions of apocalyptic literature in particular situations around the globe.

**REL 331. Christianity in the Roman World. (4).**

A survey of the emergence, growth, and development of the Christian movement from the time of the apostles to the disintegration of the Roman Empire in the West and to the fall of Constantinople in the East. This course will focus on Christianity as actually experienced and practiced by its earlier adherents in the multinational context of empire, and will look at textual, artistic, and material sources of evidence to gain a sense of the Christian past. (cross-listed with HIST 331).

**REL 332. Medieval and Reformation Christianity. (4).**

A survey of the development of Christianity in the post-Roman West, focusing on the rise of papacy, the development of distinctive Western Christian practices and doctrines, and the important role of the church in shaping European society. Special attention will be given to ways the medieval church handled difference and dissent, and to the reform movements of the later Middle Ages and the Protestant and Catholic reformations they brought about. (cross-listed with HIST 332).

**REL 333. World Christianity Since 1600. (4).**

A survey of the history of post-Reformation Christianity as it spread beyond Europe and became truly a global religion, with special emphasis on regional variations, issues of class and gender, and the challenges of modernity. Much of the course will focus on Christianity as variously experienced in the tumultuous 20th century, and in this will underscore both continuities and the rich diversity in the modern and postmodern Christian communities that exist throughout the world today. (cross-listed with HIST 333).

**REL 334. Christianity in America. (4).**

This course will trace the historical development of Christianity in America from its early encounter with Native American religions to its contemporary encounter with other global religions. Beginning with Spanish, French and English colonial empires, emphasis will be placed on the arrival of diverse religious refugees, the rise of uniquely American religious groups and the relation of Christianity to various socio-political movements and to the diversity of persons and cultures represented in American public life today. (cross-listed with HIST 335).

**REL 335. Martin Luther. (4).**

A seminar course introducing the life and thought of Martin Luther (1483-1586), based on lectures, films, and close reading and discussion of his works. The course aims to provide students with a working knowledge of Luther's main teachings and their impact, and to put both his ideas and his legacy in historical context.

**REL 340. Exploring Christian Theology. (4).**

A survey of the fundamental doctrines of Christianity, including their biblical roots, classical formulations, challenges posed by the modern world and some contemporary reformulations.

**REL 341. Varieties of Christian Theology. (4).**

A study of some contemporary currents in Christian theology, such as evangelical theology, the various liberation theologies (feminist, black, Latino, Latin American), and the recent scientific theologies.

**REL 344. God in Christian Thought. (4).**

An examination of traditional and contemporary Christian understandings of God, including the person and attributes of God, God's creative work, the divine-human relationship, sin, and the traditional problem of evil.

**REL 345. Christ and Salvation. (4).**

A study of traditional and contemporary understandings of the historical person of Jesus, his identity as the Messiah/Christ, and his role in God's saving work.

**REL 346. Science and Christian Theology. (4).**

An examination of the historical and contemporary relationships that have existed between modern science and Christian theology through study of particular areas of convergence, examples of conflict and integration, and the scientific, philosophical and theological issues involved.

**REL 347. Liberation and Theology. (4).**

An introduction to theologies of liberation in Latin America and in Ventura County, this course asks how social, economic, and political readings of the Bible can be used to dominate and liberate communities.

**REL 350. Contemporary Christian Ethics. (4).**

An introduction to contemporary Christian ethics; its relationship to the Bible and Christian communities; and thinking on such important personal and social issues as sexual behavior, human reproduction, racial and ethnic relations, the taking of human life, poverty and economic issues, and the environment.

**REL 351. Global Ethics. (4).**

A variety of issues have arisen which need to be examined from global perspective: political repression, social change, terrorism and war, economic globalization, immigration, human rights, health, and the environment. This course examines these issues from the perspectives of global religions, ethics, social theory, and social movements.

**REL 352. Environmental Ethics. (4).**

The care of the earth demands that we address complex issues such as patterns of consumption and production, population growth, the rights of animals, plants and land as well as the rights and responsibilities of persons, businesses, and nations. The course examines historical, political, socio-economic, philosophical and religious perspectives.

**REL 353. Violence, Religion and Ethics. (4).**

A study of various forms of violence, such as sexual and domestic violence, political repression, terrorism and war. The course examines religious justification of and resistance to violence, using cases from diverse locations and religions.

**REL 354. Theology and Business Ethics. (4).**

This course applies ethical theory to business decisions within the context of theological reflection. With a strategic focus, the course will investigate the relationship between theological ethics and the economic concerns of managers. The course is particularly designed to help students become effective ethical agents by developing the skills to apply ethical principle to strategic business decisions. (cross-listed with BUS 354).

**REL 356. Sexual Ethics. (4).**

A study of sexual ethics from religious and philosophical perspectives, moving from an examination of understandings of gender, sexuality, and sexual identities to discussion of issues such as marriage and family; contraception, abortion and reproductive technologies; sexual violence, and HIV/AIDS.

**REL 357. Malcolm X and M.L. King. (4).**

A study of the religious ethics of Martin Luther King Jr. and El Hajj Malik Al Shabazz (Malcolm X) through their own speeches and writings and the works of various interpreters. We examine relevant aspects of African-American history and culture, including the role of women in the civil rights movement.

**REL 360. Jews and Judaism. (4).**

A study of the elements of traditional Judaism in biblical, rabbinic and modern times.

**REL 370. Global Religions. (4).**

A consideration of themes, issues, types of figures and phenomena from the religions of the world, selected to illustrate the ways in which the religious traditions are shaped by and in turn effect processes of globalization that inform the human experience historically and in the present.

**REL 371. Western Religions. (4).**

Drawing on the religious traditions of Judaism, Christianity and Islam, students will examine the varieties of the religious experience, historically and comparatively represented by adherents of these three religious communities.

**REL 372. South Asian Religions. (4).**

Drawing on the religious traditions of South Asia (modern India, Pakistan, Bangladesh, and Sri Lanka, students will consider the varieties of the religious experience, historically and comparatively represented by the adherents of these religious communities.

**REL 374. Women and Religion. (4).**

A consideration of women and women's issues within the context of the study of world religious traditions.

**REL 375. Islam. (4).**

In this introductory course, students learn the history of Islam from the Prophet Mohammed and the roots of the religion in Arab culture, to the spread of Islam as a global religion across many cultures. Students will analyze the variety of social, political, and cultural ways in which Muslims live out their faith around the world and in the U.S. Global Emphases may change year to year but will include 3-5 different geographical areas such as: Egypt, Asia, Turkey, Africa, Spain, Indonesia, and Europe.

**REL 380. Jesus in Film and History. (4).**

A study of the historical person of Jesus through readings in the gospels, historical Jesus research from the past two centuries, and the various cinematic portraits of Jesus from the silent picture era to the present.

**REL 381. Religion, Identity, and Culture. (4).**

This course explores the interaction of religion and culture in the United States. We will examine uses of religious symbols and narratives in the formation of personal, gender, ethnic and cultural identities, through analysis of memoirs and novels.

**REL 390. Exploring Church Vocations. (4).**

This course is designed for students interested in exploring the possibility of lay or ordained ministry in the church on either a professional or voluntary basis. Its primary focus is on the theory and practice of youth and family ministry, and the theology and art of oral communication in religious settings.

**REL 392. Liturgy and Worship. (4).**

An introduction to the Christian liturgical tradition, particularly that of Western Christianity. It will include some comparison with non-Christian religious customs, and will give importance to the development of worship in the Protestant traditions. The course's approach is historical, but it may also include some practical training if appropriate to student needs. Christian hymnody and liturgical music will also be introduced, with an emphasis on the distinctive Lutheran contributions in those areas. (cross-listed with MUS 392).

**REL 412. Christian Art in the Middle Ages. (4).**

Students survey the religious art of the Middle Ages - primarily Christian, but also some early Jewish and Islamic developments - identifying significant works of architecture, sculpture, and painting, while exploring Christian concepts and beliefs, liturgy and worship. Students consider art in relation to cultural needs, examining works in historical, religious social, economic, and political contexts. Students become familiar with visual forms, styles, narratives, and symbols of Christian art, as well as with broader, unifying themes shared by different cultures. The course content covers twelve centuries and geographically spans the Western edges of Europe to the Middle East. We also pay attention to instances of cultural exchange (the circulation of ideas, art forms, and artists through Europe and the Middle East). (cross-listed with ART 412).

**REL 435. Faith and Reason-Capstone. (4).**

Team-taught by professors in philosophy and religion, the course is an interdisciplinary exploration of the perennial tensions and cross-fertilizations between faith and reason, including examination of arguments for and against God's existence, the problem of evil, the nature of religious language, and the relationship between science and religion. It serves as the capstone for philosophy and religion majors and a senior seminar in the honors program. It is also open to juniors and seniors from all disciplines. (cross-listed with PHIL 435 and HNRS 435) (Spring).

**REL 482. Selected Topics. (4).****REL 485. Travel Seminar. (2-4).****REL 490. Independent Study. (1-4).****REL 492. Internship. (1-4).**

(graded P/NC only).

## Science

Scientific Computing is the field of study concerned with modeling and analyzing natural and engineered processes using computational techniques. Scientific Computing is a multidisciplinary field of study, both contributing to and benefiting from computer science, mathematics, and the natural and physical sciences.

The Applied Scientific Computing minor offers students a foundation in scientific computing. The program is designed to encourage students in all scientific disciplines with an interest in a multidisciplinary perspective on the sciences.

### Minor in Applied Scientific Computing

17 credits minimum; 9 credits upper division

SCI 370	Scientific Inquiry in the Digital Age	4
SCI 470	Scientific Computing Seminar	2
MATH 251	Calculus I	4
or MATH 252	Calculus II	
SCI/CSC 205	Programming for Scientists	4
or CSC 210	Introduction to Computer Programming	
Any course in the natural and physical sciences numbered 200 or higher with a lab section		3-4
Total Hours		17-18

**Notes:**

MATH 252 can be replaced with any Math course with MATH 252 as a prerequisite.

CSC 210 can be replaced with any Computer Science course with CSC 210 as a prerequisite.

All courses must be approved by a faculty advisor associated with the scientific computing program at CLU.

## Courses

### Lower Division

**SCI 205. Programming for Scientists. (4).**

This course introduces the principles of computer programming, problem-solving methods, and algorithm development from a scientific perspective. The programming languages covered are C (a compiled language popular among engineers and mathematicians), and Perl (a scripting language popular among bioengineers) both in wide use in scientific fields. Also covered are introductory software engineering techniques and tools necessary to convert a functional specification to a properly functioning program. Examples and assignments will be drawn from the natural sciences. (Cross listed with CSC 205).

**SCI 282. Selected Topics. (1-4).**

### Upper Division

**SCI 370. Scientific Inquiry in the Digital Age. (4).**

A team-taught seminar on the philosophy of the sciences - natural, physical, and mathematical - and the practical application of these philosophies. Emphasis will be placed on the role of scientific computing in the sciences. Prerequisites: MATH 251, SCI 205 / CSC 205 or CSC 210, and a course in the natural or physical sciences with lab work.

**SCI 470. Scientific Computing Seminar. (2).**

A research seminar with content designed to fit student need. Students will engage in the modeling and analysis of processes. Students will be expected to synthesize their experiences from all areas of the minor, culminating in a report using scientific computing methods and tools to analyze a sufficiently complex real world data set or process. Prerequisite: SCI 370.

## Sociology

The mission of the Sociology Department is to provide students with opportunities to gain the knowledge and skills required to study groups, organizations, subcultures, cultures and societies. Our students study the dynamics of social interactions, identities, inequalities and social change by investigating social structures, norms and values which shape our lives, our institutions and our societies.

The primary goals of the Sociology Department are as follows:

- 1. Develop a sociological imagination in our students.** The sociological imagination is defined as the ability to grasp the relationship between the individual and society in order to understand how larger social patterns influence the lives of individuals and, conversely, how individuals can exercise agency to effect change in society. Key to the development of a sociological imagination is fostering the growth of students' creative and critical thinking skills.
- 2. Provide a strong disciplinary foundation.** The foundation of the discipline of sociology rests upon two fields: research methods and social theory. Two required courses in research methods, one in quantitative methods and one in qualitative methods, provide the knowledge and skills necessary to design ethical and rigorous studies that involve the collection and analysis of empirical evidence. Two required courses, one in classical sociological theories and one in contemporary social theories, provide sociological perspectives that inform the selection of research methods for a particular project

and guide the analysis of collected data. Together, these courses provide students with the abilities to produce theoretically driven and empirically grounded scholarship.

**3. Encourage growth in each student’s ethical judgment and understanding of identity.** We emphasize the development of ethical judgment in the production of and use of sociological knowledge because sociological knowledge has applied value when fostering intellectual growth and emotional maturity in students. In addition, we encourage students to examine diverse, complex, and situated identities, while increasing their awareness and understanding of the sources of social power which shape their own and others’ experiences.

**4. Prepare students to live meaningful and productive lives.** The sociology department is committed to helping student live meaningful lives that are filled with an ever-present critical awareness of social dynamics and with a commitment to bring about positive social change. In addition, the sociology department offers courses which develop a broad base of knowledge and skills applicable to a variety of occupational fields and various areas of graduate study.

## Bachelor of Arts in Sociology

34-36 credits minimum, 27-28 credits upper division.

Choose one from the following: (3-4 units)		3-4
SOC 101	Introduction to Sociology	
SOC 103	Contemporary Global Issues	
SOC 407	Classical Sociological Theory	4
SOC 420	Contemporary Social Theory	4
SOC 430	Quantitative Methods	4
SOC 440	Ethnographic Methods - Capstone	4
Sociology Electives (at least 11-12 must be Upper Division) <sup>1</sup>		15-16
Total Hours		34-36

<sup>1</sup> One elective may be taken from other departments as long as the course is pre-approved by the Sociology Chair as having significant sociological content.

## Minor in Sociology

19 credits minimum, 12 credits upper division.

SOC 101	Introduction to Sociology	4
Sociology Elective Credits (12 credits must be Upper Division)		15
Total Hours		19

## Courses

### Lower Division

#### **SOC 101. Introduction to Sociology. (4).**

Provides the foundational concepts and theories used by sociologists to understand social life. The student will be introduced to the power of social forces to affect human behavior - culture, socialization, social structure, inequality, social institutions such as family, religion, education and the effects of social change.

#### **SOC 103. Contemporary Global Issues. (4).**

A critical review and assessment will be undertaken of the origin and present condition of the major global issues and problems and how these are being addressed by the local and international organizations. We will also explore ideas and concepts of human trafficking, human rights, coexistence among peoples of different cultures and other critical global issues such as poverty eradication, environmental degradation, health crisis and family/gender issues.

**SOC 200. Sexuality and Society. (4).**

This course, a lower division version of SOC 300, is geared towards those who are not completing a major or minor in sociology. Primarily focusing on the United States, this course examines sexuality through a sociological lens. We will explore how sexual attitudes and behaviors have changed over time, looking at which sexual attitudes and behaviors are considered "normal" vs. "deviant," and "moral" vs. "immoral" in mainstream society and different subcultures. At both the interpersonal and societal levels, the course will examine how these beliefs influence societal responses to current social problems related to sexuality: adolescent sexuality, teen pregnancy, contraception, STDs, sex education, sexualized violence, prostitution, pornography, sexual orientation, changing gender roles, and portrayals of sex in popular culture. (Taking this course for credit disallows taking SOC 300 for credit.).

**SOC 210. Introduction to Women's Studies. (4).**

This interdisciplinary course uses a social constructionist perspective to explore some major issues in contemporary women's studies: cultural constructions of femininity; women's roles in and perspectives on education, religion, politics, law, economics, and health care; women and the arts; feminist theories and philosophies. (cross-listed with WOMS 210).

**SOC 221. Popular Culture. (4).**

An introduction to important readings on popular culture from the perspectives of sociology and communication studies. The study of popular culture takes the forms, content, values and norms of popular culture products as data for analysis and critique. Students will focus on mass communication forms of popular culture such as movies, advertisements, television shows, magazines, music and music videos. This course will focus on the period from 1945 to the present. (cross-listed with COMM 221).

**SOC 230. Introduction to World Cultures. (4).**

People from different continents who speak different languages and possess different values and religions find themselves living closer and closer together in a new global village. To all members of this new community, cultural anthropology offers a unique invitation to examine, explain and critique human diversity. This course will introduce the student to the concepts, theories and methods used by anthropologists to analyze cultural systems particularly those from non-Western societies.

