GEOL 218: SEMINAR IN GEOPHYSICS

In Workflow

1. GEOL Committee Chair (amy.wagner@csus.edu)
2. GEOL Chair (cornwell@csus.edu)
3. NSM College Committee Chair (tsk@csus.edu)
4. NSM Dean (datwyler@csus.edu)
5. Academic Services (torsetj@csus.edu;%20cnewsome@skymail.csus.edu)
6. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
7. Dean of Undergraduate (james.german@csus.edu;%20celena.showers@csus.edu)
8. Dean of Graduate (cnewsome@skymail.csus.edu)
9. Catalog Editor (torsetj@csus.edu)
10. Registrar's Office (wlindsey@csus.edu)
11. PeopleSoft (PeopleSoft@csus.edu)

Approval Path

1. Mon, 01 Mar 2021 18:44:44 GMT
   Amy Wagner (amy.wagner): Approved for GEOL Committee Chair
2. Mon, 01 Mar 2021 18:49:26 GMT
   Kevin Cornwell (cornwell): Approved for GEOL Chair
3. Thu, 04 Mar 2021 00:08:14 GMT
   Thomas Krabacher (tsk): Rollback to GEOL Chair for NSM College Committee Chair
4. Thu, 04 Mar 2021 15:11:04 GMT
   Kevin Cornwell (cornwell): Rollback to GEOL Committee Chair for GEOL Chair
5. Tue, 16 Mar 2021 18:57:52 GMT
   Amy Wagner (amy.wagner): Approved for GEOL Committee Chair
6. Tue, 16 Mar 2021 20:57:28 GMT
   Kevin Cornwell (cornwell): Approved for GEOL Chair
7. Wed, 17 Mar 2021 22:15:20 GMT
   Thomas Krabacher (tsk): Approved for NSM College Committee Chair
8. Wed, 17 Mar 2021 22:18:41 GMT
   Shannon Datwyler (datwyler): Approved for NSM Dean

Date Submitted: Fri, 26 Feb 2021 23:01:33 GMT

Viewing: GEOL 218 : Seminar in Geophysics

Last edit: Tue, 16 Mar 2021 18:57:44 GMT

Changes proposed by: Steven Skinner (217361587)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Steven Skinner	Steven.Skinner@CSUS.edu	916-278-4331

Catalog Title:
Seminar in Geophysics

Class Schedule Title:
Seminar in Geophysics

Academic Group: (College)
NSM - Natural Sciences & Mathematics

Academic Organization: (Department)
Geology

Will this course be offered through the College of Continuing Education (CCE)?
No

Catalog Year Effective:
Fall 2022 (2022/2023 Catalog)

Subject Area: (prefix)
GEOL - Geology

Catalog Number: (course number)
218

Course ID: (For administrative use only.)
135451

Units:
3

In what term(s) will this course typically be offered?
Fall, Spring

Does this course require a room for its final exam?
Yes, final exam requires a room

Does this course replace an existing experimental course?
No

This course complies with the credit hour policy:
Yes

Justification for course proposal:
Justification for all Geology graduate course proposals:
The Geology department has a small graduate program (approximately 12 students admitted per year) that tends to be split between a 'rock' and 'water' focus. Students take 9 units of core courses that are scheduled to be taken over two years. The department offers two graduate electives each semester, one with more of a rock focus and another with more of a water focus so students have graduate electives that are relevant to their primary area of research.

The Geology department has a robust undergraduate program, teaches a number of general education mega-sections, and has faculty with active research programs (and, thus, course release and buyout). Therefore, having tenured and tenured track faculty with available WTU to teach the graduate courses has been challenging. Additionally, the graduate courses are not listed as being repeatable for credit, further limiting the options that can be offered each semester.

In an effort to provide more flexibility for our graduate students to be taught by our own Geology faculty and maintain a level of continuity, we are proposing to move towards more general course descriptions and offer many of the courses as 'Seminar in ....' and change all the courses to be repeatable for credit. (See attached email from OGS regarding this and financial aid). It is likely that graduate students will not end up repeating any courses because more broad course descriptions will provide the flexibility for more faculty to teach each course. Offering our graduate courses in this way will benefit the graduate students in our department by ensuring 1) a variety of elective topics are offered each semester, 2) tenured and tenure-track faculty are teaching the courses, and 3) the ability to repeat a course for credit without having to petition for an exception with OGS.

GEOL 218 course specific justification:
Broadens course title, course description, and learning objectives; specific course content to be determined by the instructor and specifically outlined in the course syllabus.

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)
Advanced study of geophysics. The focus of this course is the quantitative analysis of physical processes and the physical properties of the Earth at both local and global scale. Course may include field measurements in addition to analytical and numerical modeling. Topics covered in the course may include heat flow, seismology, gravity, magnetics, geodesy, plate tectonics, borehole techniques, and near surface exploration.

Are one or more field trips required with this course?
Yes

Fee Course?
No

Is this course designated as Service Learning?
No

Does this course require safety training?
No

Does this course require personal protective equipment (PPE)?
No

Course Note: (Note must be a single sentence; do not include field trip or fee course notations.)
May be taken for credit multiple times if covering different topics.

Does this course have prerequisites?
Yes

Prerequisite:
PHYS 5B or PHYS 11C, GEOL 112, graduate-level status in geology, or instructor permission.

Prerequisites Enforced at Registration?
No

Does this course have corequisites?
No

Graded:
Letter

Approval required for enrollment?
No Approval Required

Course Component(s) and Classification(s):
Laboratory
Seminar

Laboratory Classification
CS#16 - Science Laboratory (K-factor=2 WTU per unit)
Laboratory Units
1

Seminar Classification
CS#05 - Seminar (K-factor=1 WTU per unit)
Seminar Units
2

Is this a paired course?
No

Is this course crosslisted?
No

Can this course be repeated for credit?
Yes
How many times can the course be taken (not including first time passed)?
4

Total credits allowed (including first time passed)
12

Can the course be taken for credit more than once during the same term?
No

Description of the Expected Learning Outcomes: Describe outcomes using the following format: 'Students will be able to: 1), 2), etc.'
Students will be able to:
1) Collect, reduce, and interpret geophysical data
2) Critically evaluate primary geophysical literature
3) Utilize geophysical methods to analyze the structure of the Earth
4) Solve geological problems using geophysical methods

Attach a list of the required/recommended course readings and activities:

Geol218_SeminarInGeophysicsReading.pdf

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above.

student presentations (ELO 2), student papers (ELO 4), laboratory assignments (ELO 1,3), homework (ELO 1)

Is this course required in a degree program (major, minor, graduate degree, certificate?)

No

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?

No

Will there be any departments affected by this proposed course?

No

I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.

I/we agree

University Learning Goals

Graduate (Masters) Learning Goals:

Critical thinking/analysis
Communication
Disciplinary knowledge
Research (optional)

Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

Is this a Graduate Writing Intensive (GWI) course?

No

Please attach any additional files not requested above:

Course repeat OGS.pdf

Reviewer Comments:

Thomas Krabacher (tsk) (Thu, 04 Mar 2021 00:08:14 GMT): Rollback: Proposal being rolled back in order for dept. to check on (1) any issues with repeating a course with same number for grade; (2) Any financial aid implications for repeating a course with same number; (2) advisability of making the justification more student-oriented. Amy W. has the details, if needed.

Kevin Cornwell (cornwell) (Thu, 04 Mar 2021 15:11:04 GMT): Rollback: Amy, this is for you to look at again...

Key: 2399