Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500). See [http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/] for a complete description of the rules governing curriculum & course changes.

**TRIAL COURSE OR NEW COURSE PROPOSAL**

**SUBMITTED BY:**

<table>
<thead>
<tr>
<th>Department</th>
<th>College/School</th>
<th>CNSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology and Geophysics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Prepared by:**

<table>
<thead>
<tr>
<th>Email Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:psdruckenmiller@alaska.edu">psdruckenmiller@alaska.edu</a></td>
</tr>
</tbody>
</table>

**Phone:** 474-6954

**Faculty Contact:** Patrick Druckenmiller

**1. ACTION DESIRED**

(CHECK ONE):

- Trial Course
- New Course

**2. COURSE IDENTIFICATION:**

<table>
<thead>
<tr>
<th>Dept</th>
<th>Course #</th>
<th>No. of Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOS</td>
<td>317</td>
<td>2</td>
</tr>
</tbody>
</table>

Justify upper/lower division status & number of credits:

This course requires a reasonable command of basic geoscience knowledge (see prerequisites) and other more advanced skills (e.g., ability to read scientific papers). It is also an important basis for 400 level (and up) courses in paleontology. It is expected that this course will be taken primarily by second and third-year students. The course has one lecture per week and one lab/activity per week.

**3. PROPOSED COURSE TITLE:**

Paleontological Research and Laboratory Methods

**4. To be CROSS LISTED?**

- YES/NO

If yes, Dept: Course #

(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

**5. To be STACKED?**

- YES/NO

If yes, Dept: Course #

**6. FREQUENCY OF OFFERING:**

Spring (Even-numbered years)

Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or As Demand Warrants

**7. SEMESTER & YEAR OF FIRST OFFERING**

(AY2011-12 if approved by 3/1/2012; otherwise AY2012-13)

Spring 2014

**SEP 26 2011**

**8. COURSE FORMAT:**

Note: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

- Lecture: 1
- Lab: 2
- Practicum: 3
- 6 weeks to full semester

**9. CONTACT HOURS PER WEEK:**

<table>
<thead>
<tr>
<th>1 LECTURE hours/weeks</th>
<th>3 LAB hours/week</th>
<th>5 PRACTICUM hours/week</th>
</tr>
</thead>
</table>

Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See [http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/guidelines-for-computing/] for more information on number of credits.

**OTHER HOURS (specify type):** n/a

**10. COMPLETE CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible):**

GEOS F3170 Paleontological Research and Laboratory Methods

2 Credits Offered Spring Even-numbered years

Introduction to research methods in paleontology. This course covers the fundamentals of fossil preparation, digital techniques for imaging and analyzing paleontological data, and discusses the current theory and practice of curation of fossil material in a museum setting. Common techniques for presenting research results to a scientific and public...
11. COURSE CLASSIFICATIONS: Undergraduate courses only. Consult with CLA Curriculum Council to apply S or H classification appropriately; otherwise leave fields blank.

H = Humanities  S = Social Sciences

Will this course be used to fulfill a requirement for the baccalaureate core? If YES, attach form.

YES: X  NO: 

IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, Format 6  W = Writing Intensive, Format 7  Natural Science, Format 8

12. COURSE REPEATABILITY:

Is this course repeatable for credit? YES  NO: X

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit?

If the course can be repeated for credit, what is the maximum number of credit hours that may be earned for this course?

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?

13. GRADING SYSTEM: Specify only one. Note: Later changing the grading system for a course constitutes a Major Course Change.

LETTER: X  PASS/FAIL: 

14. PREREQUISITES

GEOS 101, GEOS 112, or permission of the instructor

These will be required before the student is allowed to enroll in the course.

15. SPECIAL RESTRICTIONS, CONDITIONS

n/a

16. PROPOSED COURSE FEES

$95.00

Has a memo been submitted through your dean to the Provost for fee approval?

Yes/No

Yes

17. PREVIOUS HISTORY

Has the course been offered as special topics or trial course previously?

