APPLIED GEOPHYSICS FIELD CLASS
GEOLOGY 437
SPRING 2016

PROFESSOR: JOHN L. SEXTON
TEXT/REFERENCE: AN INTRODUCTION TO GEOPHYSICAL EXPLORATION
BY PHILIP KEARY, MICHAEL BROOKS, AND IAN HILL
3rd EDITION 2002 (OR LATER)
BLACKWELL PUBLISHING

OFFICE: PARKINSON LAB ROOM 210
OFFICE HOURS: T AND TH: 10-12
PHONE: 618-453-3351
EMAIL: sexton@geo.siu.edu
CREDIT HOURS: 3

PROJECT REPORTS: 50% OF COURSE GRADE
ATTENDANCE/PARTICIPATION IN FIELD TRIPS (UP TO 10) IS REQUIRED: 50% OF COURSE GRADE

COURSE DESCRIPTION: PRACTICE OF GEOPHYSICS AS APPLIED TO SELECTED TOPICS FROM EXPLORATION AND DEVELOPMENT OF NATURAL RESOURCES INCLUDING OIL, COAL, MINERALS AND GROUNDWATER. OTHER APPLICATIONS OF GEOPHYSICS MAY INCLUDE STUDY OF ARCHAEOLOGICAL AND ENVIRONMENTAL SITES, AS WELL AS CRUSTAL STUDIES OF EARTHQUAKE ZONES AND METEORITE IMPACT AREAS. APPLIED GEOPHYSICAL METHODS STUDIED MAY INCLUDE SEISMIC REFRACTION, REFLECTION, AND SURFACE WAVES, AND GRAVITY AND MAGNETIC SURVEYING. ADDITIONAL TOPICS MAY BE SELECTED FROM ELECTRICAL RESISTIVITY, ELECTROMAGNETIC AND GEORADAR SURVEYING AND GEOPHYSICAL WELL LOGGING. SELECTED TOPICS WILL VARY FOR DIFFERENT SEMESTERS. BASIC THEORY OF GEOPHYSICS FOR METHODS TO BE USED WILL BE REVIEWED AND DEVELOPED IF REQUESTED BY THE CLASS.

UP TO TEN ONE DAY FIELD TRIPS WILL BE CONDUCTED ON SELECTED SATURDAYS. FIELD TRIPS WILL INVOLVE USE OF GEOPHYSICAL INSTRUMENTS FOR DATA COLLECTION. SOME SATURDAY MORNINGS WILL BE USED FOR COMPUTER AIDED INTERPRETATION OF THE COLLECTED DATA. ALSO DEPENDING ON AVAILABILITY, FIELD TRIPS MAY BE MADE TO PROFESSIONAL GEOPHYSICAL SERVICE COMPANIES CONDUCTING DATA ACQUISITION IN THE AREA. ALSO, IF AVAILABLE, WE WILL VISIT AN OIL DRILLING RIG IN OPERATION. DATES FOR THE FIELD TRIPS WILL DEPEND ON THE WEATHER.

ABSENCES FROM CLASSES AND FIELD TRIPS WILL AFFECT THE STUDENTS GRADE UNLESS THE ABSENCE HAS BEEN PREVIOUSLY APPROVED. IF A STUDENT IS ABSENT DUE TO ILLNESS THEN INFORMATION FROM STUDENT’S DOCTOR MUST BE PROVIDED. OTHERWISE STUDENTS MUST ATTEND ALL SCHEDULED ACTIVITIES.

TENTATIVE SCHEDULE (DEPENDING ON WEATHER)

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<tr>
<th>SCHEDULE FOR SATURDAY FIELD TRIPS AND SATURDAY COMPUTER LABS</th>
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Emergency Procedures:
Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on BERT's website at www.bert.siu.edu, Department of Safety's website www.dps.siu.edu (disaster drop down) and in Emergency
Response Guideline pamphlet. Know how to respond to each type of emergency.

