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| For Academic Affairs and Research Use Only | |
| Proposal Number |  |
| CIP Code: |  |
| Degree Code: |  |

**New or Modified Course Proposal Form**

**[x] Undergraduate Curriculum Council**

**[] Graduate Council**

|  |
| --- |
| **[ ]New Course, [ ]Experimental Course (1-time offering), or [x]Modified Course (Check one box)** |

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

|  |  |
| --- | --- |
| David F. Gilmore 2/9/2021 **Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **COPE Chair (if applicable)** |
| Stephen J. Mullin 2/9/2021 **Department Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Head of Unit (if applicable)** |
| John Hershberger 2/24/2021  **College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Undergraduate Curriculum Council Chair** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date… **Director of Assessment (new courses only)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Graduate Curriculum Committee Chair** |
| Lynn Boyd 2/25/2021 **College Dean** | Alan Utter 4/12/2021  **Vice Chancellor for Academic Affairs** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **General Education Committee Chair (if applicable)** |  |

1. **Contact Person (Name, Email Address, Phone Number)**

Dr. Kyle Gustafson [kgustafson@astate.edu](file:///C:\Users\kgustafson\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\RLU5038R\kgustafson@astate.edu) 870-972-3174

1. **Proposed starting term and Bulletin year for new course or modification to take effect**

**Fall 2021**

**Instructions:**

*Please complete all sections unless otherwise noted. For course modifications, sections with a “Modification requested?” prompt need not be completed if the answer is “No.”*

|  |  |  |
| --- | --- | --- |
|  | **Current (Course Modifications Only)** | **Proposed (Modified)**  *(Indicate “N/A” if no modification)* |
| **Prefix** | **BIO** | **BIO** |
| **Number\*** | **4351**  **4352** | **4354** |
| **Title** | **Mammalogy Laboratory**  **Mammalogy** | **Mammalogy** |
| **Description\*\*** | **BIO 4351. Mammalogy Laboratory**    Three hours per week. Special course fees may apply. To be taken concurrently with BIO 4352. Fall, even.  **BIO 4352.**  **Mammalogy** Classification, distribution, structure, ecology, adaptations, and economic importance of mammals. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall, even. | **BIO 4354. Mammalogy** Evolution, phylogenetics, biogeography, structure, ecology, taxonomy, and field techniques of mammals. Special course fees may apply. Lecture three hours and lab three hours per week. Prerequisites, “C” or better in both BIO 1301 and BIO 1303. |

***\**** (Confirm with the Registrar’s Office that number chosen has not been used before and is available for use. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

\*\*Forty words or fewer as it should appear in the Bulletin.

1. **Proposed prerequisites and major restrictions** **[Modification requested? YES]**

(Indicate all prerequisites. If this course is restricted to a specific major, which major. If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

1. **YES** Are there any prerequisites?
   1. If yes, which ones?

**“C” or better in both BIO 1301 & BIO 1303**

* 1. Why or why not?

**Students must have background in taxonomy, which is highlighted in Biology of Animals**

1. **NO** Is this course restricted to a specific major?
   1. If yes, which major? Enter text...
2. **Proposed course frequency [Modification requested? YES]**

(e.g. Fall, Spring, Summer; if irregularly offered, please indicate, “irregular.”) *Not applicable to Graduate courses.*

**Fall**

1. **Proposed course type [Modification requested? YES]**

Will this course be lecture only, lab only, lecture and lab, activity (e.g., physical education), dissertation/thesis, capstone, independent study, internship/practicum, seminar, special topics, or studio? Please choose one.

**Lecture and lab**

1. **Proposed grade type [Modification requested? NO]**

What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental, or other [please elaborate])

**Standard Letter**

1. **YES** Is this course dual-listed (undergraduate/graduate)?
2. **NO** Is this course cross-listed?

*(If it is, all course entries must be identical including course descriptions. Submit appropriate documentation for requested changes. It is important to check the course description of an existing course when adding a new cross-listed course.)*

**a.** – If yes, please list the prefix and course number of the cross-listed course.

Enter text...

**b.** – **Yes / No** Can the cross-listed course be used to satisfy the prerequisite or degree requirements this course satisfies?

Enter text...

1. **NO** Is this course in support of a new program?

a. If yes, what program?

Enter text...

1. **NO** Will this course be a one-to-one equivalent to a deleted course or previous version of this course (please check with the Registrar if unsure)?

a. If yes, which course?