Yes/No

N

If yes, give semester, year, course #, etc.: 

18. ESTIMATED IMPACT

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

A teaching assistant may be needed if enrollment warrants. Most of the teaching specimens used in lab have already been purchased or the specimens are available from the Earth Science Collection at the Museum. Lectures and labs will be conducted in the Museum classroom. The course instructor is the Earth Science Curator at the Museum and has full access to specimens and instructional space needed to teach the course.

19. LIBRARY COLLECTIONS

Have you contacted the library collection development officer (kljen@alaska.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

No  Yes: X
20. IMPACTS ON PROGRAMS/DEPTS
What programs/departments will be affected by this proposed action?
Include information on the Programs/Departments contacted (e.g., email, memo)

| This new course will be required for the Paleontology Option in the geosciences currently being developed at UAF. The course will affect, and is most likely to be taken by students in the Departments of Geology and Geophysics and Biology and Wildlife. |

21. POSITIVE AND NEGATIVE IMPACTS
Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.

| The course will have a positive impact in that it strengthens the Paleontology Option curriculum and provides another oral-intensive course option to students in the department. The course has a small amount of overlap with GEOS F475 – Presentation Techniques in the Geosciences – but will primarily provide content not currently available through any other individual course. Because the course is lab-intensive, there is a course laboratory fee to cover supplies needed for fossil preparation, scientific illustration, and poster printing. |

JUSTIFICATION FOR ACTION REQUESTED
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

| As part of a department-wide initiative in Geology and Geophysics, new discipline-specific options are being developed to increase undergraduate recruitment and enrollment. Paleontological Research and Laboratory Methods will be integral to the proposed Paleontology Options. It fills a gap in providing paleontology-specific instruction in research methods that are either not currently available at UAF or only available as part of several other existing courses. The course also emphasizes the importance of museum collections and laboratories in research and takes advantage of an active paleontological research collection at the University of Alaska Museum, where lectures and labs are held. Full access to its collections, facilities, and computerized is available through the course instructor, who is the museum Earth Science Curator. The course is simultaneously being proposed for a core oral-intensive designator. At present, students wishing to fulfill the oral-intensive requirement have only two other departmental courses from which to choose (GEOS F4630 – Glacial and Periglacial Geology and GEOS F475 W, O – Presentation Techniques in the Geosciences). |

APPROVALS: Add additional signature lines as needed.

| Signature, Chair, Program/Department of: Geology + Geophysics | Date 9/20/11 |
| Signature, Chair, College/School Curriculum Council for: | Date 9/20/11 |
| Signature, Dean, College/School of: | Date Oct 3, 2011 |

Signature of Provost (if applicable)
Offerings above the level of approved programs must be approved in advance by the Provost.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

| Signature, Chair | Date |

Faculty Senate Review Committee: __Curriculum Review __GAAC
___Core Review ___SADAC

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)

Signature, Chair, Program/Department of: ____________________________ Date: ____________

Signature, Chair, College/School Curriculum Council for: ________________ Date: ____________

Signature, Dean, College/School of: _______________________________ Date: ____________
ATTACH COMPLETE SYLLABUS (as part of this application). Note: The guidelines are online: http://www.uaf.edu/uaflgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/
The Faculty Senate curriculum committees will review the syllabus to ensure that each of the items listed below are included. If item missing or unclear, the proposed course (or changes to it) may be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES
During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout the semester, this document will contain the following information (as applicable to the discipline):

1. Course information:
   ☐ Title, ☐ number, ☐ credits, ☐ prerequisites, ☐ location, ☐ meeting time
   (make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) information:
   ☐ Name, ☐ office location, ☐ office hours, ☐ telephone, ☐ email address.

3. Course readings/materials:
   ☐ Course textbook title, ☐ author, ☐ edition/publisher.
   ☐ Supplementary readings (indicate whether ☐ required or ☐ recommended) and
   ☐ any supplies required.

4. Course description:
   ☐ Content of the course and how it fits into the broader curriculum;
   ☐ Expected proficiencies required to undertake the course, if applicable.
   ☐ Inclusion of catalog description is strongly recommended, and
   ☐ Description in syllabus must be consistent with catalog course description.

5. ☐ Course Goals (general), and (see #6)

6. ☐ Student Learning Outcomes (more specific)

7. Instructional methods:
   ☐ Describe the teaching techniques (e.g. lecture, case study, small group discussion, private instruction, studio instruction, values clarification, games, journal writing, use of Blackboard, audio/video conferencing, etc.).