**IMPORTANT DATES**

- **Semester Class Begins**: 01/19/2016
- **Last day to add a class (without instructor permission)**: 01/24/2016
- **Last day to withdraw completely and receive a 100% refund**: 01/31/2016
- **Last day to drop a course using Sakhicare**: 04/03/2016
- **Last day to file diploma application (for those to appear in Commencement program)**: 03/12/2016
- **Final Examinations**: 05/05–05/13/2016

Note: For outreach, learn more about course drop/add date, visit Registrar’s Academic website: [http://register.siu.edu/](http://register.siu.edu/)

**SPRING SEMESTER HOLIDAYS**

- Martin Luther King Jr.’s Birthday Holiday 01/18/2016
- Spring Break 03/11–03/20/2016

**WITHDRAWAL POLICY – Undergraduate only**

Students who officially register for a session may not withdraw merely by stopping attendance. An official withdrawal form needs to be initiated by the student and processed by the University. For the proper procedures to follow when dropping courses and when withdrawing from the University, please visit [http://Registrar.siu.edu/catalog/undergraduatecatalog.html](http://Registrar.siu.edu/catalog/undergraduatecatalog.html)

**INCOMPLETE POLICY – Undergraduate only**

An INC is assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments. An INC must be changed to a completed grade within one semester following the term in which the course was taken, or graduation, whichever occurs first. The student must complete the course within the time period designated, that is, by no later than the end of the semester following the term in which the course was taken, or after graduation, whichever occurs first, the incomplete will be converted to a grade of F and the grade will be computed in the student’s grade point average. For more information please visit: [http://Registrar.siu.edu/grades/incomplete.html](http://Registrar.siu.edu/grades/incomplete.html)

**REPEAT POLICY**

An undergraduate student may, for the purpose of raising a grade enrolled in a course for credit no more than two times (two total enrollments) unless otherwise noted in the course description. For students receiving a letter grade of A, D, or F in an open enrollment course, the maximum repetition must occur at Southern Illinois University Carbondale. Only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. See [full policy at [http://Registrar.siu.edu/catalog/undergraduatecatalog.html](http://Registrar.siu.edu/catalog/undergraduatecatalog.html)]

**GRADUATE POLICIES**

Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please visit [http://artschool.siu.edu/dept-siugr-plan/catalog/index.html](http://artschool.siu.edu/dept-siugr-plan/catalog/index.html)

**DISABILITY POLICY**

Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides centralized coordination and referral services. To utilize DSS services, students must contact the DSS to open cases. The process involves interviews, reviews of student documented information, and completion of Disability Accommodation Agreements. [http://disabilityservices.siu.edu/](http://disabilityservices.siu.edu/)

**PLAGIARISM**

Student Conduct Code: [http://sr.siu.edu/student_conduct_code/](http://sr.siu.edu/student_conduct_code/)

Guidelines for Faculty: [http://pvccas.siu.edu/academic/Plagiarism/GuidelinesForFaculty%5C0%5C0%5C0.pdf](http://pvccas.siu.edu/academic/Plagiarism/GuidelinesForFaculty%5C0%5C0%5C0.pdf)

**MORRIS LIBRARY HOURS**

[http://www.lib.siu.edu/about](http://www.lib.siu.edu/about)

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**SAFETY AWARENESS FACTS AND EDUCATION**

Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kind of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: [http://safe.siu.edu](http://safe.siu.edu)

**SALUKI CARES**

The purpose of Saluki Care is to develop, facilitate, and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students, and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For information on Saluki Care, call (618) 453-5714, or visit [salukicare@siu.edu](mailto:salukicare@siu.edu)

**EMERGENCY PROCEDURES**

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**INCLUSIVE EXCELLENCE**

SIU contains people from all walks of life, from many different cultures and sub-cultures, and representing all sorts of society, nationalities, ethnicities, lifestyles, and affiliations. Learning from and working with people who differ is an important part of education as well as an essential preparation for any career. [For more information please visit: [http://www.inclusiveexcellence.siu.edu](http://www.inclusiveexcellence.siu.edu)]

**LEARNING AND SUPPORT SERVICES**

Help is within reach. Learning support services offers free tutoring on campus and Math Labs. To find more information please visit the Center for Learning and Support Services website. [Tutoring: [http://interine.siu.edu](http://interine.siu.edu)]


**WRITING CENTER**

The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit [http://write.siu.edu](http://write.siu.edu)

**AFFIRMATIVE ACTION & EQUAL OPPORTUNITY**

Our office’s main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit: [http://diversity.siu.edu](http://diversity.siu.edu)

**Additional Resources Available:**

- **SALUKINET**: [https://salukinet.siu.edu/cp/home/displayLogin](https://salukinet.siu.edu/cp/home/displayLogin)
- **ADMISSIONS**: [http://admissions.siu.edu](http://admissions.siu.edu)
- **PROVOST & VICE CHANCELLOR**: [http://pvccas.siu.edu](http://pvccas.siu.edu)
- **SIU ONLINE**: [http://online.siu.edu](http://online.siu.edu)

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