**SOC 282. Selected Topic. (1-4).****SOC 285. Travel Course: Exploring Japanese Society and Culture. (2).**

Japan has been one of the most economically advanced countries since the rise of globalization, yet unlike Europe and the U.S., it is a country of no Western origin. While globalization has accelerated the process of Americanization, Japan still retains uniquely Japanese customs, values/beliefs and social institutions. The course will meet during the spring semester and examine Japanese society/culture and the impact of globalization through documentary films, academic articles, popular magazines and Internet sources. Right after the semester, the students will visit Japan for approximately two weeks to directly observe interactions of Japanese people and experience Japanese life style. Back in the U.S., the students are required to write a reflection paper on their experiences in Japan. Minimum Sophomore standing.

## Upper Division

**SOC 300. Sexuality and Society. (4).**

Primarily focusing on the United States, this course examines sexuality through a sociological lens. We will explore how sexual attitudes and behaviors have changed over time, looking at which sexual attitudes and behaviors are considered "normal" vs. "deviant," and "moral" vs. "immoral" in mainstream society and different subcultures. At both the interpersonal and societal levels, the course will examine how these beliefs influence societal responses to current social problems related to sexuality: adolescent sexuality, teen pregnancy, contraception, STDs, sex education, sexualized violence, prostitution, pornography, sexual orientation, changing gender roles, and portrayals of sex in popular culture. Minimum Sophomore standing.

**SOC 318. Immigration in the Global Age. (4).**

International immigration is an integral part of the globalization processes. This course explores the key current theoretical and empirical debates in the study of this global phenomenon. The course covers transnational networks, the formation and implementation of labor recruitment (including human trafficking), migration policies, political conflict, economic and social adaptation, the development of socio-cultural traditions (ethnic identities) and the transformation of gender relations. Minimum Sophomore standing. (cross-listed with GLST 318).

**SOC 320. Religion and Culture. (4).**

Investigates the relationship between religion and various forms of culture in contemporary American society, including literature, art, television, film, and popular music. Special emphasis will be given to the culture wars, to the sacred in everyday life, and to the production and reception of religious culture.

**SOC 321. Medical Sociology. (4).**

An introduction to the examination of health, illness, and healing from a sociological perspective. The course will address relevant sociological theories and research methods. The field of medical sociology operates independently from the medical profession and takes the perspective, values, norms, and practices of medicine as data for analysis and critique. This course will primarily focus on issues of health, illness, and healing in the U.S. Minimum Sophomore standing.

**SOC 322. Gender and Society. (4).**

This course will examine the significance of gender in structuring experiences and social institutions. Emphasis upon the experiences, perspectives, and contributions of gendered social groups and upon the intersection of gender with other social categories, such as race, class, and sexuality. Minimum Sophomore standing.

**SOC 330. Death and Dying. (4).**

It is in thinking about death that we begin to understand the meaning of life. Using sociological, psychological and spiritual perspectives, this course will examine such topics as American cultural influences on the meaning of death, how we die in a technological age, euthanasia and legal issues, the funeral and other death rituals, suicide, life after death, children and death, the grief process and cross-cultural perspectives on death and dying. The course will use active-learning methods such as journaling, field trips, guest speakers, interviewing and participant observation. Minimum Sophomore standing.

**SOC 334. Sociology of Education. (4).**

This course provides an overview of sociological theories of education and current research about education in the United States. Analysis will include the school as a social institution comprised of specific roles, values, and norms. In so doing we will examine the role of schooling in both reproducing and redressing social inequalities with an emphasis on how social class, race, gender, ethnicity, immigration, and sexual orientation impact the organization of school, the development of curricula, and the experiences of students. Minimum Sophomore standing.

**SOC 340. Family and Intimate Relationships. (4).**

The course examines the peculiarity of the "modern" Western family system in historical and cross cultural perspectives. The course will explore transformative effects of globalization and post-industrial economy on family practices, structures and intimate relationships. In addition, the course will address the intersections between family life and social structures, such as race/ethnicity, social class and sexuality. Minimum Sophomore standing.

**SOC 360. Racial and Ethnic Relations. (4).**

The course examines the historical, political, economic, and cultural dimensions of racial and ethnic relations in the United States from the mid 1800s to the present, with an emphasis on racism. Includes an investigation of the link between residential segregation and opportunity for African Americans, a critical interrogation of whiteness and white privilege, and an exploration of racism in California, particularly for California Indians. Minimum Sophomore standing.

**SOC 370. Deviance in U.S. Society. (4).**

Introduces students to sociological concepts of deviance, social control, social power, and identity construction/management. Focusing on the topic of deviance, an exploration of how groups of people have the power to shape and apply social definitions of "normalcy" and "morality" will provide an analytical lens through which to look at the consequences for those labeled as "deviant." Minimum junior standing. (cross-listed with CRIM 370).

**SOC 407. Classical Sociological Theory. (4).**

A survey of the most significant developments in classical sociological theory, emphasizing the critical reading of primary source materials. The characteristics and origins of major sociological paradigms are explored, including the works of Marx, Weber, and Durkheim. Prerequisite: SOC 101; Minimum Junior standing.

**SOC 420. Contemporary Social Theory. (4).**

This course is a critical examination of significant developments in contemporary social theory, such as symbolic interactionism, postmodernism, poststructuralism, critical theory, feminist theory, and queer theory. Prerequisites: SOC 407; Minimum Junior standing.

**SOC 430. Quantitative Methods. (4).**

This class will prepare students to critically analyze and conduct quantitative sociological research. Emphasis is on the use of surveys, the primary quantitative method used in social research. Students will learn the principles of study design and deductive logic for the purpose of carrying out quantitative data analysis. Pre-requisite: SOC 101, Minimum Sophomore standing.

**SOC 434. Statistical Analysis. (4).**

This class will begin with an introduction to descriptive analysis and inferential statistics but will primarily focus on hypotheses testing, probability models, t-tests, ANOVA, Chi-square, regression analysis and multiple regressions. Students will be expected to gain computer competency in Excel and SPSS as well as write an original empirical paper. Minimum Junior standing.

**SOC 440. Ethnographic Methods - Capstone. (4).**

Skill development prepares students to conduct qualitative sociological research. Emphasizes ethnographic techniques including: intensive interviewing, direct observation, coding, participant observation, and report writing. Students conceive and execute a field research project with data collection, analysis, and a report. Minimum Junior standing. Pre-requisite: SOC 101 or equivalent.

**SOC 482. Selected Topics. (1-4).****SOC 485. Seminar. (2-4).**

**SOC 490. Independent Study. (1-4).**

**SOC 492. Internship. (1-4).**  
(graded P/NC only).

## Theatre Arts

A degree in theatre arts prepares students for performances and technical production in live theatre, film, television and multimedia. California Lutheran University's Theatre Arts Department offers a series of fundamental and advanced courses in theatre along with numerous opportunities to participate in its Mainstage, Blackbox and Film and Video productions.

An average of four major live theatre productions, including musicals, are staged each year, along with performance opportunities in Improvisational Theater, original films and videos and the student-produced Blackbox series. Students are encouraged to take positions of responsibility in all areas of production including publicity, sound, light, makeup, scene and costume design.

Every theatre arts major has the opportunity to direct or design a play production on campus. CLU students have brought home top regional awards from the Kennedy Center/American College Theatre Festival. Students are encouraged to work as professional theatre interns during the summer with Camp Shakespeare and the Kingsmen Shakespeare Company, a professional theatre company performing on campus. Students also intern at local art centers like the Thousand Oaks Civic Arts Plaza. The University's close proximity to Los Angeles provides an arena for students to explore a variety of screen, stage, television and musical presentations and connections with industry professionals.

Many CLU theatre arts graduates have achieved careers in the competitive world of professional theatre, film, and television. The theatre arts curriculum also provides practical performance, management, communication, and work skills that relate to many other career fields. CLU theatre arts graduates have been accepted into graduate theatre programs at universities throughout the United States.

## Theatre Arts Scholarship

Visual and Performing Arts scholarships in Theatre Arts are available to those students who have a high school 3.0 grade point average and whose talent, interest, or experience indicates that they would contribute to our program. Awards are made to talented students whether they are theatre arts majors or non-theatre arts majors. Application for the scholarship and scheduling of an audition/interview should be completed prior to February 1. For further information, please contact the Chair of the Theatre Arts Department.

## Bachelor of Arts in Theatre Arts

42 credits minimum, 31 credits upper division.

### Performance Emphasis Requirements

TA 133	Acting I	4
TA 160	Production Lab: Costumes	1
or TA 161	Production Lab: Scenery	
TA 167	Design and Production for the Stage and Media	4
TA 325	History of the Theatrical Arts	4
TA 331	Advanced Scene Study	4
TA 333	Acting: Styles	4
TA 334	Stage Speech	2
TA 335	Movement for the Stage	2
TA 367	Light/Sound Design for Stage and Media	4
or TA 368	Scenic Design for Stage and Media	
or TA 369	Costume Design for Stage and Media	
TA 451	Creative Project/Portfolio	1
TA 475	Directing I	4
TA 477	20th Century Theatre-Capstone	4
Select one of the following:		4
TA 342	History of Drama	
TA 343	Modern Drama	
TA 452	Shakespeare	
Total Hours		42

## Technical Theatre Emphasis Requirements

TA 133	Acting I	4
TA 160	Production Lab: Costumes	1
or TA 161	Production Lab: Scenery	
TA 162	Production Lab: Sound/Lighting	1
TA 163	Production Lab: Makeup	1
TA 167	Design and Production for the Stage and Media	4
TA 325	History of the Theatrical Arts	4
TA 360	Advanced Production Lab (2 credits total - 1 credit each)	1
TA 360	Advanced Production Lab	1
TA 367	Light/Sound Design for Stage and Media	4
TA 368	Scenic Design for Stage and Media	4
TA 369	Costume Design for Stage and Media	4
TA 451	Creative Project/Portfolio	1
TA 475	Directing I	4
TA 477	20th Century Theatre-Capstone	4
Select one of the following:		4
TA 342	History of Drama	
TA 343	Modern Drama	
TA 452	Shakespeare	
Total Hours		42

## Theatre Arts Major (Performance Emphasis) with additional Interdisciplinary Emphasis in Musical Theatre Requirements

12 credits minimum.

MUS 142	Voice	2
or MUS 342	Voice	
MUS 142	Voice (two courses minimum)	2
or MUS 342	Voice	
MUS 107	Music Theory I	2
MUS 403	History of Musical Theater	2
TA 337	Dance for Music Theatre	2
TA 370	Acting for Music Theatre	2
Total Hours		12

## Requirements for a Minor in Theatre Arts

21 credits minimum, 12 credits upper division.

TA 131	Beginning Acting	4
or TA 133	Acting I	
TA 160	Production Lab: Costumes	1
or TA 161	Production Lab: Scenery	
TA 325	History of the Theatrical Arts	4
TA 475	Directing I	4
TA 477	20th Century Theatre-Capstone	4
One elective in theatre		4
Total Hours		21

# Courses

## Lower Division

### **TA 101. Introduction to the Theatre Arts. (4).**

A fundamental survey of the theatre arts that explores playwriting, criticism, direction, acting, and technical and design aspects from concept to production. The class emphasizes the ways gender and diversity issues have affected and continue to affect theatre.

### **TA 104. Voice Development for Broadcasting, Film And Communication Industries. (4).**

This course will enable students to develop voice acting skills, which can be applied to broadcasting, instructional film, animation, commercials and documentaries. The course will also provide an introduction to the history of the voice acting field and will provide information about professional opportunities. (cross-listed with COMM 104).

### **TA 112. Alexander Technique. (1-2).**

Introduces students to the principles of the Alexander Technique and the application of these principles in their major areas. The principles develop increased mind and body coordination and are most commonly applied to acting, singing, public speaking, musical instrument performance and athletic performance. (cross-listed with ACTV 112).

### **TA 120. Aerobic Dance. (1).**

### **TA 121. Folk and Square Dance. (1).**

### **TA 122. Modern Dance I. (1).**

### **TA 123. Modern Dance II. (1).**

### **TA 124. Polynesian Dance. (1).**

### **TA 125. Swing Dance. (1).**

### **TA 126. Ballroom Dance. (1).**

### **TA 127. Ballet. (1).**

### **TA 130. Tap Dance. (1).**

### **TA 131. Beginning Acting. (4).**

An introduction to the fundamental techniques of acting as a basis for developing oral and physical communication skills. Individual and group participation is emphasized.

### **TA 133. Acting I. (4).**

Emphasizes the study of external and internal approaches to characterization; students participate in the analysis and performance of monologues and scenes. For majors, minors or students with acting experience.

### **TA 152. Mainstage Productions. (1).**

Credit may be received for significant participation in a Mainstage Theatre production. 152 is intended for freshmen and sophomores. 352 is intended for juniors and seniors.

### **TA 160. Production Lab: Costumes. (1).**

An introduction to the tools and materials used in the production of costumes for the stage. Involves significant participation in the technical phase of stage production.

### **TA 161. Production Lab: Scenery. (1).**

An introduction to the tools and materials used in the production of scenery and props for the stage. Involves significant participation in the technical phase of stage production.

### **TA 162. Production Lab: Sound/Lighting. (1).**

An introduction to the tools and equipment used in the production of sound and lighting for the stage. Involves significant participation in the technical phase of stage production. Prerequisites: TA 160, TA 161, or TA 167.

**TA 163. Production Lab: Makeup. (1).**

Students explore the basic concepts and techniques of makeup used on stage and in media through lectures and practice and work on university productions.

**TA 167. Design and Production for the Stage and Media. (4).**

An introduction to the theories and practices of design and production for the stage and in the studio, including venue structures, design conceptualization and drawing, color theory, visual styles, basic CAD drafting, light theory and theatre safety.

**TA 232. The Oral Interpretation of Literature. (4).**

A study of literature from the point of view of the oral reader. The course is designed to aid students in their appreciation of prose, poetry, and drama.

**TA 282. Selected Topics. (1-4).**

## Upper Division

**TA 305. Playwriting. (4).**

This workshop course focuses on basic playwriting skills, with an emphasis on mastering plot, character, and dialogue development. Students will write and revise an original piece (cross-listed with ENGL 305).

**TA 312. Alexander Technique. (1-2).**

Introduces students to the principles of the Alexander Technique and the application of these principles in their major areas. The principles develop increased mind and body coordination and are most commonly applied to acting, singing, public speaking, musical instrument performance and athletic performance. (cross-listed with ACTV 312 and MUS 312).

**TA 325. History of the Theatrical Arts. (4).**

A survey of forms and styles of theatre production in all world cultures from primitive periods through the 19th century and modern Asia and Africa.

**TA 331. Advanced Scene Study. (4).**

Advanced study of acting approaches focusing on 19th and 20th century plays. Students will analyze characters and perform scenes from selected realistic plays. Prerequisite: TA 131 or TA 133.

**TA 332. Introduction to Improvisation. (1).**

An introduction to the principles of improvisation as applied to acting technique. Students will perform comedy and serious improvisation.

**TA 333. Acting: Styles. (4).**

Intensive work in acting styles from various theatrical periods, including Greek, Shakespeare, Restoration, 20th century, and Avant-Garde. Prerequisites: TA 131 or TA 133 or consent of instructor.

**TA 334. Stage Speech. (2).**

The class will focus on the principles of vocal production for the stage, including alignment, respiration, phonation, resonance, and articulation. In addition, students will become familiar with the International Phonetic Alphabet, and utilize it for dialect work. Prerequisite: TA 131 or TA 133.

**TA 335. Movement for the Stage. (2).**

The study of the theories, applications and practices of body awareness, direction and movement as applied by actors in a variety of theatrical styles. Prerequisite: TA 131 or TA 133.

**TA 337. Dance for Music Theatre. (2).**

This course provides students the opportunity to learn and perform dance styles most common to musical theatre. Tap, jazz, character and basic partnering will be choreographed into three or four dances that will be performed at the end of the course. Course will also cover the history of dance in musical theatre in America. Prerequisite: Previous dance experience. (cross-listed with MUS 337).

**TA 342. History of Drama. (4).**

A survey of dramatic literature from the beginnings of Greek tragedy to the rise of realism in the 19th century. Among the periods represented are Classical Greek, the Spanish Golden Age, the English Renaissance, 17th-century France and the Romantic Period. (cross-listed with ENGL 342).

