Course Change Proposal
Form A

<table>
<thead>
<tr>
<th>Academic Group (College):</th>
<th>Natural Sciences and Mathematics</th>
<th>Academic Organization (Department):</th>
<th>Biological Sciences</th>
<th>Date:</th>
<th>10-30-09</th>
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</thead>
<tbody>
<tr>
<td>Type of Course Proposal:</td>
<td>Change_X__ Deletion__</td>
<td>Department Chair:</td>
<td>Rose Leigh Vines</td>
<td>Submitted by:</td>
<td>Winston Lancaster</td>
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<td>Does this course fulfill a requirement for single-subject or multiple subject credential students?</td>
<td>Yes_X__ No_X__</td>
<td>For Catalog Copy:</td>
<td>Yes_X__ No_X__</td>
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<td>CCE (Extension):</td>
<td>Yes__ No__</td>
<td>Semester Effective:</td>
<td>Fall_X__ Spring__, 2010</td>
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This course replaces experimental course Subject Area (prefix) and Catalog Nbr (course number):  
If changing an existing course, should new version be considered a repeat of the original version? If so, the same Course ID will be maintained. If not, a new Course ID will be assigned. Note: In PeopleSoft terminology, the Course ID is the unique system identifier, not the Catalog Nbr.  
Yes__ No__

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<thead>
<tr>
<th>Change from:</th>
<th>Title:</th>
<th>Units:</th>
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<thead>
<tr>
<th>Change to:</th>
<th>Subject Area (prefix) &amp; Catalog Nbr (course no.):</th>
<th>Title:</th>
<th>Units:</th>
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<tbody>
<tr>
<td>BIO 168</td>
<td>Mammalogy</td>
<td>4.0</td>
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JUSTIFICATION:
The current format for BIO 168 is one hour of lecture and six hours of laboratory. We are planning to change the format to three hours of lecture and three hours of laboratory. Faculty assigned to teach the course have stated that there is not enough time to cover content adequately and have had to use laboratory time to deliver information that should have been presented during lecture. An additional two hours of lecture will correct this problem and permit proper use of laboratory time, although it will inevitably result in a reduction in the coverage of laboratory material.

NEW COURSE DESCRIPTION: (Not to exceed 80 words, and language should conform to catalog copy. See http://www.csus.edu/umanual/acad.htm - Guidelines for Catalog Course Description)

Prerequisite: BIO 1 and BIO 2. Units: 4.0

Note:

Prerequisite: BIO 1 and BIO 2  
Enforced at Registration: Yes__ No_X__
Corequisite:
Enforced at Registration: Yes__ No_X__
Graded: Letter_X__ Credit/No Credit__
Instructor Approval Required? Yes__ No_X__

Course Classification (e.g., lecture, lab, seminar, discussion):
Lecture and Lab C2, C16
Title for CMS (not more than 30 characters)
Mammalogy

Cross Listed?  
Yes__ No_X__
If yes, do they meet together and fulfill the same requirement, and what is the other course.

How Many Times Can This Course be Taken for Credit? _1_
Can the course be taken for Credit more than once during the same term? Yes__ No_X__
FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

Description of the Expected Learning Outcomes: Describe outcomes using the following format: “Students will be able to: 1), 2), etc.”
See the example at http://www.csus.edu/acae/example.htm

Students will be able to:
- Discuss the physical characteristics by which the Class Mammalia is defined.
- Describe the evolutionary history of mammals.
- Explain the advantages and costs of the adaptations of mammals.
- Describe Orders and many of the Families of mammals around the world, while focusing on the mammalian fauna of North America and California.
- Demonstrate the use of some of the tools and methods employed in the study of mammals.

**Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.

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:

- Performance in this course will be evaluated by three exams (two midterm exams and a comprehensive final), three lab practical tests (not comprehensive) and a report on research papers.
- Research papers that will form the subject of student reports will include a written report (maximum five pages, double-spaced) and an oral presentation.
- Exams will consist of a mixture of multiple choice, short answer and discussion questions. Lab practical tests will consist of short answer questions, primarily identifications, and a keying exercise.
- The two midterm exams will count 100 points each and the comprehensive final 150 points; each lab practical test will count 100 points. The written report will count 100 points and the oral portion 50 points. Finally 20 points will be based on class attendance and participation, at the discretion of the instructor. There will be a total of 820 possible points for the class. Final letter grades will be based on the following scale: A(-) ≥ 90%; B(±) = 80-89%; C(±) = 70-79%; D(±) = 60-69%; F<60%.

