

California Lutheran University

Bachelor's Degree for Professionals

ENVIRONMENTAL SCIENCE
GEOLOGY 152 & 152 Lab – SUMMER 2016
May 23 – August 4

Environmental Science encompasses a broad spectrum of integrated sciences that include biology, chemistry, earth/geological sciences, forensic science, physics, and mathematics. Lectures will introduce you to many of the subdivisions of environmental science that include: natural disasters; natural resources; biodiversity; climate change; and forensics. Lab exercises (see separate Lab Syllabus) are designed to provide you with some hands on experience pertinent to the subdivisions of environmental science.

Given the amount of material covered, you should read assignments/lab material and review the powerpoint lecture notes before coming to class---attempting to digest this material for the first time while in class will lead to your falling behind which will be detrimental to your physical and mental well-being---so be prepared.

PROFESSOR: Dr. Richard W. Hurst

Office: ASCI 110 E-Mail: rhurst@callutheran.edu

Office Hours: By e-mail; by appointment; before/after/during class

TEXT: Lecture: Edward A. Keller: *Environmental Geology* (9th Ed., Prentice Hall, 2010)

Lab: D. Foley, G.D. McKenzie, R.O. Utgard: *Investigations in Environmental Geology* (3rd Ed., Prentice Hall, 2009)

DROP DATES:

- June 6th: Last day to add; last day to drop without a “W” or financial penalty
- July 13th: Last day to withdraw without academic penalty

COURSE OBJECTIVES:

- Field-specific knowledge: The content of this course is major specific and includes traditional approaches to studying the interrelationships between geology and the environment.
- Techniques and methodology: The lab will emphasize the standard skills needed to better understand issues in the environmental sciences.
- Critical thinking: You will apply the knowledge learned in lecture to evaluate and resolve issues pertinent to the environment.

LAB: FYI, Labs and your GEOL 152 Lab grade are independent of lecture.

GRADING:

Point Distribution:

Lecture Exam

100 pts

Final Lecture Exam¹ 200 pts. (Thursday, Aug. 4, 1800 – 2000)
Lecture Component **300 pts.**

1. The lecture final is cumulative.

Approximate Letter Grade Scale :

	A 88%	A- 85%
B+ 82%	B 79%	B- 76%
C+ 73%	C 70%	C- 66%
D+ 62%	D 59%	D- 56%

TENTATIVE LECTURE SYLLABUS GEOL 152

<u>THURSDAY:</u>	<u>Tentative Lecture Topic for That Day</u>	<u>Reading</u>
May 26	Introduction and Fundamentals Earth Materials & Processes	Ch. 1 - 2
June 2	Earth Materials & Processes (if needed to finish background) Soils & Environment; Ecology & Geology	Ch. 2 – 4
June 9	Natural Hazards Overview; Rivers & Flooding	Ch. 5 – 6
June 16	Slopes, Slides, & Subsidence; Earthquakes	Ch. 7 – 8
June 23	Earthquakes: Volcanic Activity MIDTERM REVIEW	Ch. 8 – 9
June 30	MIDTERM EXAM (CH. 1 – 8; 1800 – 1930) Volcanic Activity(if needed); Coastal Hazards; Impacts of Extraterrestrial Objects	Ch. 10 - 11
July 7	Impact of Extraterrestrial Objects; Water Resources; Water Pollution	Ch. 11 - 13
July 14	Water Pollution; Mineral Resources & The Environment	Ch. 13 - 14
July 21	Energy and the Environment; Global Climate Change	Ch. 15 - 16
July 28	Geology & Society: Forensics FINAL EXAM REVIEW	Ch. 17
August 4	THURSDAY FINAL LECTURE EXAM, 1800 – 2000	

Missed Exams: Students who have longer term illnesses or family emergencies should contact me regarding their situation for appropriate accommodations regarding exams.

A review sheet for each exam will be provided; an in-class review is held prior to each exam. These are typically done the week prior to an exam.

TEACHING PHILOSOPHY:

My approach to teaching focuses on stressing the most important points in the lecture material. Although a great deal of material is presented, I will stress, sometimes over stress, information you should retain. When exams are

given, you can expect 80-90% of the questions to have been covered in lecture or lab---the remainder of the questions are derived from the reading. I do not grade on attendance BUT if you miss classes, it is your responsibility to catch up either independently or by consulting with your friends in the class.