**TA 343. Modern Drama. (4).**

A survey of dramatic literature from the rise of realism in the 19th century to the triumph and decline of modernism. Among the playwrights represented are Ibsen, Strindberg, Chekhov, Shaw, Pirandello, and Brecht. (cross-listed with ENGL 343).

**TA 352. Mainstage Productions. (1).**

Credit may be received for significant participation in a Mainstage Theatre production. 152 is intended for freshmen and sophomores. 352 is intended for juniors and seniors.

**TA 360. Advanced Production Lab. (1).**

Involves significant participation in the supervision and execution of scenery, costumes, props, sound, lights, or publicity in a University production. Prerequisite: TA 160, TA 161, TA 162 or TA 163.

**TA 365. Makeup Design I for Stage and Media. (2).**

Students explore the concepts of corrective makeup design through lecture and practice.

**TA 366. Makeup Design II for Stage and Media. (2).**

Students explore the concepts of character and special effects makeup design through lecture and practice.

**TA 367. Light/Sound Design for Stage and Media. (4).**

The study of lighting and sound as art forms with an emphasis on design concepts. Practical explorations of theories of light, color, and sound; the technology of production and control as applied to designing for the stage and media. Prerequisite: TA 167 or consent of instructor.

**TA 368. Scenic Design for Stage and Media. (4).**

Presents problems in scenic design, painting, perspective, and execution of models and working drawings. Prerequisite: TA 167 or consent of instructor.

**TA 369. Costume Design for Stage and Media. (4).**

A practical study of costumes for the stage. The course examines the history of clothing design, color theory, rendering techniques and design process from concept to execution. Students also explore the concepts of theatrical makeup and design through lecture and practice. Prerequisite: TA 167 or consent of instructor. (cross-listed with ART 369).

**TA 370. Acting for Music Theatre. (2).**

Musical Theatre Workshop is designed to develop a technique for musical solo and audition performances. The course will include song analysis, an acting approach to song and choice of material and technique. (cross-listed with MUS 370).

**TA 403. History of Musical Theater. (2).**

**TA 420. Perspectives on Theatrical Performance. (3).**

Analyzes the elements of the well-made play through readings, lectures, discussion and attendance of at least one production. Students examine the collaborative process of theatre.

**TA 431. Advanced Improvisation Techniques. (1).**

The course is an advanced course in techniques and theories of improvisation. Students will hone improvisational skills in games and exercises and prepare for monthly performances. Audition/Permission of instructor required.

**TA 432. Acting Shakespeare. (1).**

This course is an advanced study of Shakespeare for actors. Students will develop an understanding of preparing Shakespearean characters and text for audition and performance. Prerequisite: TA 133 or permission of instructor.

**TA 433. Acting for the Camera. (4).**

Acting for the Camera provides students with techniques applicable to film and television performance. Students will apply skills to hands-on experience in front of the camera. Topics will include audition techniques, subtleties between film, television and commercial performance, and methods for transitioning from stage to camera. Prerequisite: TA 131 or TA 133.

**TA 440. Creative Dramatics for Children and Youth. (3).**

Surveys the techniques and resources for children to express themselves through informal dramatics within the classroom or recreational situation. Prerequisite: consent of instructor. (cross-listed with EDUC 440).

**TA 451. Creative Project/Portfolio. (1).**

A faculty supervised and reviewed demonstration of significant theatrical creative work in portfolio, production or showcase format. Senior Theatre Arts majors only.

**TA 452. Shakespeare. (4).**

A study of selected plays and the sonnets of Shakespeare, with attention to theatrical, cultural and literary background. (cross-listed with ENGL 452).

**TA 475. Directing I. (4).**

The study of stage direction theory, play analysis, directorial practices and interpretation. Emphasis is placed on preparation and direction of scenes for class performance.

**TA 477. 20th Century Theatre-Capstone. (4).**

Further intense study of directing and dramaturgy for the stage covering 20th century drama. Included is the preparation and direction of a scene for class presentation.

**TA 482. Selected Topics. (1-4).****TA 490. Independent Study. (1-4).****TA 492. Internship. (1-4).**

(graded P/NC only).

## Theology and Christian Leadership

In addition to the traditional religion major, the Religion Department is now offering a second major, Theology and Christian Leadership. Designed for students who want training in specific areas of lay ministry, the major includes current religion courses as well as courses in other departments and new religion courses to be developed appropriate to the major. Students will select one of four areas for specialization:

1. Christian Education
2. Church Administration
3. Worship and Music
4. Youth and Family ministry.

## Bachelor of Arts in Theology and Christian Leadership

46 credits minimum.

REL 100	Introduction to Christianity	4
REL 370	Global Religions	4
REL 435	Faith and Reason-Capstone	4
REL 492	Internship	2
Select one of the following:		4
REL 310	Exploring the Old Testament	
REL 311	The Old Testament: Torah	
REL 312	Old Testament Prophets	
REL 313	Old Testament: Writings	
Select one of the following:		4
REL 320	Exploring the New Testament	
REL 321	Matthew, Mark and Luke	
REL 322	Gospel of John	
REL 323	Paul and His Letters	
REL 327	Revelation and Apocalypse	
Select one of the following:		4
REL 331	Christianity in the Roman World	
REL 332	Medieval and Reformation Christianity	
REL 333	World Christianity Since 1600	
REL 334	Christianity in America	
REL 335	Martin Luther	
REL 340	Exploring Christian Theology	
REL 341	Varieties of Christian Theology	
REL 344	God in Christian Thought	
REL 345	Christ and Salvation	

REL 346	Science and Christian Theology	
REL 347	Liberation and Theology	
Select one of the following:		4
REL 350	Contemporary Christian Ethics	
REL 351	Global Ethics	
REL 352	Environmental Ethics	
REL 353	Violence, Religion and Ethics	
REL 354	Theology and Business Ethics	
REL 356	Sexual Ethics	
Emphasis		16
Total Hours		46

## Christian Education Emphasis

Take four courses from the following:		16
BUS 370	Multimedia Technology	
or COMM 348	Website Design and Publishing	
PSYC 304	Child and Adolescent Development	
or PSYC 305	Adult Development and Aging	
COMM 335	Interpersonal Communication	
or PSYC 325	Theories of Personality	
or SOC 300	Sexuality and Society	
SOC 320	Religion and Culture	
CRIM 340	Violence & Victimization	
or CRIM 350	Juvenile Delinquency	
Total Hours		16

## Church Administration Emphasis

Take four courses from the following:		16
BUS 251	Principles of Accounting	
or BUS 253	Financial Information in Business Organization	
BUS 301	Communication for Managers	
or COMM 306	Business and Professional Communication	
BUS 342	Marketing Research/Consumer Behavior	
or BUS 375	Principles of Marketing	
or BUS 445	Marketing and Management of Services	
BUS 381	Information, Systems, and Organizational Design	
or COMM 348	Website Design and Publishing	
BUS 361	Human Resource Management	
or BUS 367	Behavior in Organizations	
or BUS 449	Managerial Leadership: Core Competencies And Skills	
or COMM 335	Interpersonal Communication	
BUS 501	Introduction to Financial Planning	
Total Hours		16

## Worship and Music Emphasis

MUS 107	Music Theory I	2
MUS 108	Music Theory II	2
MUS 109	Musicianship Skills I	1
MUS 110	Musicianship Skills II	1
MUS 111	Keyboard Harmony I	1
MUS 112	Keyboard Harmony II	1
MUS 309	Fundamentals of Conducting	3
REL 392	Liturgy and Worship	4

Select two of the following:		2
MUS 113	Class Voice	
MUS 114	Class Piano	
MUS 116	Class Guitar	
MUS 140	Piano	
MUS 141	Organ	
MUS 142	Voice	
MUS 143E	Strings: Guitar	
MUS 340	Piano	
MUS 341	Organ	
MUS 342	Voice	
MUS 343E	Strings: Guitar	
Select two of the following:		2
MUS 150	Women's Chorale	
MUS 180	California Lutheran Choir	
MUS 350	Women's Chorale	
MUS 380	California Lutheran Choir	
Total Hours		19

## Youth and Family Ministry

Take four courses from the following:		16
CRIM 340	Violence & Victimization	
TA 440	Creative Dramatics for Children and Youth	
BUS 370	Multimedia Technology	
or COMM 348	Website Design and Publishing	
COMM 335	Interpersonal Communication	
or PSYC 325	Theories of Personality	
PSYC 304	Child and Adolescent Development	
or PSYC 305	Adult Development and Aging	
SOC 300	Sexuality and Society	
or SOC 320	Religion and Culture	
or SOC 370	Deviance in U.S. Society	
Total Hours		16

## Courses

### Lower Division

#### REL 100. Introduction to Christianity. (4).

This study of Christianity explores the formation and structure of the Hebrew Bible/Old Testament and New Testament and the development of Christianity from the first century to the present, including its theological and ethical traditions.

#### REL 282. Selected Topics. (1-4).

#### REL 285. Interim Travel Course. (1).

### Upper Division

#### REL 300. Exploring Biblical Traditions. (4).

This course will trace the development of religious consciousness in human experience, examine the foundations of Judaism and Christianity in the Hebrew and Christian scriptures, explore the rise and expansion of Christianity in its unity and diversity, and explain its core beliefs and practices.

#### REL 310. Exploring the Old Testament. (4).

This introduction to the literature and setting of the Old Testament/Hebrew Bible emphasizes selected writings and themes. Attention is given to the historical and cultural context and the challenge of interpreting these writings in the 21st century.

**REL 311. The Old Testament: Torah. (4).**

An examination of the first five books of the Old Testament/Hebrew Bible, focusing on selected passages and themes, the historical and cultural context of their composition and the challenge of interpreting them in the 21st century.

**REL 312. Old Testament Prophets. (4).**

An examination of the prophetic books of the Old Testament/Hebrew Bible, focusing on selected passages and themes, the historical and cultural context of their composition and the challenge of interpreting them in the 21st century.

**REL 313. Old Testament: Writings. (4).**

An examination of Wisdom Literature, Psalms and other writings in the Old Testament/Hebrew Bible, focusing on selected passages and themes, the historical and cultural context of their composition and the challenge of interpreting them in the 21st century.

**REL 315. Biblical Hebrew I. (4).**

A two-semester sequence of study leading to a reading knowledge of the Hebrew Bible/Old Testament. Basic Hebrew grammar and vocabulary are studied in conjunction with questions of cosmology, the understanding of history and the theological perspective of ancient Israel. (cross-listed with HEBR 315 & HEBR 316).

**REL 316. Biblical Hebrew II. (4).**

A two-semester sequence of study leading to a reading knowledge of the Hebrew Bible/Old Testament. Basic Hebrew grammar and vocabulary are studied in conjunction with questions of cosmology, the understanding of history and the theological perspective of ancient Israel. (cross-listed with HEBR 315 & HEBR 316).

**REL 320. Exploring the New Testament. (4).**

A survey of the New Testament writings in their first century Mediterranean cultural setting that explores how early Christian communities adapted Jewish Tradition and society, as well as the ideas, cultures, and beliefs of ancient Greece and Rome.

**REL 321. Matthew, Mark and Luke. (4).**

A study of the Synoptic Gospels designed to help students grasp the interrelationships, structures, issues and implications these books present; and gain an appreciation of the richness and variety of the religious, literary and political world in which they emerged.

**REL 322. Gospel of John. (4).**

A study of the Fourth Gospel, particularly the symbols John uses to describe Jesus (shepherd, living water, bread of life, vine) and his followers (sheep, thirsty, hungry, the branches). How do these symbols affect people's behavior in Jesus' time and today and do these symbols have political power?.

**REL 323. Paul and His Letters. (4).**

An introduction to the study of Paul's letters and theology in relation to his social world, using historical and literary approaches.

**REL 324. Jesus. (4).**

Who is Jesus? This course begins with the four gospels and asks how each writer understands Jesus in the first century Jewish and Roman worlds. Students then study art and literature from around the world to ask how Jesus is understood in different cultural and political perspectives today.

**REL 325. Biblical Greek I. (4).**

A beginning study of biblical Greek that builds a foundation in the essentials of grammar, vocabulary, and translation. Includes readings in Mark and Philippians, as well as (in the second semester) discussion of theological implications.(Cross-listed with GREE 325 & GREE 326).

**REL 326. Biblical Greek II. (4).**

A beginning study of biblical Greek that builds a foundation in the essentials of grammar, vocabulary, and translation. Includes readings in Mark and Philippians, as well as (in the second semester) discussion of theological implications.(Cross-listed with GREE 325 & GREE 326).

**REL 327. Revelation and Apocalypse. (4).**

An introduction to the book of Revelation in the New Testament, and other apocalyptic themes in literature from the Prophets to the present times. This course explores the social and political dimensions of apocalyptic literature in particular situations around the globe.

**REL 331. Christianity in the Roman World. (4).**

A survey of the emergence, growth, and development of the Christian movement from the time of the apostles to the disintegration of the Roman Empire in the West and to the fall of Constantinople in the East. This course will focus on Christianity as actually experienced and practiced by its earlier adherents in the multinational context of empire, and will look at textual, artistic, and material sources of evidence to gain a sense of the Christian past. (cross-listed with HIST 331).

**REL 332. Medieval and Reformation Christianity. (4).**

A survey of the development of Christianity in the post-Roman West, focusing on the rise of papacy, the development of distinctive Western Christian practices and doctrines, and the important role of the church in shaping European society. Special attention will be given to ways the medieval church handled difference and dissent, and to the reform movements of the later Middle Ages and the Protestant and Catholic reformations they brought about. (cross-listed with HIST 332).

**REL 333. World Christianity Since 1600. (4).**

A survey of the history of post-Reformation Christianity as it spread beyond Europe and became truly a global religion, with special emphasis on regional variations, issues of class and gender, and the challenges of modernity. Much of the course will focus on Christianity as variously experienced in the tumultuous 20th century, and in this will underscore both continuities and the rich diversity in the modern and postmodern Christian communities that exist throughout the world today. (cross-listed with HIST 333).

**REL 334. Christianity in America. (4).**

This course will trace the historical development of Christianity in America from its early encounter with Native American religions to its contemporary encounter with other global religions. Beginning with Spanish, French and English colonial empires, emphasis will be placed on the arrival of diverse religious refugees, the rise of uniquely American religious groups and the relation of Christianity to various socio-political movements and to the diversity of persons and cultures represented in American public life today. (cross-listed with HIST 335).

**REL 335. Martin Luther. (4).**

A seminar course introducing the life and thought of Martin Luther (1483-1586), based on lectures, films, and close reading and discussion of his works. The course aims to provide students with a working knowledge of Luther's main teachings and their impact, and to put both his ideas and his legacy in historical context.

**REL 340. Exploring Christian Theology. (4).**

A survey of the fundamental doctrines of Christianity, including their biblical roots, classical formulations, challenges posed by the modern world and some contemporary reformulations.

**REL 341. Varieties of Christian Theology. (4).**

A study of some contemporary currents in Christian theology, such as evangelical theology, the various liberation theologies (feminist, black, Latino, Latin American), and the recent scientific theologies.

**REL 344. God in Christian Thought. (4).**

An examination of traditional and contemporary Christian understandings of God, including the person and attributes of God, God's creative work, the divine-human relationship, sin, and the traditional problem of evil.

**REL 345. Christ and Salvation. (4).**

A study of traditional and contemporary understandings of the historical person of Jesus, his identity as the Messiah/Christ, and his role in God's saving work.

**REL 346. Science and Christian Theology. (4).**

An examination of the historical and contemporary relationships that have existed between modern science and Christian theology through study of particular areas of convergence, examples of conflict and integration, and the scientific, philosophical and theological issues involved.

**REL 347. Liberation and Theology. (4).**

An introduction to theologies of liberation in Latin America and in Ventura County, this course asks how social, economic, and political readings of the Bible can be used to dominate and liberate communities.

**REL 350. Contemporary Christian Ethics. (4).**

An introduction to contemporary Christian ethics; its relationship to the Bible and Christian communities; and thinking on such important personal and social issues as sexual behavior, human reproduction, racial and ethnic relations, the taking of human life, poverty and economic issues, and the environment.

**REL 351. Global Ethics. (4).**

A variety of issues have arisen which need to be examined from global perspective: political repression, social change, terrorism and war, economic globalization, immigration, human rights, health, and the environment. This course examines these issues from the perspectives of global religions, ethics, social theory, and social movements.