For whom is this course being developed?
 Majors in the Dept X Majors of other Depts Minors in the Dept X General Education Other
 Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes ___ No X ___
 If yes, identify program(s):

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes ____ No X ___
 If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any).

The Department Chair’s signature below indicates that affected programs have been sent a copy of this proposal form.

Approvals: If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

Signatures: Date

Department Chair: ___________________________ 11/16/09

College Dean or Associate Dean: _______________ 11/20/09

CPSP (for school personnel courses ONLY)

Associate Vice President
and Dean for Academic Programs

Distribution: Academic Affairs (original), Department Chair and College Dean. Dean’s office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.

9/10/2008
PROPOSED SYLLABUS AND COURSE SCHEDULE
MAMMALOGY – BIO 168
FALL SEMESTER, 2010
DEPARTMENT OF BIOLOGICAL SCIENCES
CALIFORNIA STATE UNIVERSITY, SACRAMENTO

Instructor
Winston C. Lancaster, Ph.D.
Office 211D Humboldt Hall
Phone (916) 278 6360
Email: w Lancaster@email.sjsu.edu
Website: http://www.csus.edu/indiv/L/Lan casterw/
Office hours: Tues., 3:00-4:30 PM; Wed., 1:30-3:00 PM

Lecture
Tuesday and Thursday 9:00 – 10:15 AM

Lab
Tuesday and Thursday 10:30 – 11:45 AM
Lectures and labs will be held in 124 Humboldt Hall

Course Objectives

- This course will acquaint you with the biology of mammals.
  We will examine the physical characteristics by which the Class Mammalia is defined.
  These characteristics form the basis of the systematic organization of mammals.
- We will study the evolutionary history of mammals.
  Comparisons among species, both extinct and extant, document the history of the
  establishment of current patterns of diversity and geographic distribution of mammals.
- We will explore the adaptations of mammals.
  The evolutionary history of mammals is characterized by changes in morphology,
  physiology and behavior by which species have adjusted to changes in the environment
  and competition with other species for limited resources.
- We will study the Orders and many of the Families of mammals around the
  world, while focusing on the mammalian fauna of North America and
  California.
- We will learn to use some of the tools and methods employed in the study of
  mammals.

Course Organization

- Lectures will cover the evolutionary history and systematic adaptations to the
  environment shared by all mammals.
  Topics will include morphology, locomotion, acquisition and management of energy,
  nutrients and water, sensory orientation, reproduction, behavior, ecology and
  zoogeography.
  Mammalian diversity will be explored through the variations by which mammals
  specialize to their environment.
- Labs will focus on the systematic organization of mammals.
  We will learn the characters that are used to identify all mammals and the characters used
  to distinguish among the Orders and Families of mammals
  We will learn the natural history, distribution and adaptations of each Order and many
  Families
  We will learn to identify most of the species of mammals found in California.
  We will learn how to access the technical literature of mammalogy and learn some of the
  research techniques used in the study of mammals.
• **Field Trips**
  One weekend field trip is planned for this course in which we will set mist nets and learn methods of acoustic monitoring for bats and learn to trap rodents. This trip is tentatively planned for 3-4 October. Participation on field trips is required as part of the course. Detailed information will be distributed separately.

**Text and other course materials**

**Required Textbook:**

**Lab text modified from:**

**Course website:**
  http://www.csus.edu/indiv/L/lancasterw/Biology168.htm  *Lab exercises and other supplementary material will be posted on the course website.*

**Evaluation**

Performance in this course will be evaluated by three exams (two midterm exams and a comprehensive final), three lab practicals, and a report on research papers. Dates of exams and practicals are listed in the course schedule.

Research papers that will form the subject of student reports must be selected and approved by 29 Sept. The written report (maximum five pages, double-spaced) will be due by 19 November. An oral presentation of the papers will be scheduled and announced by the instructor. Formats of reports, both written and oral parts, will be discussed in more detail in lab. Grades on assignments submitted after the due date will be lowered by one letter grade (10% of point value) per day.

Exams will consist of a mixture of multiple choice, short answer, and discussion questions. Lab practicals will consist of short answer questions, primarily identifications, and a keying exercise. Answers must be spelled correctly to earn full credit. As far as testing is concerned, there is no distinction between lecture and lab. Any material presented in the course or assigned as reading may appear on lecture or lab tests.

