CoSM Class Syllabus / Policy

2016 / Spring
GOL 450.001
Cave & Karst Systems

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Office: E.L. Miller Science 309
Office Hours: M-W 11:00 – 12:00; TW 14:00 – 17:00 (or by appointment)
Class meeting time and place: T 19:00 – 21:30; TBA
Text and Materials: Cave Geology, Art Palmer (2007)

Course Description:
Cave and Karst Systems (GOL 450) – Three semester hours, three hours lecture per week. This course will explore the underground world of caves as students are introduced to the complexities of karst systems, including the geologic and hydrologic controls on porosity evolution in soluble rocks. Students will learn the characteristics and behavior of fluid flow through multi-permeability systems as it applies to karst aquifers and mineral deposits. Students will be introduced to the unique environmental and engineering concerns associated with karst terrains and groundwater resources.

Program Learning Outcomes:
There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum course and / or a service course.

General Education Core Curriculum Objectives/Outcomes:
The objective of Cave and Karst Systems is to gain an understanding of the complex hydrogeologic processes associated with the development of cavernous porosity and associated secondary mineralization, in order to develop best management practices in karst terrains.

Student Learning Outcomes:
The student is expected to understand and apply the following concepts of cave and karst systems:

1. Identify and characterize geomorphic karst features.
2. Characterize and differentiate between eogenic, hypogenic and epigenic speleogenesis.
3. Describe the behavior of groundwater in karst regions.
4. Identify the origin and variability of secondary karst mineralization.
5. Identify the unique environmental and ecological issues associated with karst terrains.

Course Requirements:
Cave and Karst Systems (GOL 450) is designed to provide an overview of formation, evolution and natural resources associated with karst systems. Geology students entering the work place need to have an understanding of the karst systems because almost 25% of the world’s population live in karst regions and rely on the associated karst groundwater resources. Course grade will be based on examinations. See section on Grading Policy below. Student learning in the lecture section will be evaluated through three examinations. Tentative examination schedule:

- Midterm (Tuesday, 08 March 2016) – Exam will include topics covered in class since the beginning of the semester, including basic concepts associated with sedimentology, hydrogeology and geochemistry in karst terrains.
• Final (Tuesday, 10 May 2016) – Comprehensive final exam that includes all topics covered in course, with an emphasis on pseudokarst and karst resources.

Course Calendar:
Tentative schedule of topics to be covered in GOL 450 include:

NOTE: associated readings for each lecture in parentheses.

- 19 Jan 16 – Fieldwork – Class Cancelled
- 26 Jan 16 – Introduction to caves and karst with overview of global occurrences (Ch. 1, 2)
- 02 Feb 16 – Sedimentology and karst rocks (Ch. 3)
- 09 Feb 16 – Hydrogeology of karst terrains (Ch. 4)
- 16 Feb 16 – Geochemistry of karst terrains (Ch. 5)
- 23 Feb 16 – Speleogenesis and cave morphologies of eogenetic rocks / coastal zones (Ch. 6, 7, 8, 9)
- 01 Mar 16 – Speleogenesis and cave morphologies of hypogene systems (Ch. 6, 7, 8, 9)
- 08 Mar 16 – Midterm
- 15 Mar 16 – Spring Break – No Class
- 22 Mar 16 – Class cancelled for South Central Geological Society of America Annual Meeting
- 29 Mar 16 – Speleogenesis and cave morphologies of epigenic systems (Ch. 6, 7, 8, 9)
- 05 Apr 16 – Speleothems and secondary cave minerals (Ch. 10, 12)
- 12 Apr 16 – Deep Karst Conference – Class Cancelled
- 19 Apr 16 – Pseudokarst associated with glaciers and volcanism (Ch. 11)
- 26 Apr 16 – Pseudokarst associated with non-karstic, sedimentary rocks (n/a)
- 03 May 16 – Natural resources in karst terrains (Ch. 15)
- 10 May 16 – Final

Grading Policy:
• Lecture grades will consist of 2 exams, each counting 50% of the class grade.
• Total points: 50% (Midterm) + 50% (Final) = 100%
• Overall Grade Scale: >90% = A ; 80-89.9% = B ; 70-79.9% = C ; 60-69.9% = D ; 60% = F

Exams will vary but may include any or all of the following sections: 1) multiple choice; 2) true / false questions; 3) fill in the blank questions; 4) short answer questions; 5) figure illustration; 6) short essay questions. All exams will take place in room 335 unless otherwise stated in class.

Cell phones, calculators, and other electronic devices are NOT permitted during exams. If you are using them in an exam, it will be assumed that you are cheating and you will receive a grade of “0” on that exam.

Exam scheduling conflicts for officially sanctioned university reasons will be accommodated at a different time or date. In the event of such conflicts, you must inform me at least one week prior to the exam to reschedule your exam.

Make-up exams are only given in documented cases of official university activities, illnesses or deaths in the family. If the final is missed for a legitimate excuse, an “Incomplete” will be given at the final and a make-up exam can be taken at the beginning of the next semester. Make-up exams will be different than the regular class exam and may be entirely essay format.

Attendance Policy:
• Daily attendance will be taken for university accounting purposes. Success in this course will reflect the level effort you put into the course.
• Be prepared for lectures by reading the material to be covered in lecture prior to attending class. Questions are encouraged and welcome – do not hesitate to ask questions in class.
• No electronic devices are needed during lectures for this class, including cell phones and calculators. Please turn them off and do not use them in class. Ringing phones and beeping electronics disturb others in the class and interrupt lectures. If you interrupt class with your personal electronic devices, you will be asked to leave for the day.
• If you are late to class, please seat yourself quietly. Try not to be late because it interrupts others in the class. If you need to use the restroom or become ill, please excuse yourself from the lecture quietly.
• If you need to study for another class, do it elsewhere. The classroom is not the place to sleep either. Basically, refrain from activities in lectures that will distract or disturb the other students in the room, because you are all paying for the class and most people want to get what they are paying for.

Academic Integrity (A-9.1)
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.
Definition of Academic Dishonesty: Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

Withheld Grades Semester Grades Policy (A-54)
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.
The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

Students with Disabilities
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.