**REL 352. Environmental Ethics. (4).**

The care of the earth demands that we address complex issues such as patterns of consumption and production, population growth, the rights of animals, plants and land as well as the rights and responsibilities of persons, businesses, and nations. The course examines historical, political, socio-economic, philosophical and religious perspectives.

**REL 353. Violence, Religion and Ethics. (4).**

A study of various forms of violence, such as sexual and domestic violence, political repression, terrorism and war. The course examines religious justification of and resistance to violence, using cases from diverse locations and religions.

**REL 354. Theology and Business Ethics. (4).**

This course applies ethical theory to business decisions within the context of theological reflection. With a strategic focus, the course will investigate the relationship between theological ethics and the economic concerns of managers. The course is particularly designed to help students become effective ethical agents by developing the skills to apply ethical principle to strategic business decisions. (cross-listed with BUS 354).

**REL 356. Sexual Ethics. (4).**

A study of sexual ethics from religious and philosophical perspectives, moving from an examination of understandings of gender, sexuality, and sexual identities to discussion of issues such as marriage and family; contraception, abortion and reproductive technologies; sexual violence, and HIV/AIDS.

**REL 357. Malcolm X and M.L. King. (4).**

A study of the religious ethics of Martin Luther King Jr. and El Hajj Malik Al Shabazz (Malcolm X) through their own speeches and writings and the works of various interpreters. We examine relevant aspects of African-American history and culture, including the role of women in the civil rights movement.

**REL 360. Jews and Judaism. (4).**

A study of the elements of traditional Judaism in biblical, rabbinic and modern times.

**REL 370. Global Religions. (4).**

A consideration of themes, issues, types of figures and phenomena from the religions of the world, selected to illustrate the ways in which the religious traditions are shaped by and in turn effect processes of globalization that inform the human experience historically and in the present.

**REL 371. Western Religions. (4).**

Drawing on the religious traditions of Judaism, Christianity and Islam, students will examine the varieties of the religious experience, historically and comparatively represented by adherents of these three religious communities.

**REL 372. South Asian Religions. (4).**

Drawing on the religious traditions of South Asia (modern India, Pakistan, Bangladesh, and Sri Lanka, students will consider the varieties of the religious experience, historically and comparatively represented by the adherents of these religious communities.

**REL 374. Women and Religion. (4).**

A consideration of women and women's issues within the context of the study of world religious traditions.

**REL 375. Islam. (4).**

In this introductory course, students learn the history of Islam from the Prophet Mohammed and the roots of the religion in Arab culture, to the spread of Islam as a global religion across many cultures. Students will analyze the variety of social, political, and cultural ways in which Muslims live out their faith around the world and in the U.S. Global Emphases may change year to year but will include 3-5 different geographical areas such as: Egypt, Asia, Turkey, Africa, Spain, Indonesia, and Europe.

**REL 380. Jesus in Film and History. (4).**

A study of the historical person of Jesus through readings in the gospels, historical Jesus research from the past two centuries, and the various cinematic portraits of Jesus from the silent picture era to the present.

**REL 381. Religion, Identity, and Culture. (4).**

This course explores the interaction of religion and culture in the United States. We will examine uses of religious symbols and narratives in the formation of personal, gender, ethnic and cultural identities, through analysis of memoirs and novels.

**REL 390. Exploring Church Vocations. (4).**

This course is designed for students interested in exploring the possibility of lay or ordained ministry in the church on either a professional or voluntary basis. Its primary focus is on the theory and practice of youth and family ministry, and the theology and art of oral communication in religious settings.

**REL 392. Liturgy and Worship. (4).**

An introduction to the Christian liturgical tradition, particularly that of Western Christianity. It will include some comparison with non-Christian religious customs, and will give importance to the development of worship in the Protestant traditions. The course's approach is historical, but it may also include some practical training if appropriate to student needs. Christian hymnody and liturgical music will also be introduced, with an emphasis on the distinctive Lutheran contributions in those areas. (cross-listed with MUS 392).

**REL 412. Christian Art in the Middle Ages. (4).**

Students survey the religious art of the Middle Ages - primarily Christian, but also some early Jewish and Islamic developments - identifying significant works of architecture, sculpture, and painting, while exploring Christian concepts and beliefs, liturgy and worship. Students consider art in relation to cultural needs, examining works in historical, religious social, economic, and political contexts. Students become familiar with visual forms, styles, narratives, and symbols of Christian art, as well as with broader, unifying themes shared by different cultures. The course content covers twelve centuries and geographically spans the Western edges of Europe to the Middle East. We also pay attention to instances of cultural exchange (the circulation of ideas, art forms, and artists through Europe and the Middle East). (cross-listed with ART 412).

**REL 435. Faith and Reason-Capstone. (4).**

Team-taught by professors in philosophy and religion, the course is an interdisciplinary exploration of the perennial tensions and cross-fertilizations between faith and reason, including examination of arguments for and against God’s existence, the problem of evil, the nature of religious language, and the relationship between science and religion. It serves as the capstone for philosophy and religion majors and a senior seminar in the honors program. It is also open to juniors and seniors from all disciplines. (cross-listed with PHIL 435 and HNRS 435) (Spring).

**REL 482. Selected Topics. (4).**

**REL 485. Travel Seminar. (2-4).**

**REL 490. Independent Study. (1-4).**

**REL 492. Internship. (1-4).**  
(graded P/NC only).

## Women's Studies (minor)

The minor in Women’s Studies focuses on gender as a primary category of human experience. The universality of this experience, combined with the uniqueness of its expression in every individual, makes gender an ideal site for the rigorous inquiry and respectful dialogue that characterize a well-rounded liberal arts education.

At CLU, Women’s studies is an interdisciplinary curriculum that examines the role of gender in history, the workplace and other social institutions. The program encompasses disciplines in the humanities and social sciences.

### Minor in Women’s Studies <sup>1</sup>

WOMS/SOC 210	Introduction to Women’s Studies	4
Select three of the following:		12
COMM 315	Small Group Communication	
CRIM 430	Race, Ethnicity, Gender, and Crime	
ENGL 352	Gender and Literature: Global Perspectives	
HIST 341	United States Women’s History	
HIST 343	Women in Global History	
PSYC 215	Perspectives on Women and Men	
REL 356	Sexual Ethics	
REL 374	Women and Religion	
SOC 300	Sexuality and Society	
SOC 322	Gender and Society	
SOC 340	Family and Intimate Relationships	
POLS 418	Women and Politics	
Total Hours		16

<sup>1</sup> 15 credits minimum.

## Courses

### Lower Division

#### **WOMS 210. Introduction to Women's Studies. (4).**

This interdisciplinary course explores some major issues such as cultural definitions of womanhood; women's roles in and perspectives on education, religion, politics, law, economics and health care; women and the arts; and feminist philosophy. (cross-listed with SOC 210).

### Upper Division

#### **WOMS 482. Selected Topics. (1-4).**

This interdisciplinary course will pursue scholarship in women's studies at an advanced level, with an emphasis on various feminist theoretical perspectives. Topics will include feminist methodologies; gender as a category of analysis; theories of difference, gender, race, class and sexuality; feminist ethical and political theory; and policy perspectives on women's issues. Prerequisites: either WOMS 210 / SOC 210 or HIST 341.

#### **WOMS 490. Independent Study. (1-4).**

#### **WOMS 492/492. Internship. (2-4,2-4).**

(graded P/NC only).

# Adult Degree Evening Program

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The Adult Degree Evening Program (ADEP) is an expression of California Lutheran University's commitment to life-long learning. ADEP offers the same high quality educational program that is found in the traditional daytime program, but is tailored to meet the special needs of working adult students. The program's creative learning environment, liberal arts and professional curriculum, and exceptional faculty offer a unique opportunity for the adult learner who is seeking personal and professional advancement and development.

## Admission

### Who May Apply?

The Adult Degree Evening Program has set minimum requirements to ensure that the adult orientation of the program is maintained. You may apply if you:

1. have graduated from high school or possess a G.E.D. certificate
2. have completed 12 transferable semester hours of college credit
3. have a cumulative grade point average of at least 2.25
4. are at least 25 years of age (exceptions may be made for students with exceptional work experience and a letter of recommendation)
5. have substantial work experience

### How to Apply

1. Schedule an appointment with an admission counselor for a preliminary transcript evaluation and academic advisement;
2. Complete an application for admission and return it with an application fee to the Graduate and Adult Programs Office;
3. Have official transcripts from all previously attended colleges sent to the Graduate and Adult Programs Office.

At the time of your admission interview or shortly thereafter, you will be notified of the admission decision. If admitted, you will be sent information about registration procedures. Upon your acceptance, transfer credits from other colleges will be evaluated by the registrar's office and the results mailed to you before the end of your first term.

### Provisional Admission

If you are unable to obtain an *official transcript* prior to the beginning of classes, you *may* be provisionally admitted for one term by submitting an unofficial transcript. You must also complete the admission procedures outlined above *prior to registration*. The official transcripts must be submitted prior to registering for a second term. Official transcripts must be submitted and you must be fully admitted to the program before financial aid may be awarded.

### Readmission of Former ADEP Students

If you were formerly enrolled as an ADEP student but have not attended four or more consecutive terms, you must apply for readmission by submitting an updated application form and meeting with an admission counselor. The curriculum requirements in effect at the time of your readmission will apply.

### Academic Policies (p. 39)

#### Alternatives for Acquiring Credit

- College Level Examination Program (CLEP) (see Admission (p. 7))
- Credit by Examination (see Academic Programs (p. 31))
- Independent Study (see Academic Programs (p. 31))

### Course Load

Since most ADEP students are also employed, a normal course load is considered to be two courses per term (six to eight units). The number of units you take, however, is up to you as long as you don't exceed 10 units per term. For financial aid and veteran's benefits, half-time is considered to be four units and full-time is eight units.

### Concurrent Enrollment

If you are admitted as an ADEP student and wish to enroll in courses within the traditional CLU program or in another college or university, you must obtain approval from the Director of the Adult Degree Evening Program, the Registrar of the University, and the Director of Financial Aid prior to enrolling in the course(s). Normally, requests for concurrent enrollment at another institution will not be granted unless you demonstrate a compelling need to take the course at that location.

## Financial Information

### Tuition and Fees

Refer to [www.callutheran.edu/student\\_accounts/tuition/adept.php](http://www.callutheran.edu/student_accounts/tuition/adept.php) for current tuition and fees.

Tuition is due and payable on or before the first class meeting unless you have made alternative payment arrangements. Late payment fees are assessed on delinquent accounts. Students with delinquent accounts cannot register for the new term until fees for the prior term have been paid. All financial obligations must be met before academic records (diplomas, grade reports and transcripts) will be released. You may contact the Business Office or refer to WebAdvisor for information regarding your student account status.

### Student Status

Student enrollment status definition for ADEP:

- **Full-time** = eight units or more
- **Three-quarter time** = six to seven units
- **Half-time** = four to five units

ADEP students must be at least half-time (four units) to be eligible for federal loans. Limited financial aid may be available for less than half-time status.

## Financial Assistance

An adviser is available to help you apply for financial need and discuss various forms of financial assistance.

### Employer Tuition Assistance Programs

Many companies offer full or partial tuition assistance to employees who participate in work-related or degree-oriented college programs. California Lutheran University provides a deferred payment option for students who take advantage of their company's tuition reimbursement opportunities. Program details are available in the ADEP Office.

### ADEP Assistantships

ADEP assistantships provide free tuition in exchange for work in the ADEP department. Normally, no more than four free tuition credits will be granted during any one term. A minimum cumulative 2.5 GPA is required for eligibility and a student must be enrolled in courses during the term of the assistantship. Typically, the student would need to be available during daytime hours to be eligible for an assistantship. The ADEP Assistantship application is available under the "Forms" section of the Office of Financial Aid's website.

### ADEP Academic Scholarships

Six nonrenewable academic scholarships for up to \$2,000 may be awarded each year to new degree-candidate students in the Adult Degree Evening Program who have demonstrated outstanding academic achievement. Individuals interested in competing for ADEP scholarships must submit a two-page essay and have a minimum transfer GPA of 3.0 with at least 30 transfer credits. This competition is for first-time ADEP students only. Scholarship applications are available in the ADEP Office and on the financial aid website under grants and scholarships.

### ADEP Grant

Students registered for at least eight units per term and who demonstrate financial need may qualify for an ADEP Grant. Students must file a FAFSA (Free Application for Federal Student Aid) and an ADEP Financial Aid Application (found within the Office of Financial Aid's website under "Forms") to be considered. *Grants are awarded on a first-come first-served basis and there are a limited number available.*

### Cal Grant

A California Grant based on need and GPA is available to eligible ADEP students. A Free Application for Federal Student Aid (FAFSA) must be filed and a Cal Grant GPA Verification Form ([www.csac.ca.gov](http://www.csac.ca.gov)) must be submitted to the California Student Aid Commission by March 2.

### Federal Pell Grant Program

Under this federal grant program, award amounts are based on exceptional financial need. A Free Application for Federal Student Aid (FAFSA) must be filed for consideration.

### Congregational Partners in Education (CPE) Award

This renewable award allows congregations to assist outstanding students who have demonstrated a commitment to the life and work of their church. CLU will match gifts from the congregation in support of a full-time student (eight units per term) up to a maximum of \$1,000. Contact the Office of Financial Aid for more information.

## Federal Stafford Loan

Eligibility for a Federal Stafford Loan is determined by the FAFSA. The Federal Stafford loan program is divided into two types of loans – subsidized and unsubsidized. Both have fixed rates (please contact the Financial Aid Office for the most current interest rate information) and are available to students who are fully admitted to an eligible program of study and are enrolled at least half time per term.

The U. S. Department of Education pays the accrued interest on the need-based Subsidized Stafford loan only. The Unsubsidized Stafford loan accrues interest while the student is in school; a student can choose to pay or defer the interest until the repayment period begins.

An eligible, independent student may borrow up to the annual maximum of \$9,500 for freshmen, \$10,500 for sophomores and \$12,500 for juniors and seniors. The loan may be awarded as subsidized, unsubsidized or a combination of both.

Students must be enrolled at least half time per term (four or more units) to receive a Federal Stafford loan. A separate electronic application process is required in addition to accepting the loans in the Financial Aid Award, which is available online at [www.callutheran.edu/financialaid](http://www.callutheran.edu/financialaid) in the Loans & Counseling section.

## Alternative Loans

Private educational loans are also an option. The Financial Aid Office has information available online at [www.callutheran.edu/financialaid](http://www.callutheran.edu/financialaid) regarding alternative loan options. The interest rates for alternative loans are variable. Eligibility and availability are determined by the lender.

## Veteran's Benefits

Students who may be eligible for veteran's benefits should contact the Veterans Affairs office and the Registrar's Office at CLU for specific information. Students must submit a copy of their VA Certificate of Eligibility and complete a Veteran's School Form with the Registrar's Office.

## How to Apply for Financial Aid:

1. Complete the following forms:
  - A. FAFSA (Free Application for Federal Student Aid) available online at [www.fafsa.gov](http://www.fafsa.gov) (<http://catalog.callutheran.edu/undergraduate/adultdegreeeveningprogramadep/http://www.fafsa.gov>)
  - B. ADEP Application for Student Financial Aid online at [www.callutheran.edu/financial\\_aid/forms/](http://www.callutheran.edu/financial_aid/forms/)
2. Turn in all completed financial aid forms and necessary supporting documentation to the Financial Aid Office by the deadlines indicated.
3. Accept the financial aid offered, in whole or part, by the reply date indicated on your award letter.
4. If borrowing loans, you will be required to complete the loan application (Master Promissory Note) and Entrance Counseling process if needed.

**You must be officially admitted to the University and registered for classes to receive financial aid.**

## Return of Funds Policies for Federal Aid

Students who receive federal aid<sup>1</sup> are subject to federal return of funds policies. If the payment period for which a student received funds (term) is not completed and the student withdraws from all courses, then the student is only eligible for a percentage of the aid equal to the percentage of the period completed. The following is an example of this concept:

*Krista enrolls in the fall term but drops out before the end of the term. She actually completes 35 percent of the term and, therefore, is only eligible for 35 percent of the aid awarded for that period (amount earned).*

If the aid earned is more than the amount that was actually disbursed to the student (credited to their account), then California Lutheran University will offer the student a post withdrawal disbursement according to certain conditions such as whether or not a valid Student Aid Report has been received, the status of the verification process, etc.