Enter text...

**Course Details**

1. **Proposed outline** **[Modification requested? YES]**

|  |  |  |
| --- | --- | --- |
| Week | Lecture | Lab |
| 1 | The Science of Mammalogy | Mammalian Skulls |
| 2 | Phylogeny and Diversification of Mammals | Marsupials |
| 3 | Evolution and Dental Characteristics | Eulipotyphla |
| 4 | Biogeography | Chiroptera I |
| 5 | Integument, Support, and Movement | Chiroptera II |
| 6 | Modes of Feeding | Cingulata/Lagomorpha |
| 7 | Environmental Adaptations | Practical |
| 8 | Reproduction | Rodentia I |
| 9 | Sexual Selection, Parental Care, and Mating Systems | Rodentia II |
| 10 | Social Behavior and Communication | Rodentia III |
| 11 | Movement Patterns and Spatial Relationships | Field Trip |
| 12 | Populations and Life History | Carnivora I |
| 13 | Community Ecology | Carnivora II |
| 14 | Parasites and Zoonotic Diseases | Cetartiodactyla |
| 15 | Conservation | Practical |

1. **Proposed special features** **[Modification requested? NO]**

(e.g. labs, exhibits, site visitations, etc.)

1. **Department staffing and classroom/lab resources**

**Assistant professor, and Curator of Mammals, Dr. Gustafson will teach as part of his teaching rotation**

1. Will this require additional faculty, supplies, etc.?

**Mammal Natural History Museum**

1. **NO** Does this course require course fees?

*If yes: please attach the New Program Tuition and Fees form, which is available from the UCC website.*

**Justification**

**Modification Justification (Course Modifications Only)**

1. Justification for Modification(s)

**Arkansas has a strong history of mammal reintroductions and management. This course is essential for training the next generation of mammal managers and conservationists in the state and beyond. Currently, the lecture is only two 50-minute periods which is not enough time to get through the fundamentals of mammalogy while still allowing time for quizzes and in-class activities. In fact, I gave a mid-semester evaluation of the course and students unanimously requested a 3-credit lecture rather than the current 2-credit lecture. Further, the lectures and labs are complementary and students are currently able to only take one or the other, which does not match my teaching style and leaves students with a grossly incomplete understanding of mammalian theory and diversity. Thus, I’m proposing to combine the lecture and lab into a 4-credit course with a single grade.**

**New Course Justification (New Courses Only)**

1. Justification for course. Must include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

Enter text...

b. How does the course fit with the mission of the department? If course is mandated by an accrediting or certifying agency, include the directive.

Enter text...

c. Student population served.

Enter text...

d. Rationale for the level of the course (lower, upper, or graduate).

Enter text...

**Assessment**

**Assessment Plan Modifications (Course Modifications Only)**

1. **NO** Do the proposed modifications result in a change to the assessment plan?

*If yes, please complete the Assessment section of the proposal*

**Relationship with Current Program-Level Assessment Process (Course modifications skip this section unless the answer to #18 is “Yes”)**

1. What is/are the intended program-level learning outcome/s for students enrolled in this course? Where will this course fit into an already existing program assessment process?

Enter text...

1. Considering the indicated program-level learning outcome/s (from question #19), please fill out the following table to show how and where this course fits into the program’s continuous improvement assessment process.

*For further assistance, please see the ‘Expanded Instructions’ document available on the UCC - Forms website for guidance, or contact the Office of Assessment at 870-972-2989.*

|  |  |
| --- | --- |
| **Program-Level Outcome 1 (from question #19)** | Type outcome here. What do you want students to think, know, or do when they have completed the course? |
| Assessment Measure | Please include direct and indirect assessment measure for outcome. |
| Assessment  Timetable | What semesters, and how often, is the outcome assessed? |
| Who is responsible for assessing and reporting on the results? | Who (person, position title, or internal committee) is responsible for assessing, evaluating, and analyzing results, and developing action plans? |

*(Repeat if this new course will support additional program-level outcomes)*

**Course-Level Outcomes**

1. What are the course-level outcomes for students enrolled in this course and the associated assessment measures?

|  |  |
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| **Outcome 1** | Type outcome here. What do you want students to think, know, or do when they have completed the course? |
| Which learning activities are responsible for this outcome? | List learning activities. |
| Assessment Measure | What will be your assessment measure for this outcome? |