COURSE REQUIREMENTS (CARNEGIE HOURS) AND DEADLINES:

Number of Hours Outside of Class (Carnegie Hours): You should be spending at least 2 hours per hour of class/lab time reading and reviewing the material presented. This does not include your time preparing for exams, and homework I assign. However, if you remain current each week, you will find preparation time for exams could be reduced. Everyone learns and prepares differently but keeping on top of the material should help you avoid cramming later on.

Specifics with Regard to CLU Mandated Carnegie Hours: Both our lecture schedule (3.5 hours per week) and lab schedule (3.0 hours per week) meet the Carnegie hour requirements that CLU must maintain for accreditation with regard to Instructor – Student Contact Hours for an 11 week, summer term course. The lab actually exceeds the requirement of 2.5 hours per week hence we may finish the lab a bit earlier than expected.

Attendance Policy: You should attend all classes, however, if you miss a class please get the notes from another student and/or contact me so I can bring you up to date. I understand course schedules impact adult learning and I intend to help you avoid falling behind should an unexpected issue arise at work or with your Family. I do not factor in attendance into your grade.

For those interested, my background information, educational training, interests, etc. are provided after the important CLU Policy information that follows.

CLU Student Services & Policies:

Disability Statement:

California Lutheran University is committed to providing reasonable accommodations in compliance with ADA of 1990 and Section 504 of the Rehabilitation Act of 1973 to students with documented disabilities. If you are a student requesting accommodations for this course, please contact your professor at the beginning of the semester and register with the Disability Support Services Coordinator, Wendy Jimenez, for the facilitation and verification of need. The Disability Support Services Coordinator is located in the Center for Student Success Office at 3259 Pioneer Street, and can be contacted by calling 805.493.3878 or emailing wjimene@callutheran.edu

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.

Plagiarism, cheating, unethical computer use and facilitation of academic dishonest are examples of behavior which will result in disciplinary sanctions. Plagiarism includes, but is not limited to:

- word for word copying without using quotation marks or presenting the work as yours
- using the ideas or work of others without acknowledgement
- not citing quoted material. Students must cite sources for any information that is not either the result of original research or common knowledge.

Pearson Library

Pearson Library provides access to scholarly books, journals, ebooks, and databases of full text articles from scholarly journals. To begin using these materials, visit the library web page <http://www.callutheran.edu/library> There are many ways to contact Pearson Library for research assistance, no matter where you are!

- Email Yvonne Wilber (Professionals liaison) at ywilber@callutheran.edu
- General Library email: CLUlibrary@callutheran.edu
- Library main phone: 805.493.3250
- Text us your question: 805.493.3867
- Get more help at: <http://www.callutheran.edu/library/help/>

CLU Writing Center

The Writing Center provides 1:1 writing consultations, in-person and online, with trained undergraduate and graduate writing consultants. We welcome all writing-related projects at any stage of the writing process across the diverse disciplines of study at Cal Lutheran. The Writing Center also hosts writing workshops, provides in-class visits, facilitates writing groups, and offers a writer's studio option for longer, sustained projects. Services suit writers of all levels, including traditional undergraduates, graduate students from all fields, all English language learners, and accomplished scholars alike. All members of the Cal Lutheran community with an @callutheran.edu email address are welcome to make use of our services. For more information, please visit at www.callutheran.edu/writing_center or call 805.493.3257. Please schedule appointments online through MyCLU Blackboard with the yellow "The Writing Center" icon in "Tools," or stop by The Writing Center itself, located in the Darling Collaboration Suite of Pearson Library.

Course Evaluations Statement:

All course evaluations are conducted online. Your feedback is important to us. You will receive an email message reminding you when the website is open for your feedback. The link is: <http://courseval.callutheran.edu>

Student Services:

California Lutheran University is committed to providing reasonable accommodations to students with various documented disabilities (physical, learning, or psychological). If you are a student requesting accommodations for this course, please inform your professor at the beginning of the semester and register with the Coordinator for Students with Disabilities (Pearson Library, Center for Academic and Accessibility Resources, Ext. 3260). I [The Professor] will work closely together with you and your coordinator to provide necessary accommodations.

Standards of Student Conduct Statements:

The following are excerpts from the CLU's student handbook, which can be found on the following link: http://www.callutheran.edu/student_life/student_handbook/

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:

- 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 messages, obscene phone calls.
- Non-Verbal/Visual: Conduct such as derogatory or inappropriate posters, pictures, cartoons, faxes, emails, text or instant messages, or drawings, suggestive objects or pictures, graphic commentaries, leering, obscene gestures.