If the amount disbursed is more than the amount earned, then California Lutheran University must return the amount unearned to the U.S. Department of Education. The student will then be responsible for any balance owed to California Lutheran University caused by the return of funds.

For additional information, please contact the Office of Financial Aid at (805)493-3115.

- 1 Federal aid covered by the Return of Funds policies includes the Unsubsidized Stafford Loan, Subsidized Stafford Loan, and Pell Grant.

## Degree Requirements

### General Degree Requirements

The requirements for the degrees of Bachelor of Arts and Bachelor of Science are designed to provide you with a broad program of liberal arts study and an opportunity to concentrate in the field of special interest. It is intended that at the undergraduate level the emphasis be placed on acquiring a broad education in many subjects, leaving highly specialized and professional studies to the graduate school level.

ADEP advisors will assist you in preparing an individualized degree plan; nevertheless, you are ultimately responsible for seeing that your academic program includes all requirements for graduation.

1. Students must complete 124 semester credits. At least 40 of these must be upper division, that is, junior or senior level courses (courses numbered 300-499).
2. 30 of the final 40 credits must be completed in residence. This requirement cannot be met using credit by examination, CLEP or community college.
3. Students must earn at least a 2.0 grade point average for all CLU work and also achieve a 2.0 on all combined CLU and other college work.

### General Education Requirements

You may have transferred some or all of the required general education courses from previous course work. However, if you still need any of the courses, you will find them as part of the Adult Degree Evening Program curriculum. General education includes:

#### 1. Proficiencies

##### A. **Written Communication:**

- i ENGL 111 – Freshman English with a grade of C or better
- ii One upper division writing intensive course

##### B. **One speaking intensive course**

##### C. **Mathematical Reasoning:**

One course (beyond intermediate algebra) or satisfactory score on the designated exam. Depending on the student's score on the math placement test, the student may be required to take MATH 110 Intermediate Algebra as a prerequisite for higher level courses.

#### 2. Perspectives

##### A. **Humanities:**

One religion course and three additional courses selected from religion, literature, philosophy, history or humanities.

##### B. **Social Sciences:**

Two courses in different disciplines selected from specifically approved cultural anthropology, criminal justice, economics, cultural geography, political science, psychology, and sociology courses.

##### C. **Natural Sciences:**

One course with a lab component: physical anthropology, astronomy, biology, chemistry, physical geography, geology, physics. Senior transfers (90 or more credits) who have completed two science courses without laboratory components will have met the natural sciences requirement.

##### D. **Visual and Performing Arts:**

One course, at least two credits.

#### 3. Cultures and Civilizations \*

- A. **U.S. Diversity** – one course

#### 4. Integrated Studies \*

- A. **Integrated Studies Capstone** – one course (This course is part of the requirements for your major and may also be used to complete a perspectives requirement.)

\* The courses marked with an asterisk are not additional credit or course requirements. They are content requirements which may be met through a selection of courses which also meet major, elective, or other core requirements.

## Pass/No Credit

No general education requirements or any portion of the major (including supporting courses) may be satisfied by courses graded P/NC, except for specifically designated courses.

NOTE: Students transferring from California community colleges who, prior to transfer to CLU, have fully satisfied the Intersegmental General Education Transfer Curriculum (IGETC) need only complete the religion and oral communication requirements to meet the ADEP general education requirements. Students who do not complete the IGETC will follow the CLU general education requirements as stated above.

## Major Requirements

All students must complete an academic major as part of the requirements for the baccalaureate degree. Requirements for an academic major are as follows:

1. Completion of at least 32 credits in an area of concentration for the Bachelor of Arts or at least 36 credits for the Bachelor of Science.
2. Three upper division courses for the major, including the capstone, must be completed in residence at CLU.
3. A minimum grade point average of 2.0 is required in the major. Required support courses are not included in the major GPA.
4. At least 75 percent of the required courses for a major must be unduplicated with any other major or minor.

## Minor Requirements

Minors consist of a coherent set of related courses in a particular disciplinary or interdisciplinary area. An academic minor is not required for a degree; however, if a student elects to earn a minor, he or she

1. must complete the specified 15-20 credits within the minor desired;
2. may not major and minor in the same department;
3. must complete at least eight to 12 credits in upper division courses and at least two of those courses must be completed in residence at CLU;
4. must achieve a minimum GPA of 2.0;
5. may not count internships toward the minor unless specifically required by the minor;
6. may use only one independent study course to meet minor requirements;
7. at least 75 percent of the required courses for a minor must be unduplicated with any other major or minor.

# Accounting - ADEP Program

## Bachelor of Science in Accounting

79 credits minimum; 62 upper division credits. 2.0 minimum GPA.

### Business

BUS 251	Principles of Accounting	4
BUS 252	Managerial Accounting	4
BUS 257	Practicum in Accounting	2
BUS 352A	Intermediate Accounting	4
BUS 352B	Intermediate Accounting II	4
BUS 367	Behavior in Organizations	4
BUS 374	Business Law	4
BUS 375	Principles of Marketing	4
BUS 391	Principles of Finance	4
BUS 451	Cost Accounting - Computer Application	4
BUS 452	Tax I	4
BUS 453	Auditing	4
BUS 454	Advanced Accounting	4
BUS 462	Tax II	4
BUS 484	Senior Seminar in Accounting - Capstone	4

### Economics

Select one of the following:		5-6
ECON 203/203L	General Economics and General Economics Lab	
ECON 200/201	Introduction to Micro-Economics and Introduction to MacRo-Economics	
ECON 311	Statistical Methods	4
<b>Communication</b>		
BUS 301	Communication for Managers	4
or COMM 306	Business and Professional Communication	
<b>Math</b>		
MATH 245	Applied Calculus	4
<b>Ethics</b>		
Select one of the following:		4
PHIL 300	Ethics	
PHIL 315	Social Ethics	
PHIL 350	Technology and Value	
REL 350	Contemporary Christian Ethics	
REL/BUS 354	Theology and Business Ethics	
Upper Division Elective Credits		2
Total Hours		81-82

## Courses

### Lower Division

#### **BUS 151. Introduction to Business. (4).**

Students will have instruction in various business and economic topics (Marketing, Management, Finance, Personal Financial Planning, Economics, etc.) to better prepare them for making informed choices in selecting their ultimate degree and emphasis areas of study. Students will benefit from an introduction to advising and academic guidance. They will have an opportunity to meet with and be instructed by various faculty members from the school of business on a "guest professor" basis. Students in this course will participate in benchmarking exercises to contribute to outcomes assessment reports. Prerequisite to BUS 251 - Principles of Accounting.

#### **BUS 251. Principles of Accounting. (4).**

An introduction to the basic assumptions that underlie modern accounting: the principles, procedures and methods applied in the preparation of financial statements. Prerequisite: MATH 115 or equivalent and BUS 151.

#### **BUS 252. Managerial Accounting. (4).**

An examination of how accounting data is used, communicated and interpreted for internal use. Emphasis is placed on planning, control and decision making, particularly in a manufacturing setting. This course will include instruction in and application of computer spreadsheet programs. The student will be required to use word-processing and spreadsheet programs for work submitted during this course. In addition, an introduction to and use of Internet research resources are included in the course syllabus. Prerequisite: BUS 251.

#### **BUS 253. Financial Information in Business Organization. (4).**

This course is designed for non-business majors who are not required to take Principles of Accounting or Managerial Accounting. The intent of the course is to provide students with sufficient background in accounting and finance to allow them to function more effectively in their chosen careers. To that end, the course will cover the basics of financial accounting and managerial accounting, with some additional material typically covered in finance and economics courses.

#### **BUS 255. Environment of Business. (4).**

This course provides an introduction to and an overview of topics and disciplines addressed and taught in a typical Schools of Management curriculum. The topics are important background for the non-business major. It is an introductory-level treatment of course topics required in business emphasis areas: Accounting, Finance, Marketing, Management, Economics, and others. Career Services on campus are the basis for assignments with a focus on career readiness. Spreadsheet software is taught and used for completing assignments for the course. Importantly, expectations and standards for further coursework will be communicated so students are better able to set goals for success in their academic pursuits and chosen career.

#### **BUS 257. Practicum in Accounting. (2).**

Basic principles of accounting will be presented as a review for a solid foundation in GAAP and accounting. The course will include theory, as well as the completion of hands on financial statements using Excel and other software.

**BUS 275. Intro to Advertising. (3).**

An exploration of advertising from the management-marketing, consumer and communications creativity viewpoint. Focus is on general principles and broad perspectives with particular emphasis on strategy and how advertising fits into the total sales program.

**BUS 282. Selected Topics. (1-4).****Upper Division****BUS 301. Communication for Managers. (4).**

The study of business communications methods with emphasis on planning, organizing, preparing and presenting major reports. Significant use of computer skills will be included, as well as design and structure of communication materials for the highest levels of impact.

**BUS 310. Managerial Use of Information Systems. (4).**

This course investigates the nature and uses of various types of information systems in business organizations, including decision support systems, expert systems, executive and management information systems, and communication systems. Examines the relationships between information system use and business strategy and the applications of information systems in the development of competitive advantage. (ADEP only).

**BUS 321. Computer Organizations and Architecture. (4).**

Principles of computer organization and architecture are introduced from a layered point of view, beginning at data representation and progressing through the machine language execution cycle. Representative hardware-software tradeoffs in the implementation of various computer system components will be presented. The design and interface to a variety of peripheral devices will also be discussed. The emphasis will be on the hardware aspects of a computer system.

**BUS 342. Marketing Research/Consumer Behavior. (4).**

A detailed focus on marketing research, strategy, statistical techniques and decision-theory concepts. Includes the nature of the influences affecting consumer behaviors, values, lifestyles, market segmentation, motivation and attitudes that form consumer marketing decisions. Prerequisite: junior standing.

**BUS 344. Copywriting/Storyboarding in Broadcast Advertising. (4).**

Designed as a "hands-on" communication and business course, this course provides an overview of broadcast media and develops skills in basic advertising/public relations campaign production techniques including scripting, copywriting and storyboarding. (cross-listed with COMM 344).

**BUS 350. Data Communication and Networks. (4).**

Includes a discussion of distributed data processing, communication techniques, wide-area and local-area networks, integrated services digital network, open-systems interconnections, security and network management.

**BUS 352A. Intermediate Accounting. (4).**

Includes detailed coverage of accounting theory and practice as applied to the corporate form of business. Topics include income statement, earnings per share, income tax allocation, compound interest, revenue recognition, price-level accounting, an introduction to fund accounting and a thorough treatment of balance sheet accounts. Prerequisites: BUS 251 (for BUS 352A), BUS 352A (for BUS 352B).

**BUS 352B. Intermediate Accounting II. (4).**

Includes detailed coverage of accounting theory and practice as applied to the corporate form of business. Topics include income statement, earnings per share, income tax allocation, compound interest, revenue recognition, price-level accounting, an introduction to fund accounting and a thorough treatment of balance sheet accounts. Prerequisites: BUS 251 (for BUS 352A), BUS 352A (for BUS 352B).

**BUS 354. Theology and Business Ethics. (4).**

This course applies ethical theory to business decisions within the context of theological reflection. With a strategic focus, the course will investigate the relationship between theological ethics and the economic concerns of managers. The course is particularly designed to help students become effective ethical agents by developing the skills to apply ethical principle to strategic business decisions. (cross-listed with REL 354).

**BUS 355. Client/Server Fundamentals. (4).**

Discusses modern technology in network communication and cooperative computation. Topics include client/server design concepts, software expectations, hardware requirements, service support and training issues. Prerequisite: CSC 220 or CSC 300.

**BUS 361. Human Resource Management. (4).**

A study of the use of the human resources within the organization. Includes recruiting, selecting and training employees, wage administration and union relations. Focus is on government regulation of employment practices, including Equal Opportunity Employment and affirmative action.

**BUS 365. Organization Theory. (4).**

Analysis and design of modern organizations with an emphasis on organizational technology. Perspectives include organization design, organization effectiveness and changing organization culture, and the organization and its external environment. Attention is given to emerging global realities. Integrates theoretical knowledge with practical applications.

**BUS 367. Behavior in Organizations. (4).**

An introduction to the methods and findings of the behavioral sciences on the persisting human problems of organizations. Attention is given to the roles of individual attributes, group dynamics and organizational structure in determining levels of performance at work. Prerequisite: junior standing.

**BUS 370. Multimedia Technology. (4).**

Introduces modern multimedia technologies. Topics include basic concepts, principles, sound images, animation, standards, hardware and software requirements, new technologies, current research and practice, and future directions.

**BUS 374. Business Law. (4).**

The study of law as it relates to business. Topics include contracts, agencies, commercial paper, personal property, sales, real property and insurance.

**BUS 375. Principles of Marketing. (4).**

The study of marketing methods and practices. Topics include policies and problems related to consumers, pricing, advertising, management information systems and distribution and management of the marketing function. (cross-listed with COMM 375).

**BUS 376. Sales Management. (4).**

This course concerns the sales and sales management functions as they exist in business-to-business sales settings. The course discusses current problems in sales management and the design of effective sales management processes and systems. Prerequisite: BUS 375.

**BUS 380. Principles of Advertising. (4).**

An exploration of advertising from an integrated marketing communications perspective. Focus is on general principles and broad perspectives with particular emphasis on strategy and the role of advertising in an integrated program. Students will examine consumer motivation, planning and development, the creative process and campaign execution and evaluation. (cross-listed with COMM 380).

**BUS 381. Information, Systems, and Organizational Design. (4).**

Surveys the major components of business information systems (hardware, networks, data and applications) and investigates the interrelationships between information, systems, organizational structure, processes and strategy.

**BUS 391. Principles of Finance. (4).**

Introduces students to the field of finance through an applied conceptual framework using problem sets and computer software to analyze various financial dilemmas. Topics include security valuation, risk analysis, working capital management, financial budgeting and planning, time value of money concepts, financial ratio analysis and capital budgeting. Prerequisite: BUS 252.

**BUS 392. Intermediate Finance. (4).**

Students learn to appreciate the usefulness and limitations of financial statements in valuation concepts and financial analysis and are made aware of the value of the role of financial information in capital markets. Concepts are reinforced through problem sets. Prerequisite: BUS 391.

**BUS 393. Corporate Finance. (4).**

Provides a conceptual framework for analyzing the major types of investment and financial decisions of corporations. The course reviews modern financial theory related to capital structure, cost of capital, dividend policy, intermediate and long-term financing, corporate restructuring and capital budgeting. Employs a mix of problem sets and cases. Prerequisite: BUS 391.

**BUS 394. International Business. (4).**

Covers international trade and its effect on the world economy. Includes the problems of the multinational firm and the impact of numerous environmental factors on the conduct of business across national boundaries.

**BUS 395. Financial Strategy. (4).**

Deals with corporate financial strategies primarily in the areas of valuation, capital structure, external financing, bankruptcy, mergers and acquisitions. These issues are addressed mostly in the context of case studies that illustrate how ideas studied in introductory finance courses are applied to real-world situations. Prerequisite: BUS 391.

**BUS 400. Graphical User Interface. (4).**

An introductory course to user interface fundamentals. Topics include development methodologies, evaluation techniques, user-interface building tools, considerations in the design phase, identification of design rules and successful delivery of the design. Prerequisite: CSC 220 or CSC 300.

**BUS 410. Database Management Systems. (4).**

Studies the concepts and structures necessary to design and operate a database management system. Topics include data modeling, relational database design and database querying.

**BUS 411. Sports-Related Marketing. (4).**

An introduction to management and marketing issues in the sports industry, with a particular emphasis on major and minor league professional sports. Students will receive a broad overview of the structure of sports and its relationship to the dominant culture, the economy and the media. (cross-listed with COMM 411).

**BUS 418. Business in China and India. (4).**

Students investigate China and India in terms of the macro forces and factors that comprise the business environment in these "big emerging markets." Students work to understand the demographic, economic, socio-cultural, political-legal, technological and natural forces that influence business in China and India. They compare and contrast how business is conducted within the two countries as well as with foreign enterprises, and they assess current and emerging opportunities for business in the region. Through readings, online research, discussions, and case analyses, students learn what appear to be critical factors for business success in China and India.

**BUS 420. White-Collar Crime. (4).**

This course will provide students with a critical examination of white-collar crime and deviance, its impact on society, and what might be done to address this social problem. Cross-listed with CRIM 420.

**BUS 429. Executive Roundtable. (4).**

This course is designed to provide students with an appreciation of how management and finance theory are integrated into the strategies of the modern cooperation.