8. Course calendar:
   ☐ A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has thought through and will not be making it up on the fly (e.g. it is not adequate to say “lab”. Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications during the semester.

9. Course policies:
   ☐ Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and plagiarism/academic integrity.

10. Evaluation:
    ☐ Specify how students will be evaluated, ☐ what factors will be included, ☐ their relative value, and ☐ how they will be tabulated into grades (on a curve, absolute scores, etc.) ☐ Publicize UAF regulations with regard to the grades of “C” and below as applicable to this course. (Not required in the syllabus, but may be a convenient way to publicize this.) Faculty Senate Meeting #171:
        http://www.uaf.edu/uaflgov/faculty-senate/meetings/2010-2011-meetings/#171

11. Support Services:
    ☐ Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services:
    The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials.
    ☐ State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655)to provide reasonable accommodation to students with disabilities. 6/30/2011
Syllabus: GEOS F317O
PALEONTOLOGICAL RESEARCH AND LABORATORY METHODS
2 Credits – Oral Intensive

Professor: Patrick S. Druckenmiller
Office: Museum of the North, Rm. 30 (by appointment only; must check in at front desk)
Phone: 474-6954
Email: psdruckenmiller@alaska.edu
Office hours: TBA or by appointment
TA: TBA
Office: TBA
Phone: TBA
Prerequisites: GEOS F101, GEOS F112, or permission of the instructor
Lectures and discussions: MUSEUM 151*
Labs: MUSEUM 151*:
*NOTE: In order to gain admittance to the museum classroom, you must enter at the main entrance and check in at the front desk.

Required Text: A textbook is not required for this class. Because a single work that covers all areas of this course does not exist, readings on pertinent topics will be provided by the instructor. A suggested general reference that covers some of the course topics is:

Other required materials: A lab notebook and hand lens are recommended.

Course description: This course introduces students to the basic paleontological methods used in the profession to study and interpret the fossil record. Each week, the theoretical background for topics will be introduced in lecture, but this course is primarily intended to offer hands-on, practical experience in a variety of paleontological methods. We will learn the basics of fossil preparation, scientific illustration, and how to photograph macro- and microfossils using a digital SLR camera. We will also learn how to conduct more sophisticated forms of digital imaging of fossils by means of CT scans, surface laser scans, and scanning electron micrographs (SEM), and how to manipulate these data for presentation. The use of isotopic methods in paleontology will also be introduced. Because museum collections are major sources of data for most paleontological research, we will also learn the fundamentals of curation in an active museum research collection (the Earth Science Collection at the University of Alaska Museum), including how specimen data is organized and served to the scientific community through online databases. A primer on paleontological field methods (including one fieldtrip) will also be provided.

This course emphasizes oral communication. Sharing the results of research via oral presentations (and posters) to a professional and public audience is another important component of paleontology. In lecture we will discuss effective methods for oral presentations and provide opportunities to develop these skills in a relatively low-stress, friendly environment during special lab presentations (rather than in front of 300 of your peers at your first professional meeting!). A, B. Two oral presentations are required and form 20% of your total grade. The first presentation will simulate a professional conference in which you will be given 20 minutes for your talk, up to five of which may be used for answering questions. It will be recorded on video in order for you assess your presentation. The second presentation will simulate a classroom setting and will be approximately 30 minutes in duration, plus a question and answer period. Both presentations require the use of visual aids, including, but not limited to, PowerPoint or a similar application. C. Presentations will be evaluated not only by the instructor but also by your peers. A peer review guide will be provided. Thus you will have the opportunity to both critique, and be critiqued. Additional information regarding potential topics and format will be provided separately.
Course objectives: The primary objective of this course is to gain a theoretical framework and practical experience in paleontological research methods. Additionally, you will learn effective techniques for communicating the results of these methods to others. The major objectives of this course will be to: 1) understand and select an appropriate method for investigating paleontological questions; 2) learn about a variety of imaging techniques common to the discipline; 3) understand the role that museums play in preserving and serving paleontological data; and 4) prepare and deliver an effective oral presentation.