- 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:

- 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
- Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting the individual; or
- Submission to such conduct is made either explicitly or implicitly a term of condition of an individual's employment or academic programs.

Hate Crimes

- Hate crimes, defined in the California Penal Code, Section 7422.55, are defined as offenses motivated by hatred against a victim or a group of victims based on their actual or perceived race, gender, religion, sexual orientation, ethnicity, and/or disability.
- California Lutheran University is a "diverse scholarly community dedicated to excellence in the liberal arts and professional studies." As such, the University will not tolerate any form of hate crime. Violation of any University policy that also fits within this definition may result in suspension /dismissal from the University.
- In addition, because false accusations regarding harassment, sexual harassment, or hate crimes can have serious effects on the persons accused, any false accusation will likewise result in disciplinary action up to and including the expulsion/dismissal from the University.

The student who feels subject to any of these offenses stated above should report the incident immediately, either verbally or in writing to any one of the following persons:

- Leanne Neilson
Provost/Vice President for Academic Affairs
Administration Building, x3145
- William R. Rosser
Vice President for Student Affairs/Dean of Students
Student Union Building, x3553
- Susan Tolle
Director of Human Resources
Welcome Center Building, x3185

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.

Sexual Misconduct

California Lutheran University does not tolerate any degree of sexual misconduct on or off-campus. We encourage you to report if you know of, or have been the victim of, sexual harassment, misconduct, and/or assault. If you report this to a faculty member, she or he must notify Cal Lutheran's Title IX Coordinator about the basic facts of the incident. More information about your options for reporting can be found at: <http://www.callutheran.edu/title-ix/>

Veterans Resources

If you are a veteran, military member, or a family member of a veteran or military member, please refer to Cal Lutheran's Veterans Resources webpage for important information: <http://www.callutheran.edu/veterans/>. Also, if you are a veteran receiving benefits and you are struggling in a class, you most likely qualify for free tutoring. Please contact the Veterans Coordinator, Jenn Zimmerman, veterans@callutheran.edu or 805.493.3648, for more information.

Help Desk

Students may contact the Help Desk about telephone, network, wireless network, software questions password problems, hardware problems, and general consultation (i.e. you cannot log into your MyCLU portal, or you are having problems with Blackboard). Please email specific details about your problems to helpdesk@callutheran.edu, click on the following link for more information http://www.callutheran.edu/iss/technology_services/helpdesk.php or call: 805.493.3698

Final Note

This syllabus is subject to change. Every effort will be made to alert students to changes that occur in a timely manner.

ENVIRONMENTAL SCIENCE GEOLOGY 152 Lab – SUMMER 2016 May 23 – August 4

Environmental Science encompasses a broad spectrum of integrated sciences that include biology, chemistry, earth/geological sciences, forensic science, physics, and mathematics. Lab exercises are designed to provide you with some hands on experience pertinent to the subdivisions of environmental science.

Given the amount of material covered, you **MUST** read lab material before coming to class---attempting to digest this material for the first time while in class will lead to your falling behind which will be detrimental to your physical and mental well-being---so be prepared. The material you are responsible for turning in should be printed out from our Blackboard site and brought to lab. Although most of the questions come from the lab text, you will not have to tear out pages from the lab text.

Lab exercises are on Blackboard and must be printed out prior to lab!

PROFESSOR: Dr. Richard W. Hurst

Office: ASCI 110 E-Mail: rhurst@callutheran.edu

Office Hours: By e-mail, appointment, or before/during/after class

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- Techniques and methodology: The lab will emphasize the standard skills needed to better understand issues in the environmental sciences.
- Critical thinking: You will apply the knowledge learned in lecture to evaluate and resolve issues pertinent to the environment.

LAB: Labs are independent of lecture.

GRADING:

Lab Examinations (2 @ 100 pts. Each) 200 pts.
 Lab Final (In class ; last lab date) 200 pts.

Approximate Letter Grade Scale :

	A 88%	A- 85%
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C+ 73%	C 70%	C- 66%
D+ 62%	D 59%	D- 56%