**BUS 430. Integrated Marketing Communication. (4).**

This course explores the role of communications in marketing management, the strategic integration of promotional tools, and the application of generic IMC concepts in various social and organizational contexts-commercial, non-profit, domestic, and international. Communication trends and technologies are illuminated. The impact of marketing communications on individuals and on society as a whole is critically evaluated. Through readings, discussions, and analyzing cases, students learn how communications objectives are accomplished through carefully chosen combinations of public relations, advertising, sales promotion, personal selling, database and online marketing. Prerequisite: BUS 375 / COMM 375 Principles of Marketing.

**BUS 439. Senior Seminar in Management Thought and Practice. (4).**

The consideration of classic and contemporary writings on issues related to the management of the business enterprise and the role of business in the larger society. Prerequisite: senior standing.

**BUS 440. Marketing Simulations. (4).**

Emphasis is placed on the marketing planning function, consumer identification and buyer behavior, marketing strategies and price-value relationships.

**BUS 442. Advertising Campaigns. (4).**

Advances the principles learned in introductory advertising and marketing courses and includes the application of principles learned through the completion of an actual consumer-oriented marketing/advertising campaign. Includes lecture and lab. Prerequisites: BUS 375, senior standing. (cross-listed with COMM 442).

**BUS 443. Event Planning and Management. (4).**

The study of the theory and practice of various forms of event planning and management. The class will be using a hands-on approach to delve into this wonderful field and will include lessons on budget, décor, entertainment, types, and security issues. (cross-listed with COMM 443).

**BUS 445. Marketing and Management of Services. (4).**

Addresses marketing and management issues related to the service component of products, particularly products which are service-intensive. Topics include understanding the distinctive aspects of services, creating and delivering services, developing and managing the customer service function, balancing demand and supply in a service environment and others.

**BUS 446. Theories and Practice of Leadership. (4).**

Examines leadership from theoretical, historical and practical perspectives. Includes topics of trait, behavioral and contingency theories; the influence process; management vs. leadership, leadership and followership. Survey of leadership theory and research; characteristics of leaders, theories of leadership origins and psychological and social correlates. Interaction of personal and organizational factors in determining leadership effectiveness. (ADEP only).

**BUS 447. Social Marketing. (4).**

Reflecting the needs of social entrepreneurs, NGOs and nonprofit organizations, the course explores the use of marketing to effect behavioral changes for the benefit of individuals, society and the global environment. Social marketing is viewed in various organizational and cultural contexts, both domestic and international. Trends and technologies are critically evaluated. Through reading, discussion and practical application, students learn how social marketing objectives are accomplished through carefully chosen combinations of research, planning, implementation and program evaluation. Prerequisite: BUS 375 / COMM 375.

**BUS 448. Organization Development. (4).**

The study of planned change in organizations including diagnosis of the organization and implementation of organization development interventions. Emphasis on teamwork in organizations and survey development. Prerequisite: senior standing.

**BUS 449. Managerial Leadership: Core Competencies And Skills. (4).**

Focuses on the development of the core competencies and skills needed for effective managerial leadership at all levels of the organization. Each skill component will follow a five-step developmental pedagogy: (1) Assessment, (2) Learning, (3) Analysis, (4) Practice and (5) Application. Prerequisite: senior standing.

**BUS 450. Advanced Public Relations. (4).**

Students strengthen their command of the processes and techniques of public relations and apply them strategically to real-world PR stations. They apply the full process of public relations management, including research and analysis, planning, implementation, and control and evaluation, while producing a strategic PR plan and professional media kit. They role-play crisis communications planning and response in an emergency PR exercise. Ethical considerations in PR management are examined; the impact of current PR practices on individuals and society are critically evaluated. Prerequisite: COMM 342. (cross-listed with COMM 450).

**BUS 451. Cost Accounting - Computer Application. (4).**

Advanced study of the procedures used to determine costs for manufacturing operations. Includes process and differential costing, overhead allocation, profit-volume analysis, joint products and by-products and responsibility accounting. Emphasis is placed on making informed business decisions based on quantifiable data. Prerequisites: BUS 252; junior standing.

**BUS 452. Tax I. (4).**

A study of current federal tax laws and issues as they pertain to the individual taxpayer. Cases are used to provide practical experience in implementation of tax law interpretations; emphasis is placed on the evolution of the philosophy that drives development of the federal tax code. Prerequisite: BUS 251. (offered one semester each year).

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Covers the legal responsibilities, theory and procedures in the conduct of an audit and the making of an audit report. Prerequisite: BUS 352B. (offered one semester each year).

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Studies advanced human resource management problems and practices and is intended for students interested in a professional career as a human resource management specialist. Topics include selection, placement, employee development and employee relations in private and public sector organizations. Prerequisite: BUS 361.

**BUS 462. Tax II. (4).**

A study of tax laws and issues pertaining to business entities such as partnerships, C-corporations and S-corporations. Focuses on the taxation of estates and trusts and expands the study of personal taxation introduced in Tax I. Prerequisite: BUS 452. (offered one semester each year).

**BUS 463. Exporting/Importing. (4).**

Provides a pragmatic overview of the different aspects of importing/exporting and a working knowledge of the various terms and techniques essential to establish and maintain a profitable import/export business in America. Discussions and assignments will include the marketing organization, regulation, terms of access, documentation, shipments and financing involved with the international movement of products.

**BUS 468. Venture Development. (4).**

A study of venture development through entrepreneurship. Designed to help the student discover the opportunities and challenges of operating a business enterprise. The student will apply concepts learned in other business courses to the business operation. Recommended: BUS 391.

**BUS 469. Strategic Management (capstone). (4).**

Complex business cases integrating the fields of marketing, finance, law, accounting, economics and industrial management provide a realistic view of how general managers deal with conceptual business problems. Cases include analysis of strategic, interpersonal business problems. Prerequisite: senior standing; prerequisite/corequisite: BUS 391.

**BUS 472. International Finance. (4).**

Focuses on the financial environment surrounding multinational businesses involved in international trade, investment and financing. Covers management of current assets and liabilities, including foreign financing decisions and techniques, and investigates foreign investment decisions, feasibility analysis and capital budgeting. The course uses problem sets and case studies to reinforce the concepts discussed in class. Prerequisite: BUS 391. Recommended: senior standing.

**BUS 473. Marketing Management. (4).**

Focuses on the effective design and management of the marketing function in a business organization and the development of effective marketing programs. Topics include strategic marketing plans organization and incentive structures for the sales force, product launch, marketing communication and integration with other essential management functions. Prerequisites: BUS 375, senior standing.

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An exploration of international marketing conditions with emphasis on foreign market research; trade promotion; political, legal, economic and cultural environments; product and service adaptability; and the development of strategic marketing plans for multinational competition. Prerequisite: BUS 375.

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Provides the necessary background to critically evaluate both the practical and academic literature on investments. Stocks and bonds are addressed in market equilibrium and within the context of portfolio development. The capital asset pricing model, market efficiency and the investment environment are covered. Prerequisite: BUS 391.

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A review of current organizational development approaches developed in the United States for possible international application. Cultural influences fostering or hindering the development of effective humanistic organizations are explored. Prerequisite: BUS 394 or consent of instructor.

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An in-depth study of personal budgeting and long-term planning, investment opportunities, credit, financial institutions, insurance, risk preferences and goals. Prerequisite: junior standing.

**BUS 478. Pacific Rim/Art of Japanese Management. (4).**

An examination of our international trading partners in the Pacific Rim with special attention to their history, culture and political, economic, business and management systems. Attention is given to an assessment of both American and Japanese approaches to management and slow-growth economies. (cross-listed with POLS 478).

**BUS 479. Advanced Strategic Management. (4).**

Applies the principles of business and industry analysis and strategy formulation to the coming economic battles between Japan, United States and Europe and among the major emerging international trading blocs. Prerequisite: BUS 469.

**BUS 482. Selected Topics. (1-4).**

**BUS 484. Senior Seminar in Accounting - Capstone. (4).**

The alternative capstone course for B.S. in accounting majors. Includes the history and evolution of the accounting profession with an investigation and critique of current theory. Prerequisite: BUS 454.

**BUS 485. Seminar. (2-4).**

**BUS 490. Independent Study. (1-4).**

**BUS 492. Internship. (1-4).**

**BUS 493. Field Studies. (2).**

# Business Management - ADEP Program

## Bachelor of Science in Business Management

39 credits minimum; 28 upper division credits. 2.0 minimum GPA.

BUS 251	Principles of Accounting	4
BUS 252	Managerial Accounting	4
BUS 374	Business Law	4
BUS 310	Managerial Use of Information Systems	4
BUS 367	Behavior in Organizations	4
BUS 375	Principles of Marketing	4
BUS 391	Principles of Finance	4
BUS 469	Strategic Management (capstone)	4
BUS 476	International Business Behavior	4
ECON 311	Statistical Methods	4
Total Hours		40

### Required Supporting Courses

ECON 200	Introduction to Micro-Economics	3
ECON 201	Introduction to MacRo-Economics	3
BUS 301	Communication for Managers	4
MATH 115	Finite Mathematics	4
Select one of the following:		4
PHIL 315	Social Ethics	
PHIL 350	Technology and Value	
REL 350	Contemporary Christian Ethics	
Total Hours		18

### Minor in Business Administration

20 credits minimum; 12 upper division credits. 2.0 minimum GPA.

BUS 251	Principles of Accounting	4
BUS 252	Managerial Accounting	4
BUS 391	Principles of Finance	4
Select two of the following:		8
BUS 367	Behavior in Organizations	
BUS 374	Business Law	
BUS 375	Principles of Marketing	
BUS 381	Information, Systems, and Organizational Design	
ECON 311	Statistical Methods	
Total Hours		20

### Required Supporting Course:

ECON 203/203L	General Economics and General Economics Lab	5
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## Courses

### Lower Division

#### **BUS 151. Introduction to Business. (4).**

Students will have instruction in various business and economic topics (Marketing, Management, Finance, Personal Financial Planning, Economics, etc.) to better prepare them for making informed choices in selecting their ultimate degree and emphasis areas of study. Students will benefit from an introduction to advising and academic guidance. They will have an opportunity to meet with and be instructed by various faculty members from the school of business on a "guest professor" basis. Students in this course will participate in benchmarking exercises to contribute to outcomes assessment reports. Prerequisite to BUS 251 - Principles of Accounting.

#### **BUS 251. Principles of Accounting. (4).**

An introduction to the basic assumptions that underlie modern accounting: the principles, procedures and methods applied in the preparation of financial statements. Prerequisite: MATH 115 or equivalent and BUS 151.

#### **BUS 252. Managerial Accounting. (4).**

An examination of how accounting data is used, communicated and interpreted for internal use. Emphasis is placed on planning, control and decision making, particularly in a manufacturing setting. This course will include instruction in and application of computer spreadsheet programs. The student will be required to use word-processing and spreadsheet programs for work submitted during this course. In addition, an introduction to and use of Internet research resources are included in the course syllabus. Prerequisite: BUS 251.

#### **BUS 253. Financial Information in Business Organization. (4).**

This course is designed for non-business majors who are not required to take Principles of Accounting or Managerial Accounting. The intent of the course is to provide students with sufficient background in accounting and finance to allow them to function more effectively in their chosen careers. To that end, the course will cover the basics of financial accounting and managerial accounting, with some additional material typically covered in finance and economics courses.

#### **BUS 255. Environment of Business. (4).**

This course provides an introduction to and an overview of topics and disciplines addressed and taught in a typical Schools of Management curriculum. The topics are important background for the non-business major. It is an introductory-level treatment of course topics required in business emphasis areas: Accounting, Finance, Marketing, Management, Economics, and others. Career Services on campus are the basis for assignments with a focus on career readiness. Spreadsheet software is taught and used for completing assignments for the course. Importantly, expectations and standards for further coursework will be communicated so students are better able to set goals for success in their academic pursuits and chosen career.

#### **BUS 257. Practicum in Accounting. (2).**

Basic principles of accounting will be presented as a review for a solid foundation in GAAP and accounting. The course will include theory, as well as the completion of hands on financial statements using Excel and other software.

#### **BUS 275. Intro to Advertising. (3).**

An exploration of advertising from the management-marketing, consumer and communications creativity viewpoint. Focus is on general principles and broad perspectives with particular emphasis on strategy and how advertising fits into the total sales program.

#### **BUS 282. Selected Topics. (1-4).**

### Upper Division

#### **BUS 301. Communication for Managers. (4).**

The study of business communications methods with emphasis on planning, organizing, preparing and presenting major reports. Significant use of computer skills will be included, as well as design and structure of communication materials for the highest levels of impact.

#### **BUS 310. Managerial Use of Information Systems. (4).**

This course investigates the nature and uses of various types of information systems in business organizations, including decision support systems, expert systems, executive and management information systems, and communication systems. Examines the relationships between information system use and business strategy and the applications of information systems in the development of competitive advantage. (ADEP only).

#### **BUS 321. Computer Organizations and Architecture. (4).**

Principles of computer organization and architecture are introduced from a layered point of view, beginning at data representation and progressing through the machine language execution cycle. Representative hardware-software tradeoffs in the implementation of various computer system components will be presented. The design and interface to a variety of peripheral devices will also be discussed. The emphasis will be on the hardware aspects of a computer system.

**BUS 342. Marketing Research/Consumer Behavior. (4).**

A detailed focus on marketing research, strategy, statistical techniques and decision-theory concepts. Includes the nature of the influences affecting consumer behaviors, values, lifestyles, market segmentation, motivation and attitudes that form consumer marketing decisions. Prerequisite: junior standing.

**BUS 344. Copywriting/Storyboarding in Broadcast Advertising. (4).**

Designed as a "hands-on" communication and business course, this course provides an overview of broadcast media and develops skills in basic advertising/public relations campaign production techniques including scripting, copywriting and storyboarding. (cross-listed with COMM 344).

**BUS 350. Data Communication and Networks. (4).**

Includes a discussion of distributed data processing, communication techniques, wide-area and local-area networks, integrated services digital network, open-systems interconnections, security and network management.

**BUS 352A. Intermediate Accounting. (4).**

Includes detailed coverage of accounting theory and practice as applied to the corporate form of business. Topics include income statement, earnings per share, income tax allocation, compound interest, revenue recognition, price-level accounting, an introduction to fund accounting and a thorough treatment of balance sheet accounts. Prerequisites: BUS 251 (for BUS 352A), BUS 352A (for BUS 352B).

**BUS 352B. Intermediate Accounting II. (4).**

Includes detailed coverage of accounting theory and practice as applied to the corporate form of business. Topics include income statement, earnings per share, income tax allocation, compound interest, revenue recognition, price-level accounting, an introduction to fund accounting and a thorough treatment of balance sheet accounts. Prerequisites: BUS 251 (for BUS 352A), BUS 352A (for BUS 352B).

**BUS 354. Theology and Business Ethics. (4).**

This course applies ethical theory to business decisions within the context of theological reflection. With a strategic focus, the course will investigate the relationship between theological ethics and the economic concerns of managers. The course is particularly designed to help students become effective ethical agents by developing the skills to apply ethical principle to strategic business decisions. (cross-listed with REL 354).

**BUS 355. Client/Server Fundamentals. (4).**

Discusses modern technology in network communication and cooperative computation. Topics include client/server design concepts, software expectations, hardware requirements, service support and training issues. Prerequisite: CSC 220 or CSC 300.

**BUS 361. Human Resource Management. (4).**

A study of the use of the human resources within the organization. Includes recruiting, selecting and training employees, wage administration and union relations. Focus is on government regulation of employment practices, including Equal Opportunity Employment and affirmative action.

**BUS 365. Organization Theory. (4).**

Analysis and design of modern organizations with an emphasis on organizational technology. Perspectives include organization design, organization effectiveness and changing organization culture, and the organization and its external environment. Attention is given to emerging global realities. Integrates theoretical knowledge with practical applications.

**BUS 367. Behavior in Organizations. (4).**

An introduction to the methods and findings of the behavioral sciences on the persisting human problems of organizations. Attention is given to the roles of individual attributes, group dynamics and organizational structure in determining levels of performance at work. Prerequisite: junior standing.

**BUS 370. Multimedia Technology. (4).**

Introduces modern multimedia technologies. Topics include basic concepts, principles, sound images, animation, standards, hardware and software requirements, new technologies, current research and practice, and future directions.