The two midterm exams will count 100 points each and the comprehensive final 150 points; each lab practical will count 100 points. The written report will count 100 points and the oral portion 50 points. Finally 20 points will be based on class attendance and participation, at the discretion of the instructor. There will be a total of 820 possible points for the class. Final letter grades will be based on the following scale:

A(+) ≥ 90%; B(+) = 80-89%; C(+) = 70-79%; D(+) = 60-69%; F≤60%

*Grades are not negotiable and work for extra credit will not be assigned.*

**Course Policies**

**Policy on Make-up of Graded Exercises**

All tests should be taken at the scheduled time. A student who anticipates that he or she may be unable to take an exam or practical at the scheduled time should make every effort to inform the instructor prior to the beginning of the exam by a phone message (either to the instructor's voice mail or to the office of the Department of Biological Sciences), by email or in person. Make-up tests will be given only upon documentation of a valid reason for missing the exam. A make-up may take the form of a multiple choice, discussion and/or an oral exam at the discretion of the instructor. Make-up practicals will take the form of an oral or computer-based test at the discretion of the instructor.

*Academic dishonesty in any form will not be tolerated.*

CSUS faculty are required to report cheating on tests or plagiarism to the Dean. Violators are subject to immediate removal from the course with the grade of “F”, and disciplinary action as described in the University catalog and in the University Policy Manual (http://www.csus.edu/admbus/umana/UMA00150.htm)

Winston C. Lancaster, Ph.D.
Attendance

Students are expected to attend all scheduled lectures, laboratories and field trips. Success in this course will require hard work and contentious attendance at lectures and labs, as the volume of material presented is too great to make up. Lab materials will only be available for study during the scheduled lab and at one review session prior to lab tests. Any student who misses the first two sessions will be administratively dropped from the class.

Dropping & Adding

Students may drop this course at any time in the first two weeks of class through "mysacstate."

After 11 September, students must drop through the departmental office with the signature of both the instructor and the departmental chair. These drops must be processed by 25 September at 5:00PM. Drops after that time require a petition to the Dean and will only be considered for serious and compelling reasons.

Lecture and Laboratory

The use of cellular phones or any other remote communication devices (including wireless internet) is not allowed during lecture or laboratory. Students are requested to turn off any such devices upon entering the lecture hall or laboratory. Persons who violate these rules will be asked to leave. The use of any communication device during a test will be interpreted as evidence of academic dishonesty.

Students are expected to take a careful and professional approach to the laboratory. Materials are fragile, valuable and in some cases irreplaceable. All lab materials must be handled with the greatest care. Boisterous behavior will not be tolerated. Students are expected to help keep the laboratory clean and neat. The 20 points of the grade for attendance and participation will be derived in part from students' care and maintenance of the materials.

Health and Safety

Every effort is made to reduce the hazards of working with museum specimens, but it is incumbent on students to be aware of the hazards that are unavoidable and to exercise proper precautions to safeguard health and safety. Every student is responsible for his/her own safety and must complete a laboratory safety awareness form.

- Specific regulations regarding use of the mammal collection are appended below.
- Sandals and open-toed shoes are not allowed in lab. You may want to keep shoes for lab in a locker.
- Any injury, no matter how minor must be reported to a member of the faculty.
- Eating, drinking and use of tobacco products are not allowed in the laboratory at any time.

The syllabus and schedule for this course are a plan that will be followed as closely as possible. They do not, however, constitute a contract. Changes to the course schedule and other important information will be posted on the course website. Your continued registration in this course indicates your knowledge and acceptance of these policies.

Class E-mail List

An email distribution list will be established for this course. Students will be asked to provide an email address at the beginning of the semester and this will be used to construct a mailing list for the class that will only be sued for course purposes. Announcements of interest to the class will be distributed via the Mammalogy Email List.
INSTRUCTIONS FOR HANDLING OF BIRD AND MAMMAL SPECIMENS

The specimens you are going to handle in class are very expensive and rare pieces collected and prepared at great cost and effort. Many are extremely old and although they may look worn, they must be handled with the utmost care. Specimens prepared in the early 1900s and even the late 1800s are extremely valuable and an excellent resource for studying the history of vertebrate zoology. In many cases, these specimens are unique and irreplaceable. We expect everyone to handle them with care and follow the simple instructions given here. If you have any questions, ask your instructor.