TENTATIVE LAB SYLLABUS

<u>DATE:</u>	<u>Scheduled Laboratory Topic for That Day</u>	<u>Reading in Text</u>
05/28	Introduction and Fundamentals Laboratory 1 & 2: Earth Materials---Rocks & Minerals	----- Lab Exer. 1 - 2
06/04	Laboratory 3: Maps & Calculations Laboratory 4: Volcanoes & Volcanic Hazards	Lab Exer. 3 Lab Exer. 4
06/11	Laboratory 5: Earthquakes EXAM 1 REVIEW (MINERALS, ROCKS, & MAPS)	Lab. Exer. 6
06/18	LAB EXAM 1: MINERALS, ROCKS, & MAPS Laboratory 6: Coastal Hazards	Lab Exer. 11
06/26	Laboratory 7: Lake & River Contamination EXAM 2 REVIEW (VOLCANOES, EARTHQUAKES & COASTAL HAZARDS)	Lab Exer. 14
07/02	LAB EXAM 2: VOLCANOES, EARTHQUAKES & COASTAL HAZARDS	
07/09	Laboratory 8: Sustainability & Climate Change Laboratory 9: Landslides	Lab Exer. 16 Lab Exer. TBD
07/16	Laboratory 10: Biodiversity	Handout
07/23	FINAL LAB EXAM REVIEW PERIOD	

Laboratory Exercises and Due Dates:

Given that most of exercises are lengthy, you will be required to answer only selected questions from each exercise. The required lab exercises are posted on our course Blackboard site. Lab exercises will not be graded per se given the Department Assistant (DA) and I assist you in each lab. However, I will review your lab exercises for completeness and accuracy so they will be turned in to insure you understood the exercise. The important points regarding lab exercises are as follows:

IMPORTANT POINTS ON DUE DATES:

1. **For full credit and to have your final grade considered for a one-half grade increase (e.g. a B becomes a B+), completed laboratory exercises must be turned in by the following lab or earlier;**
2. **Labs turned in within two weeks by that time will be penalized; three late labs will preclude your final grade from being considered for a one-half grade increase; and more than three late labs will result in your final grade being penalized by one-half grade.**

Missed Exams:

Students who have longer term illnesses or family emergencies should contact me regarding their situation for appropriate accommodations regarding quizzes or exams. Those participating in athletic competition should make arrangements with me prior to their competition in order to arrange for a mutually convenient time to take exams. Failure to do so for scheduled exams will be treated as a failure to take the exam, resulting in no credit being given for the exam.

TEACHING PHILOSOPHY:

My approach to teaching focuses on stressing the most important points in the material. Although a great deal of material is presented, I will stress, sometimes over stress, information you should retain. When exams are given, you can expect 80-90% of the questions to have been covered in lab---the remainder of the questions are derived from the reading. If you attend labs regularly, get notes from classmates when you miss class, and put in the effort, you should do fine. I do not grade on attendance BUT if you miss classes, it is your responsibility to catch up either independently or by consulting with your friends in the class.

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ACADEMIC HONESTY (DISHONESTY):

In your online Student Handbook there are statements on Academic Honesty and Dishonesty and the consequences of such actions. For the purposes of this class, these policies pertain to cheating on quizzes and exams, and not doing your own work on homework and lab assignments. Please review the appropriate section in your Student Handbook.

PLEASE REFER TO THE LECTURE SYLLABUS ABOVE FOR MORE DETAILED INFORMATION ON CLU ACADEMIC AND BEHAVIOR POLICIES.

About the Professor: Richard W. Hurst, PhD

Origins: Westbury, NY (~ 20 miles east of New York City on Long Island)

Education: B.S. Earth & Space Science (Minors in Mathematics, Chemistry)
State University of New York, Stony Brook (1970)
Ph.D. Geology & Isotope Geochemistry, UC, Los Angeles (1975)

Academia: Prof. of Geology & Geochemistry, California State University, Los Angeles
(CSULA; 1978 - 2006)
Professor Emeritus, CSULA, 2007 – Present
Adjunct Prof. of Geology & Geochemistry, California Lutheran University (2007 – Present)

- Examples of Courses Taught:
Lower Division/General Education---
Geology; Natural Disasters; Oceanography; Astronomy
Upper Division---
Geochemistry; Mineralogy; Optical Mineralogy; Petrology; Planetary Geology
and Astronomy ; Contaminant Hydrogeology; Environmental Forensics
Graduate---
Isotope Geochemistry; Monterey Formation (Special Topic Course); Mineral
Resources; Short Term Chronometers; Master's Degree Advisor
- Hobbies---
Hiking with Wife and Dog
Acoustic Guitar
Martial Arts: Nidan (2nd Degree) Black Belt---Ninpo Taijutsu
Ikkyu (1st Degree) Brown Belt in Judo, Aikido, Tomiki Jiu Jitsu (Judo
Team, SUNY, Stony Brook)
Sankyu (3rd Degree) Brown Belt in Kenpo Karate, Taekwondo;