**BUS 374. Business Law. (4).**

The study of law as it relates to business. Topics include contracts, agencies, commercial paper, personal property, sales, real property and insurance.

**BUS 375. Principles of Marketing. (4).**

The study of marketing methods and practices. Topics include policies and problems related to consumers, pricing, advertising, management information systems and distribution and management of the marketing function. (cross-listed with COMM 375).

**BUS 376. Sales Management. (4).**

This course concerns the sales and sales management functions as they exist in business-to-business sales settings. The course discusses current problems in sales management and the design of effective sales management processes and systems. Prerequisite: BUS 375.

**BUS 380. Principles of Advertising. (4).**

An exploration of advertising from an integrated marketing communications perspective. Focus is on general principles and broad perspectives with particular emphasis on strategy and the role of advertising in an integrated program. Students will examine consumer motivation, planning and development, the creative process and campaign execution and evaluation. (cross-listed with COMM 380).

**BUS 381. Information, Systems, and Organizational Design. (4).**

Surveys the major components of business information systems (hardware, networks, data and applications) and investigates the interrelationships between information, systems, organizational structure, processes and strategy.

**BUS 391. Principles of Finance. (4).**

Introduces students to the field of finance through an applied conceptual framework using problem sets and computer software to analyze various financial dilemmas. Topics include security valuation, risk analysis, working capital management, financial budgeting and planning, time value of money concepts, financial ratio analysis and capital budgeting. Prerequisite: BUS 252.

**BUS 392. Intermediate Finance. (4).**

Students learn to appreciate the usefulness and limitations of financial statements in valuation concepts and financial analysis and are made aware of the value of the role of financial information in capital markets. Concepts are reinforced through problem sets. Prerequisite: BUS 391.

**BUS 393. Corporate Finance. (4).**

Provides a conceptual framework for analyzing the major types of investment and financial decisions of corporations. The course reviews modern financial theory related to capital structure, cost of capital, dividend policy, intermediate and long-term financing, corporate restructuring and capital budgeting. Employs a mix of problem sets and cases. Prerequisite: BUS 391.

**BUS 394. International Business. (4).**

Covers international trade and its effect on the world economy. Includes the problems of the multinational firm and the impact of numerous environmental factors on the conduct of business across national boundaries.

**BUS 395. Financial Strategy. (4).**

Deals with corporate financial strategies primarily in the areas of valuation, capital structure, external financing, bankruptcy, mergers and acquisitions. These issues are addressed mostly in the context of case studies that illustrate how ideas studied in introductory finance courses are applied to real-world situations. Prerequisite: BUS 391.

**BUS 400. Graphical User Interface. (4).**

An introductory course to user interface fundamentals. Topics include development methodologies, evaluation techniques, user-interface building tools, considerations in the design phase, identification of design rules and successful delivery of the design. Prerequisite: CSC 220 or CSC 300.

**BUS 410. Database Management Systems. (4).**

Studies the concepts and structures necessary to design and operate a database management system. Topics include data modeling, relational database design and database querying.

**BUS 411. Sports-Related Marketing. (4).**

An introduction to management and marketing issues in the sports industry, with a particular emphasis on major and minor league professional sports. Students will receive a broad overview of the structure of sports and its relationship to the dominant culture, the economy and the media. (cross-listed with COMM 411).

**BUS 418. Business in China and India. (4).**

Students investigate China and India in terms of the macro forces and factors that comprise the business environment in these "big emerging markets." Students work to understand the demographic, economic, socio-cultural, political-legal, technological and natural forces that influence business in China and India. They compare and contrast how business is conducted within the two countries as well as with foreign enterprises, and they assess current and emerging opportunities for business in the region. Through readings, online research, discussions, and case analyses, students learn what appear to be critical factors for business success in China and India.

**BUS 420. White-Collar Crime. (4).**

This course will provide students with a critical examination of white-collar crime and deviance, its impact on society, and what might be done to address this social problem. Cross-listed with CRIM 420.

**BUS 429. Executive Roundtable. (4).**

This course is designed to provide students with an appreciation of how management and finance theory are integrated into the strategies of the modern cooperation.

**BUS 430. Integrated Marketing Communication. (4).**

This course explores the role of communications in marketing management, the strategic integration of promotional tools, and the application of generic IMC concepts in various social and organizational contexts-commercial, non-profit, domestic, and international. Communication trends and technologies are illuminated. The impact of marketing communications on individuals and on society as a whole is critically evaluated. Through readings, discussions, and analyzing cases, students learn how communications objectives are accomplished through carefully chosen combinations of public relations, advertising, sales promotion, personal selling, database and online marketing. Prerequisite: BUS 375 / COMM 375 Principles of Marketing.

**BUS 439. Senior Seminar in Management Thought and Practice. (4).**

The consideration of classic and contemporary writings on issues related to the management of the business enterprise and the role of business in the larger society. Prerequisite: senior standing.

**BUS 440. Marketing Simulations. (4).**

Emphasis is placed on the marketing planning function, consumer identification and buyer behavior, marketing strategies and price-value relationships.

**BUS 442. Advertising Campaigns. (4).**

Advances the principles learned in introductory advertising and marketing courses and includes the application of principles learned through the completion of an actual consumer-oriented marketing/advertising campaign. Includes lecture and lab. Prerequisites: BUS 375, senior standing. (cross-listed with COMM 442).

**BUS 443. Event Planning and Management. (4).**

The study of the theory and practice of various forms of event planning and management. The class will be using a hands-on approach to delve into this wonderful field and will include lessons on budget, décor, entertainment, types, and security issues. (cross-listed with COMM 443).

**BUS 445. Marketing and Management of Services. (4).**

Addresses marketing and management issues related to the service component of products, particularly products which are service-intensive. Topics include understanding the distinctive aspects of services, creating and delivering services, developing and managing the customer service function, balancing demand and supply in a service environment and others.

**BUS 446. Theories and Practice of Leadership. (4).**

Examines leadership from theoretical, historical and practical perspectives. Includes topics of trait, behavioral and contingency theories; the influence process; management vs. leadership, leadership and followership. Survey of leadership theory and research; characteristics of leaders, theories of leadership origins and psychological and social correlates. Interaction of personal and organizational factors in determining leadership effectiveness. (ADEP only).

**BUS 447. Social Marketing. (4).**

Reflecting the needs of social entrepreneurs, NGOs and nonprofit organizations, the course explores the use of marketing to effect behavioral changes for the benefit of individuals, society and the global environment. Social marketing is viewed in various organizational and cultural contexts, both domestic and international. Trends and technologies are critically evaluated. Through reading, discussion and practical application, students learn how social marketing objectives are accomplished through carefully chosen combinations of research, planning, implementation and program evaluation. Prerequisite: BUS 375 / COMM 375.

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The study of planned change in organizations including diagnosis of the organization and implementation of organization development interventions. Emphasis on teamwork in organizations and survey development. Prerequisite: senior standing.

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**BUS 485. Seminar. (2-4).****BUS 490. Independent Study. (1-4).****BUS 492. Internship. (1-4).****BUS 493. Field Studies. (2).**

## Computer Information Systems - ADEP

### Bachelor of Science in Computer Information Systems

48 credits minimum; 36 upper division credits. 2.0 minimum GPA.

CSC 210	Introduction to Computer Programming	4
CSC 331	Systems Analysis	4
CSC 350	Introduction to Data Communications and Networks	4
CSC 410	Database Management Systems	4
CSC 499	Capstone	4
BUS 253	Financial Information in Business Organization	4
BUS 367	Behavior in Organizations	4
MATH 241	Discrete Mathematics	4
Electives <sup>1</sup>		16
Total Hours		48

<sup>1</sup> Sixteen (16) additional upper division Computer Science credits in which up to 8 credits can be substituted by recommended Business Administration courses.

### Minor in Computer Information Systems

20 credits minimum, 12 credits upper division.

Computer Science Credits (at least 4 units must be upper division)		12
BUS 367	Behavior in Organizations	4
BUS 381	Information, Systems, and Organizational Design	4
Total Hours		20

## Courses

### Lower Division

#### **CSC 102. Introduction to Computers. (4).**

A first course intended for novice computer users that introduces microcomputers, word processing, spreadsheets, selected computer applications software and Internet utilities. In addition, the student learns the proper use of various computer peripherals including diskette drives, mice, keyboards, scanner and advanced digital devices.

#### **CSC 110. Concepts of Programming. (4).**

Introduction of logic concepts in programming. Breadth approach to essential elements of computer programming. Text based operating systems such as DOS will be discussed. Topics covered are problem solving concepts, computer systems, disk operating systems, computer programming languages, programming fundamentals, testing and debugging, conditions and branching, loops, flowcharts, compound statements, non-compound statements, top-down program design.

#### **CSC 205. Programming for Scientists. (4).**

This course introduces the principles of computer programming, problem-solving methods, and algorithm development from a scientific perspective. The programming languages covered are C (a compiled language popular among engineers and mathematicians), and Perl (a scripting language popular among bioengineers) both in wide use in scientific fields. Also covered are introductory software engineering techniques and tools necessary to convert a functional specification to a properly functioning program. Examples and assignments will be drawn from the natural sciences. (Cross listed with SCI 205).

#### **CSC 210. Introduction to Computer Programming. (4).**

First-semester computer programming course. This course introduces the principles of computer science, problem-solving methods and algorithm development using a high-level language. This is a programming class primarily for computer science, computer information systems, mathematics, and science majors. The ability to use a computer is essential. Prerequisites: CSC 110 or permission of instructor, MATH 110 or equivalent.

#### **CSC 220. Advanced Computer Programming. (4).**

A second-semester computer programming course. This course takes a state-of-the-art approach to software design/development with object-oriented techniques. Topics include algorithm analysis, string processing, internal search/sort methods, complex data structures, design strategies, and code reusability. Prerequisite: CSC 210.

### Upper Division

#### **CSC 300. Visual Programming. (4).**

Advanced programming course which focuses on the design of visual user-interface in the Windows environment. Topics include basic forms, simple structures, variables, control mechanism, types and expressions, complex data structure, looping, functions, procedures, selections, multiple forms, files and arrays. Prerequisite: CSC 210.

#### **CSC 310. Algorithms. (4).**

Continues the study of the design and analysis of algorithms, particularly those handling complex data structures and non-numeric processes. Includes an introduction to algorithm design techniques, algorithm verification and the impact of parallel computation on algorithms, operating systems and architectures. A brief introduction is given to artificial intelligence focusing on data representation and heuristic search methods. Prerequisites: CSC 210, MATH 241.

#### **CSC 315. Object-Oriented Design and Analysis. (4).**

Discusses the features and advantages of an object-oriented approach to problem solving. Topics include abstraction, inheritance, polymorphism, object-oriented design, analysis, implementation and testing. Prerequisites: CSC 210.

#### **CSC 321. Computer Organization and Architecture. (4).**

Principles of computer organization and architecture are introduced from a layered point of view, beginning at data representation and progressing through the machine language execution cycle. Representative software-hardware tradeoffs in the implementation of various computer system components will be presented. The design and interface to a variety of peripheral devices will also be discussed. The emphasis will be on the hardware aspects of a computer system. Prerequisites: CSC 210, MATH 241.

#### **CSC 325. Organization of Programming Languages. (4).**

Covers introduction of major language histories, common components, built-in structures, compositions of basic structures, language specification, analysis techniques, runtime behavior, de-facto standards, and future developments. Prerequisites: CSC 210, MATH 241.

**CSC 331. Systems Analysis. (4).**

This is the first course in system engineering that stresses the system development life cycle. Students learn ways of organizing the structure and process of building very large-scale systems that may or may not involve computers. Includes information gathering, design tradeoffs, implementation strategies, product liability, acceptable risk analysis and project follow-up. Prerequisites: CSC 210, MATH 241.

**CSC 332. Introduction to E-Commerce. (4).**

Overview of eCommerce from business aspects to required eCommerce technical skills. A lecture based course with extensive online research for eCommerce information, useful sites, case studies and Web tools. A basic e-Commerce architecture of three tiers such as the front-end tier, the Web server tier and the back-end system tier in Windows NT and Unix. Connectivity to the back-end database system and legacy systems. Security, protection, electronic payment, firewall and proxy. Several Web designing tools and programming skills. The course builds a foundation for students to pursue higher level e-Commerce courses. Prerequisites: CSC 110 or permission of instructor.

**CSC 335. Software Engineering. (4).**

Presents a formal approach to state-of-the-art techniques for software design and development, involving students in a team approach to organizing, managing and developing software. Prerequisites: CSC 210, MATH 241.

**CSC 340. Operating Systems. (4).**

Discusses the major functionality and principles behind all major operating systems tasks, including user interface, hardware sharing among users, data sharing among processes, user protections, resources scheduling among users, multi-user environment, multi-processing and real-time systems. Prerequisites: CSC 210, MATH 241.

**CSC 344. Web Design. (4).**

Studies the backbone of dynamic Web documents. Subjects include Web design standards, and Web-based application programming to make layout, tables, style sheets, templates, libraries, frames and rollovers. HTML and script languages such as Java Scripts, GUI design paint tools and plug-ins are studied in depth. Prerequisites: CSC 210, MATH 241.

**CSC 350. Introduction to Data Communications and Networks. (4).**

Includes discussion of distributed data processing, communication techniques, wide-area and local-area networks, integrated services digital network, open-systems interconnection, security and network management. Prerequisites: CSC 210, MATH 241.

**CSC 355. Client/Server Fundamentals. (4).**

Discusses modern technology in network communication and cooperative computation. Topics include discussion of client/server design concept, software expectation, hardware requirement, service, support and training issues. Prerequisites: CSC 210.

**CSC 360. Computer System Security. (4).**

An introduction of security issues in computer system and data communications, including Data Encryption Standard, public-key systems, digital signatures, ciphers, data compression, data manipulation and supporting techniques. Prerequisites: CSC 210, MATH 241.

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**CSC 400. Graphical User Interface. (4).**

An introductory course to user interface design fundamentals. Topics include development methodologies, evaluation techniques, user-interface building tools, considerations in the design phase, identification of applicable design rules, and successful delivery of the design. Prerequisite: CSC 210.

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Review of graphic display architecture and graphic input devices. Coverage includes two- and three-dimensional drawing, viewing, clipping, transformations, shading and data structures for graphics systems. Prerequisites: CSC 210, MATH 241.

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The course introduces commonly used methods for analyzing biological data such as DNA and protein sequences and covers phylogenetic tree construction and 3D folding of biomolecules. It examines bioinformatics algorithms such as sequence search and alignment and its underlying principles and implements simple algorithms using Perl programming language. Prerequisites CSC 110 / CSC 210, & MATH 352 for CS majors. CSC 110 / CSC 210, MATH 352, & BIOL 422 for Biology majors.

**CSC 482. Selected Topics. (1-4).**

**CSC 490. Independent Study. (1-4).**

**CSC 492. Internship. (1-4).**  
(graded P/NC only).

**CSC 493. Field Study. (2).**

**CSC 499. Capstone. (4).**  
Undergraduate research or development project. The exact nature of the project is negotiated with the sponsoring professor.

## Computer Science - ADEP Program

### Bachelor of Science in Computer Science

48 credits minimum; 36 upper division credits. 2.0 minimum GPA.

CSC 210	Introduction to Computer Programming	4
CSC 220	Advanced Computer Programming	4
CSC 335	Software Engineering	4
CSC 340	Operating Systems	4
CSC 350	Introduction to Data Communications and Networks	4
CSC 499	Capstone	4
Additional Upper Division Computer Science Credits		20
MATH 241	Discrete Mathematics	4
Total Hours		48

### Minor in Computer Science

20 Computer Science credits minimum; 12 credits upper division.

## Courses

### Lower Division

**CSC 102. Introduction to Computers. (4).**

A first course intended for novice computer users that introduces microcomputers, word processing, spreadsheets, selected computer applications software and Internet utilities. In addition, the student learns the proper use of various computer peripherals including diskette drives, mice, keyboards, scanner and advanced digital devices.

**CSC 110. Concepts of Programming. (4).**

Introduction of logic concepts in programming. Breadth approach to essential elements of computer programming. Text based operating systems such as DOS will be discussed. Topics covered are problem solving concepts, computer systems, disk operating systems, computer programming languages, programming fundamentals, testing and debugging, conditions and branching, loops, flowcharts, compound statements, non-compound statements, top-down program design.