To prevent damage to the collection, the museum is periodically fumigated and always contains a residue preservative vapor which is hazardous if inhaled for long periods of time.

Handling of bird and mammal skins:

- Make sure your hands are clean. Oils from your hands can ruin specimens. It may not be visible at first, but specimens handled carelessly over time get greasy and begin to accumulate dust and dirt that stick to the oils.

- If you need to pick up a specimen, grasp it gently but firmly around the middle of the body. Be careful not to disarrange feathers or fur. Do not lift a specimen by the feet, bill, wing, tail, beak, etc. Do not lift a specimen by the stick. The stick is there to protect the tail feathers, not to support the whole body. If it is broken off, it cannot be replaced and the feathers have no protection. Use both hands when necessary with larger specimens. Handle specimens only when seated.

- When placing a specimen on a table or drawer, do not slide the specimen. This will crush and twist the feathers and fur and damage the specimen. Always place a bird on its back and a mammal on its belly. Never attempt to reposition or move the different body parts of a specimen, beak, feet, toes, fur, feathers, wings etc. as they will simply snap off and cannot be replaced.

- As specimens may glide in drawers, handle drawers gently. Always put specimens into drawer with head facing inward to prevent rolling. Before pushing in the drawer, check that no parts of any specimen will be crushed when the drawer closed. Specimens should have plenty of space and not even slightly brush against the drawer above them. Do not pull specimen trays out to their full length because they fall out easily. Specimens and specimen trays should never be removed from the laboratory.

- If skins are in transparent tubes, never open the tube. Specimens must be viewed from the outside. If an instructor must remove a bird specimen, they should be pushed out gently, head first so as not to crush the feathers.

- Labels are extremely important to the value of the specimen. These contain full documentation and inventory data of the specimen. Do not write on, or alter in any other way the specimen label. Be careful not to pull the tag off the specimen, if a label is falling off, please notify the instructor.

- Never write on a specimen or mark it in any way.

- Mounted specimens, models, skeletons and nests with eggs are extremely fragile. Handle them cautiously.

- Always put skulls down in their natural position, never with the top of the skull on the table. Do not mark them in any way. Do not use metal probes or writing utensil that could possibly leave marks on the skull. Make sure your hands are clean before handling the bones.

- Food or beverages may never be brought into any room with specimens.
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<thead>
<tr>
<th>Date</th>
<th>Tuesday Lecture</th>
<th>Tuesday Lab</th>
<th>Date</th>
<th>Thursday Lecture</th>
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<tbody>
<tr>
<td>14 Sep.</td>
<td>Soft Tissue Anatomy</td>
<td>Integument, Hair, Horns &amp; Antlers; Library</td>
<td>16 Sep.</td>
<td>Mammalian Classification</td>
<td>Research papers, Field Techniques; Review of</td>
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<td>Literature Searches</td>
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<td>Lectures</td>
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<td>21 Sep.</td>
<td>Lecture</td>
<td>Review of Labs</td>
<td>23 Sep</td>
<td>Lab Practical 1</td>
<td>Mammalian Origins (lecture)</td>
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<td>Exam 1</td>
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<td>28 Sep.</td>
<td>Mammalian Reproduction</td>
<td>Order, Monotremata</td>
<td>30 Sep</td>
<td>Prototheria &amp; Metatheria</td>
<td>Infraclass Eutheria: O. Diprotodontia</td>
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<td>Infraclass Eutheria: O. Xeranthera, O. Pholidota</td>
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<td>Infraclass Eutheria: O. Insectivora</td>
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<td>2 Nov.</td>
<td>Lecture</td>
<td>Review of Lectures Labs</td>
<td>4 Nov.</td>
<td>Lab Practical 2</td>
<td>Individual Behavior (lecture)</td>
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<td>16 Nov.</td>
<td>Artiodactyla</td>
<td>Infraclass Eutheria: O. Artiodactyla</td>
<td>18 Nov</td>
<td>Zoogeography</td>
<td>Infraclass Eutheria: O. Artiodactyla</td>
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<td>23 Nov.</td>
<td>Rodentia &amp; Lagomorpha</td>
<td>Infraclass Eutheria: O. Rodentia</td>
<td>25 Nov</td>
<td>Thanksgiving Holiday</td>
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<tr>
<td>14 Dec.</td>
<td>FINAL EXAM</td>
<td>8 - 10 AM</td>
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