Course outcomes: We will strive to reach these objectives through lectures, laboratory exercises and individual projects. Upon completion of this course, students should be able to:

- assess and describe various methodologies available to address paleontological questions
- perform basic imaging methods necessary to present data in a variety of formats
- discuss the fundamentals of curation pertinent to museum-based research
- create, deliver and critique an oral presentation on a paleontological topic

Instructional methods: The course includes a lecture and lab component. Lectures will consist of presented material and discussions and will serve as an introduction to laboratory exercises. During lectures, questions and commentary are encouraged. When appropriate, readings will be provided to augment the lectures and/or serve as point of discussion during lectures and labs. A comprehensive final exam will be include both a written and practical component.

Labs are an integral part of this course, and are designed to provide students with an opportunity to gain real experience in paleontological research methods, including presentation techniques. A handout will accompany each lab. Most labs will include a topic-specific project aiming at providing a practical experience in each method (for example, creating a scientific illustration start to finish). Unless stated otherwise, these projects are due at the start of lab the following week. A field trip to the Permafrost Tunnel near Fox will occur late in the term as an exercise in collecting field data. The fieldtrip, including round trip transportation, will take the entire three-hour lab period.

Course policies: Attendance in both lecture and lab is mandatory. For this reason, 5% of the total grade will be based on regular lecture and lab attendance and participation. Students missing no more than one lecture will receive a C for attendance, those missing no more than 2 lectures or 1 lab will receive a B, etc. Participation in the oral presentation labs is mandatory. I expect students to arrive in class on time, and repeated and/or excessive tardiness will be treated as non-attendance. Make-up labs are allowed for legitimate excuses (illness, attending a conference, etc...) and can be scheduled with the instructor. Students are expected to conform to student code of ethic, as outlined in the UAF catalog. Plagiarism and cheating will not be tolerated and will be dealt with seriously.

Evaluation: Grading will be divided as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Oral presentation 1</td>
<td>10%</td>
</tr>
<tr>
<td>Oral presentation 2</td>
<td>10%</td>
</tr>
<tr>
<td>Lab Projects</td>
<td>60%</td>
</tr>
<tr>
<td>Attendance/Participation</td>
<td>5%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Timely completion of assigned lab projects will be a major component of the final grade. 20 percent of the final grade will be based on the two oral presentations. The final exam will build on the entire semester and will include both a written and lab practical component. Grading will be established on a curve using letter grades A, B, C, D, F. The letter grades (except F) may include a “+” or “−” to indicate that a student’s level of performance is slightly higher or lower than that of the letter grade alone.
Support Services: All efforts will be made by the instructor to assist students seeking support in this class, either during regular office hours or by appointment. If needed, the instructor will assist the student in arranging additional support, including ASUAF tutoring services (474-7355), or through other instructors on campus.