**CSC 205. Programming for Scientists. (4).**

This course introduces the principles of computer programming, problem-solving methods, and algorithm development from a scientific perspective. The programming languages covered are C (a compiled language popular among engineers and mathematicians), and Perl (a scripting language popular among bioengineers) both in wide use in scientific fields. Also covered are introductory software engineering techniques and tools necessary to convert a functional specification to a properly functioning program. Examples and assignments will be drawn from the natural sciences. (Cross listed with SCI 205).

**CSC 210. Introduction to Computer Programming. (4).**

First-semester computer programming course. This course introduces the principles of computer science, problem-solving methods and algorithm development using a high-level language. This is a programming class primarily for computer science, computer information systems, mathematics, and science majors. The ability to use a computer is essential. Prerequisites: CSC 110 or permission of instructor, MATH 110 or equivalent.

**CSC 220. Advanced Computer Programming. (4).**

A second-semester computer programming course. This course takes a state-of-the-art approach to software design/development with object-oriented techniques. Topics include algorithm analysis, string processing, internal search/sort methods, complex data structures, design strategies, and code reusability. Prerequisite: CSC 210.

## Upper Division

**CSC 300. Visual Programming. (4).**

Advanced programming course which focuses on the design of visual user-interface in the Windows environment. Topics include basic forms, simple structures, variables, control mechanism, types and expressions, complex data structure, looping, functions, procedures, selections, multiple forms, files and arrays. Prerequisite: CSC 210.

**CSC 310. Algorithms. (4).**

Continues the study of the design and analysis of algorithms, particularly those handling complex data structures and non-numeric processes. Includes an introduction to algorithm design techniques, algorithm verification and the impact of parallel computation on algorithms, operating systems and architectures. A brief introduction is given to artificial intelligence focusing on data representation and heuristic search methods. Prerequisites: CSC 210, MATH 241.

**CSC 315. Object-Oriented Design and Analysis. (4).**

Discusses the features and advantages of an object-oriented approach to problem solving. Topics include abstraction, inheritance, polymorphism, object-oriented design, analysis, implementation and testing. Prerequisites: CSC 210.

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**CSC 482. Selected Topics. (1-4).****CSC 490. Independent Study. (1-4).****CSC 492. Internship. (1-4).**

(graded P/NC only).

**CSC 493. Field Study. (2).****CSC 499. Capstone. (4).**

Undergraduate research or development project. The exact nature of the project is negotiated with the sponsoring professor.

## Liberal Studies - ADEP Program

### Bachelor of Arts in Liberal Studies <sup>1</sup>

#### Education

EDGN 503	Introduction to Special Education	3
EDTP 500	Social and Cultural Foundations in Education	3

EDTP 563	Microcomputers in Education	3
EDUC 362	Career Decisions in Education	3
LIBA 325	Liberal Studies Seminar	2
LIBA 402	Theories of Teaching and Learning - Capstone	3
<b>English</b>		
ENGL 111	Critical Reading and Writing	3
ENGL 312	The Teaching of Writing	3
ENGL 316	First and Second Language Acquisition	4
ENGL 335	Children's Literature	3
<b>Ethics</b>		
Select one of the following:		4
PHIL 315	Social Ethics	
PHIL 350	Technology and Value	
REL 350	Contemporary Christian Ethics	
<b>Exercise Science</b>		
EXSC 354	Elementary School Physical Education	4
<b>History</b>		
Select one of the following:		4
HIST 101	World Civilization to 1500	
HIST 102	World Civilizations Since 1500	
Select one of the following:		4
HIST 326	Civil War: Slavery to Civil Rights	
HIST 341	United States Women's History	
<b>Literature</b>		
Select one of the following:		4
ENGL 213	Literature of the Americas	
ENGL 214	Contemporary American Authors	
ENGL 350	Studies in African-American Literature	
ENGL 455	Major American Authors	
<b>Math</b>		
MATH 128	Topics in Liberal Arts Math	4
<b>Natural Science</b>		
Natural Science w/ lab		4
Natural Science w/ lab		4
<b>Social Science</b>		
POLS 102	Theory and Practice of American Government	4
PSYC 200	General Psychology	4
<b>Visual &amp; Performing Arts</b>		
MUS 102	Fundamentals of Music	3
Select one of the following:		3
ART 235	Photography	
ART 380	Computer Graphics	
Select one of the following:		4
TA 131	Beginning Acting	
TA 440	Creative Dramatics for Children and Youth	
Total Hours		80

1 80 credits minimum; 37 upper division credits. 2.0 minimum GPA.

# Organizational Leadership - ADEP Program

## Bachelor of Science in Organizational Leadership

44 credits minimum; 40 upper division credits in Business Administration, Communication, Psychology and Religion. 2.0 minimum GPA.

BUS 301	Communication for Managers	4
BUS 361	Human Resource Management	4
BUS 367	Behavior in Organizations	4
COMM 342	Public Relations	4
ECON 311	Statistical Methods	4
PSYC 200	General Psychology	4
PSYC 401	Social Psychology	4
BUS 446	Theories and Practice of Leadership	4
BUS 448	Organization Development	4
BUS 449	Managerial Leadership: Core Competencies And Skills	4
Select one of the following:		4
PHIL 315	Social Ethics	
PHIL 350	Technology and Value	
REL 350	Contemporary Christian Ethics	
Total Hours		44

# Psychology - ADEP Program

## Bachelor of Arts in Psychology

36 credits minimum; 24 credits upper division. 2.0 minimum GPA.

PSYC 200	General Psychology	4
PSYC 222	Abnormal Psychology	4
PSYC 312	Research Design and Statistics I	4
PSYC 313	Research Design and Statistics II	4
PSYC 331	Physiological Psychology	4
Select one of the following:		4
PSYC 304	Child and Adolescent Development	
PSYC 305	Adult Development and Aging	
PSYC 325	Theories of Personality	
PSYC 401	Social Psychology	
Select one of the following:		4
PSYC 315	Principles of Learning and Memory	
PSYC 321	Human Cognition	
PSYC 340	History and Systems of Psychology	
PSYC 416	Social Learning Theory: Research and Application	
Select one of the following:		4
PSYC 430	Applied Psychology Practicum	
PSYC 435	Introduction to Counseling and Psychotherapy	
PSYC 494	Clinical Practicum	
Additional Psychology Credits		4
Total Hours		36

## Minor in Psychology

19 credits minimum; 12 credits upper division. 2.0 minimum GPA.

PSYC 200	General Psychology	4
Psychology Electives (12 credits must be upper division)		15
Total Hours		19

## Courses

### Lower Division

#### **PSYC 200. General Psychology. (4).**

Covers the concepts and principles pertinent to psychological processes as social behavior, development, perception, thinking and symbolic processes, physiology, personality and psychological disorders. Introduces students to the empirical foundation of the discipline of psychology. Prerequisite to all courses in psychology except PSYC 203, PSYC 207 and PSYC 215.

#### **PSYC 203. Understanding Emotion. (4).**

This course provides an introduction to the study of emotions. Themes covered include the biological basis of emotions, individual differences in emotionality, emotions in social relationships, cultural understanding of emotions, emotions and psychopathology, and Ganzheitspsychologie. Emphasis on research methodology and ethics is also covered.

#### **PSYC 207. Mentor Leadership. (1).**

The Peer Advisor component of the first year of transfer student experience represents an ideal opportunity to positively influence undergraduate students' academics and personal success. Peer Advisors impact student development by supporting the acquisition and application of academic strategies, creating familiarity with campus resources and their appropriate use, and creating a sense of community at CLU in the first year. This important role can also be defined as a mentor. This course is designed to teach Peer Advisors the skills necessary to become mentors, and provides them with information and opportunities to help new students with their transition to college. We will examine various theories, and style types while honing in on leadership styles that are often found in mentors.

#### **PSYC 215. Perspectives on Women and Men. (4).**

An examination of current sociological and psychological theory and research on the causes and consequence of sex role expectations to individuals, society and the relationship between men and women.

#### **PSYC 222. Abnormal Psychology. (4).**

A survey and critique of traditional diagnostic categories of mental illness, plus an introduction to treatment approaches based on psychoanalytic, behavioral and humanistic models.

#### **PSYC 282. Selected Topics. (1-4).**

### Upper Division

#### **PSYC 304. Child and Adolescent Development. (4).**

Study of theories and principles pertaining to the developmental characteristics of children and adolescents in terms of the physical, mental, emotional and social development of the individual. Meets the gender/ethnic studies requirement.

#### **PSYC 305. Adult Development and Aging. (4).**

Study of theories and principles pertaining to the developmental characteristics of adults, including the aged, in terms of the physical, mental, emotional and social development of the individual. Meets the gender/ethnic studies requirement.

#### **PSYC 311L. Statistics Lab. (1).**

An introduction to computer applications for statistics, emphasizing data analysis and problem solving with contemporary statistical software programs. Corequisite: Psyc 311 (must be taken simultaneously).

#### **PSYC 312. Research Design and Statistics I. (4).**

Research Design and Statistics I is the first of a two course sequence in Psychology designed to prepare undergraduate psychology majors to develop the knowledge and skills needed to design, implement and analyze psychological research. Students will develop knowledge about ethical issues related to psychological research. Students will develop skill in critical reading and analyzing peer reviewed published research. This course will also introduce students to a variety of research designs and statistical analyses including qualitative, descriptive and correlation methodologies. (Prerequisite: MATH 115 or MATH 151 or equivalent).

**PSYC 313. Research Design and Statistics II. (4).**

Research Design and Statistics II is the second course in a two course sequence designed to assist undergraduate psychology majors in developing the knowledge and skills needed to design, implement and analyze psychological research. Building on the skills learned in PSYC 312, students will continue to develop knowledge about psychological research with a focus on experimental designs, quasi-experimental designs and inferential statistics. Students are required to design and implement an original research project using an experimental design. This course is a writing intensive course (Prerequisite: PSYC 312).

**PSYC 315. Principles of Learning and Memory. (4).**

An overview of the major principles of learning and memory. Includes Pavlovian and instrumental conditioning as well as verbal learning and memory. Includes an examination of topical issues and areas of research in learning theory.

**PSYC 317. Cultural Psychology. (4).**

This course provides a systematic overview of knowledge about cultural organization of human psychological functions, and how psychology as a research discipline can study these functions. Strong theoretical and methodological orientation is included.

**PSYC 321. Human Cognition. (4).**

Examines perception, attention, memory, language and problem solving. In addition to studying research and theory, students experience and observe cognitive processes in computer labs and class demonstrations. Cognitive deficits and rehabilitation are discussed in each topic area.

**PSYC 325. Theories of Personality. (4).**

The analysis of the theories of personality in terms of structure, dynamics and development. Biological, social and cultural determination of personality are considered, as well as characteristic research and research methods.

**PSYC 330. Psychological Assessment. (4).**

Studies the principles and practices of group and individual testing in the fields of intelligence, aptitude, achievement, personality and vocational interest. Includes an introduction to the MMPI-2 and Wechsler tests and projective techniques.

**PSYC 331. Physiological Psychology. (4).**

Studies the physiological aspects of human behavior, with special emphasis on neurological structure and functions as related to sensation, perception and psychopathology.

**PSYC 340. History and Systems of Psychology. (4).**

An overview of the historical foundations of contemporary psychology, including an examination of major systems of thought and theoretical applications of each in the areas of sensation, perception, learning, motivation, emotion, personality and social behavior.

**PSYC 341. Criminal Psychology. (4).**

Students examine theory, research, law and case studies to gain an understanding of the behavior of violent offenders. Research into biological, psychological and social causes is examined and evaluated. Additional topics include the role of the forensic psychologist, the science of profiling, and the definitions and use of the insanity defense. (cross-listed with CRIM 341).

**PSYC 345. Health Psychology. (4).**

Examines the use of behavior therapy procedures in relation to the prevention and treatment of various disorders such as chronic pain, cancer, hypertension, alcoholism, smoking and eating disorders. The use of psychological issues and treatment procedures as they relate to etiology and maintenance of these disorders is emphasized and specialized areas such as clinical behavioral pediatrics, type A behavior and terminal illness are discussed.

**PSYC 401. Social Psychology. (4).**

Studies the influence of personal, group and social systems on individual attitudes and behavior. Includes socialization, social perception, attraction, aggression, prejudice, conformity, altruism and related topics, as well as the discussion of theories, methods and contemporary research.

**PSYC 412. Advanced Research Design and Statistics. (4).**

Advanced Research Design and Statistics is a required course for undergraduate psychology majors seeking a bachelor of science degree in psychology. This course is designed to provide students with an opportunity to build on their knowledge of correlational and experimental research methodologies and basic approaches to statistical analyses. Taught as a seminar course, students will be required to design and implement an original research project which utilizes a mixed methodological approach. In addition, students will be introduced to the theoretical underpinnings of advanced statistical analyses (Prerequisite: PSYC 313).

**PSYC 416. Social Learning Theory: Research and Application. (4).**

Covers the basic principles and procedures of behavior modification and learning theory as they apply to areas such as child and classroom management, behavioral self-change projects, medical psychology, developmental disabilities and mental health settings. Students read current literature in behavior analysis related to the etiology and treatment of addictive behavior disorders, health psychology, anxiety disorders and behavioral disorders.

**PSYC 422. Child Psychopathology. (4).**

This course is designed to give students an introduction to abnormal child psychology. We will study the major disorders typically diagnosed in childhood, including the DSM-IV-TR diagnostic criteria, the current information on the etiology of the disorders, as well as the current research on the most effective assessment and treatment for these disorders.

**PSYC 430. Applied Psychology Practicum. (4).**

Involves the application of psychological principles to personal and social problems of everyday life. Topics include positive psychology, the nature of personality, problem solving, stress, psychological disorders, career development and intimate relationships. Theory is integrated with practical application. Students conduct and present an individual experiment or project.

**PSYC 435. Introduction to Counseling and Psychotherapy. (4).**

An introduction to the theories, problems and techniques of counseling and therapy. Prerequisites: PSYC 222 and PSYC 325.

**PSYC 447. Theories & Practice of Leadership. (4).**

Examines leadership from theoretical, historical and practical perspectives. Includes topics of trait, behavioral and contingency theories; the influence process; management vs. leadership, leadership and followership. Survey of leadership theory and research; characteristics of leaders, theories of leadership origins and psychological and social correlates. Interaction of personal and organizational factors in determining leadership effectiveness. (ADEP only).

**PSYC 450. Sensation and Perception. (4).**

Introduction to the basic sensory and perceptual processes of humans with an emphasis on vision and audition.

**PSYC 482. Selected Topic. (4).**

**PSYC 490. Independent Study. (1-4).**

**PSYC 492. Internship. (1-4).**

(graded P/NC only).

**PSYC 493. Applied Behavior Analysis: a Clinical Practicum. (4).**

The purpose of this course is to help each student acquire outstanding research and clinical skills within the field of applied behavior analysis. Specifically, each student will (a) fully develop an individual area of expertise related to child behavior disorders within the developmentally disabled population; (b) write a scholarly research paper directly related to the student's assigned area of expertise; and (c) learn skills related to conduction of an in-home behavioral analysis with a caseload of assigned families within the Ventura County area. Students will also learn a comprehensive set of skills related to performing an in-depth review of the literature using innovative Internet research strategies. Prerequisite: PSYC 416.

**PSYC 494/494A. Clinical Practicum. (4,4).**

This course has two components - a weekly seminar in a clinical setting and six hours per week in a field placement working with mentally ill or developmentally disabled patients. Students participate on an interdisciplinary treatment team and, under the supervision of the clinical staff, are taught to implement and evaluate behaviorally based clinical interventions with selected patients. Prerequisite: PSYC 222. Recommended: PSYC 416.

**PSYC 494B. Clinical Practicum. (4).**

This course has two components - a weekly seminar in a clinical setting and six hours per week in a field placement working with mentally ill or developmentally disabled patients. Students participate on an interdisciplinary treatment team and, under the supervision of the clinical staff, are taught to implement and evaluate behaviorally based clinical interventions with selected patients. Prerequisite: PSYC 222. Recommended: PSYC 416.

**PSYC 495. Research Practicum (capstone). (4).**

This course offers students the opportunity to work on a major research project or to design and carry out their own research study. Students gain a working knowledge of all aspects of research, which include planning and design of studies, project coordination, administration of measures and data management. Prerequisites: PSYC 312 and PSYC 313; 3.4 Psychology GPA; 16 upper division units in Psychology.

**PSYC 497. Departmental Honors. (4).**

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