Disabilities Services: The Office of Disability Services implements the Americans with Disabilities Act (ADA) and ensures that UAF students have equal access to the campus and course materials. I will work with the Office of Disability Services (474-7043) to provide reasonable accommodation to students with disabilities. Please let me know at the start of the course if accommodations should be provided.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/25</td>
<td>Lect. 1: Introduction and goals; paleontology as a discipline</td>
</tr>
<tr>
<td>1/26</td>
<td>Lab 1: Fossil preparation I</td>
</tr>
<tr>
<td>2/1</td>
<td>Lect. 2: Conservation methods in paleontology</td>
</tr>
<tr>
<td>2/2</td>
<td>Lab 2: Fossil preparation II</td>
</tr>
<tr>
<td>2/8</td>
<td>Lect. 3: Preparing scientific figures/illustrations</td>
</tr>
<tr>
<td>2/9</td>
<td>Lab 3: Photographing macrofossils in the field and lab</td>
</tr>
<tr>
<td>2/15</td>
<td>Lect. 4: Elements of an oral presentation I</td>
</tr>
<tr>
<td>2/16</td>
<td>Lab 4: Light microscopy and microphotography</td>
</tr>
<tr>
<td>2/22</td>
<td>Lect. 5: Elements of an oral presentation II</td>
</tr>
<tr>
<td>2/23</td>
<td>Lab 5: The art of scientific illustration</td>
</tr>
<tr>
<td>2/29</td>
<td>Lect. 6: Scientific descriptions; Codes of Nomenclature</td>
</tr>
<tr>
<td>3/1</td>
<td>Lab 6: Fossil identification and description</td>
</tr>
<tr>
<td>3/7</td>
<td>Lect. 7: Museum resources I: Curation</td>
</tr>
<tr>
<td>3/8</td>
<td>Lab 7: Oral presentations I: professional meeting format (with video)</td>
</tr>
<tr>
<td>3/12-16</td>
<td>NO CLASSES – SPRING BREAK</td>
</tr>
<tr>
<td>3/21</td>
<td>Lect. 8: Museum resources II: Paleontological databases; theory and practice</td>
</tr>
<tr>
<td>3/22</td>
<td>Lab 8: ARCTOS primer: using an online database to enter and retrieve data</td>
</tr>
<tr>
<td>3/28</td>
<td>Lect. 9: Fundamentals of preparing a poster</td>
</tr>
<tr>
<td>3/29</td>
<td>Lab 9: Preparing a poster</td>
</tr>
<tr>
<td>4/4</td>
<td>Lect. 10: Methods for imaging fossils – SEM, CT, and other acronyms</td>
</tr>
<tr>
<td>4/5</td>
<td>Lab 10: Manipulating and interpreting CT images</td>
</tr>
<tr>
<td>4/11</td>
<td>Lect. 11: Isotopic analysis in paleontology</td>
</tr>
<tr>
<td>4/12</td>
<td>Lab 11: Exercise at UAF Advanced Instrumentation Lab</td>
</tr>
</tbody>
</table>
4/18  Lect. 12: Recording data in the field
4/19  Lab 12: Collecting field data; field trip to the Permafrost Tunnel
4/25  Lect. 13: Other methods and future trends in paleontology
4/26  Lab 13: Oral presentations II: classroom format
5/2   Lect. 14: Fossils as a public resource; legality and philosophy
5/3   Lab 14: Oral presentations II: classroom format
5/9-12 FINAL EXAMS
Submit originals and one copy and electronic copy to Governance/Faculty Senate Office (email electronic copy to fysenat@uaf.edu)

**REQUEST FOR CORE ORAL INTENSIVE DESIGNATOR**

**SUBMITTED BY:**

<table>
<thead>
<tr>
<th>Department</th>
<th>Geology and Geophysics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepared by</td>
<td>Patrick Druckenmiller</td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:psdruckenmiller@alaska.edu">psdruckenmiller@alaska.edu</a></td>
</tr>
<tr>
<td>College/School</td>
<td>CNSM</td>
</tr>
<tr>
<td>Phone</td>
<td>474-6954</td>
</tr>
<tr>
<td>Faculty Contact</td>
<td>P. Druckenmiller</td>
</tr>
</tbody>
</table>

See [http://www.uaf.edu/uafgov/faculty/cd](http://www.uaf.edu/uafgov/faculty/cd) for a complete description of the rules governing curriculum & course changes.

1. **COURSE IDENTIFICATION:**

<table>
<thead>
<tr>
<th>Dept</th>
<th>GEOS</th>
<th>Course #</th>
<th>317</th>
<th>No. of Credits</th>
<th>2</th>
</tr>
</thead>
</table>

**COURSE TITLE**

Paleontological Research and Laboratory Methods

Existing Course | New Course Pending Approval*  | X |
*Must be approved by appropriate Curriculum Council.*

2. **EMPHASIS DESIRED:** (See Guidelines for Oral Intensive Designator)

- **Group (medium or large class)**
- **Public (medium or large class)**
- **Public (small class)**  | X |
- **Public (large class)**  | "O/2" |

3. **CURRENT CATALOG DESCRIPTION AS IT APPEARS IN THE CATALOG:** including dept., number, title and credits

<table>
<thead>
<tr>
<th>GEOS F3170</th>
<th>Paleontological Research and Laboratory Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Credits</td>
<td>Offered Spring Even-numbered years</td>
</tr>
</tbody>
</table>

Introduction to research methods in paleontology. This course covers the fundamentals of fossil preparation, digital techniques for imaging and analyzing paleontological data, and discusses the current theory and practice of curation of fossil material in a museum setting. Common techniques for presenting research results to a scientific and public audience are also covered, with an emphasis on oral presentations. Labs emphasize practical experiences in the methods and presentation of research.

Prerequisites: GEOS 101 and GEOS 112 or permission of the instructor. (1+3)

**JUSTIFICATION FOR ACTION REQUESTED**

The purpose of the department and campus-wide curriculum committees is to scrutinize course designator applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed change and explain what has been done to ensure that the quality of the course is not compromised as a result.

The course is simultaneously being proposed as a new GEOS course Paleontological Research and Laboratory Methods (see Format 1 form). At present, students wishing to fulfill the oral-intensive requirement have only two other departmental courses from which to choose (GEOS F463O - Glacial and Periglacial Geology and GEOS F475 W, O - Presentation Techniques in the Geosciences). This course will provide additional choices to geoscience students and be directly relevant to the Paleontology Option proposed in the department. The course follows all of the suggested guidelines for a public small class (see syllabus) and adds a peer review component as well to involve the students in evaluation of the oral presentations. A peer review guide is attached, along with the syllabus.
The attached syllabus must clearly reflect the following basic elements for the ORAL COMMUNICATION emphasis requested. Please note them directly on the syllabus, using the corresponding letter. (See Guidelines in this manual.)

**GROUP (medium or large class)** (Regularly enrolling at least 12 students)
A. 15% of the final grade based on oral communication
B. 1 ongoing, integrated group project with 5-8 students
C. 2 presentations (minimum of 5 minutes per member)
D. Question & Answer period for both presentations
E. Group and Individual grading
F. Instructor Evaluation/Feedback on all presentations

**PUBLIC (medium or large class)** (Regularly enrolling at least 12 students)
A. 15% of the final grade based on oral communication
B. 3 presentations (minimum of 5 minutes each)
C. Question & Answer period for both presentations
D. Instructor Evaluation/Feedback on all presentations

**PUBLIC (small class)** (Regularly enrolling less than 12 students)
A. 15% of the final grade based on oral communication
B. 2 presentations of 20 minutes with Question & Answer or 3 presentations of 10 minutes with Question & Answer
C. Instructor Evaluation/Feedback on all presentations

**PUBLIC (large class) "O/2"** (Regularly enrolling 20 or more students)
A. 7.5% of the final grade based on oral communication
B. 1 presentation (minimum of 5 minutes), and
C. 1 presentation of 8-10 minutes with Question & Answer
D. Instructor Evaluation/Feedback on all presentations

**APPROVALS:**

<table>
<thead>
<tr>
<th>Signature, Chair, Program/Department of:</th>
<th>Date</th>
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<tr>
<th>Signature, Chair, College/School Curriculum Council for:</th>
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**ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE**

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<th>Signature, Chair, Senate Core Review Committee</th>
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GEOS F3170
Paleontological Research and Laboratory Methods

PRESENTER: ________________________________

CONTENT:
1. Was sufficient background information provided to enable comprehension of the scope and significance of the work?

2. Was the presentation pitched correctly for the intended audience (a general paleo audience)?

3. Was the talk well organized? Did it flow well?

4. Was there appropriate balance to the presentation (Introduction; Body of the Talk; Conclusions)?

MECHANICS OF DELIVERY:
5. Was the talk presented in a clear, audible and well-modulated voice?

6. Was the presentation delivered with energy and enthusiasm?

7. Was the pace of the talk appropriate for adequate comprehension?

8. Did the talk end on time and allow sufficient time for questions?

9. Were any distracting mannerisms displayed that the speaker should be aware of?

10. Were answers to questions adequate, pithy and succinct?

VISUAL AIDS:
11. Were the images associated with the talk clear and of high and consistent quality?

12. Was sufficient effort put into the visual aids to assist in understanding the topic at hand?

13. Were visual aids used effectively (that is, only when needed), or were they at times distracting because the speaker and the current slide were not always focused on the same issue?

QUESTION AND ANSWER:
14. How effective was the presenter in answering questions?

GENERAL COMMENTS:
(Please provide constructive criticism, i.e., how could the talk be improved?).