*(Repeat if needed for additional outcomes)*

**Bulletin Changes**

|  |
| --- |
| **Instructions** |
| **Please visit** [**http://www.astate.edu/a/registrar/students/bulletins/index.dot**](http://www.astate.edu/a/registrar/students/bulletins/index.dot) **and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Please include a before (with changed areas highlighted) and after of all affected sections.**  **\*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.** |

**Undergraduate Bulletin**

**BEFORE – UNDERGRADUATE BULLETIN – Page 399**

Zoology elective:

BIO 3303 **AND** BIO 3301, General Entomology and Laboratory

BIO 3313 **AND** BIO 3311, Economic Entomology and Laboratory

BIO 3302 **AND** BIO 3312, Comparative Anatomy and Laboratory

BIO 3322 **AND** BIO 3332, Invertebrate Zoology and Laboratory

BIO 4322 **AND** BIO 4323, Biology of Marine Mammals and Laboratory

BIO 4332 **AND** BIO 4342, Animal Histology and Laboratory

BIO 4333, Marine Biology

BIO 4343 **AND** BIO 4341, Animal Embryology and Laboratory

BIO 4352 **AND** BIO 4351, Mammology and Laboratory

BIO 4362, Applied Aquaculture

BIO 4363 **AND** BIO 4361, Mammalian Neurobiology and Laboratory

BIO 4372, Applied Fisheries

BIO 4373 **AND** 4371, Animal Ecology and Laboratory

BIO 4382 **AND** BIO 4392, Parasitology and Laboratory

BIO 4403, Comparative Vertebrate Reproduction

BIO 4412 **AND** BIO 4411, Herpetology and Laboratory

BIO 4423 **AND** BIO 4421, Ornithology and Laboratory

BIO 4433, Field Experience in Marine Environments

BIO 4443 **AND** 4441, Comparative Animal Physiology and Laboratory

An individual course cannot be used as both a required course and an elective.

**AFTER – UNDERGRADUATE BULLETIN – Page 399**

Zoology elective:

BIO 3303 **AND** BIO 3301, General Entomology and Laboratory

BIO 3313 **AND** BIO 3311, Economic Entomology and Laboratory

BIO 3302 **AND** BIO 3312, Comparative Anatomy and Laboratory

BIO 3322 **AND** BIO 3332, Invertebrate Zoology and Laboratory

BIO 4322 **AND** BIO 4323, Biology of Marine Mammals and Laboratory

BIO 4332 **AND** BIO 4342, Animal Histology and Laboratory

BIO 4333, Marine Biology

BIO 4343 **AND** BIO 4341, Animal Embryology and Laboratory

BIO 4354, Mammalogy

BIO 4362, Applied Aquaculture

BIO 4363 **AND** BIO 4361, Mammalian Neurobiology and Laboratory

BIO 4372, Applied Fisheries

BIO 4373 **AND** 4371, Animal Ecology and Laboratory

BIO 4382 **AND** BIO 4392, Parasitology and Laboratory

BIO 4403, Comparative Vertebrate Reproduction

BIO 4412 **AND** BIO 4411, Herpetology and Laboratory

BIO 4423 **AND** BIO 4421, Ornithology and Laboratory

BIO 4433, Field Experience in Marine Environments

BIO 4443 **AND** 4441, Comparative Animal Physiology and Laboratory

An individual course cannot be used as both a required course and an elective.

**BEFORE – UNDERGRADUATE BULLETIN – Page 401**

Select two of the following:

BIO 4352 **AND** 4351, Mammalogy and Laboratory

BIO 4412 **AND** 4411, Herpetology and Laboratory

BIO 4423 **AND** 4421, Ornithology and Laboratory

**AFTER – UNDERGRADUATE BULLETIN – Page 401**

Select two of the following:

BIO 4354, Mammalogy

BIO 4412 **AND** 4411, Herpetology and Laboratory

BIO 4423 **AND** 4421, Ornithology and Laboratory

**BEFORE – UNDERGRADUATE BULLETIN – Page 444**

**BIO 4342. Animal Histology Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 4332. Spring.

**BIO 4343. Animal Embryology** Study of reproduction and development in animals including reproductive systems, gamete formation, fertilization, early cleavage, formation of germ layers, and development of the organ systems. Lecture three hours per week. Special course fees may apply. To be taken concurrently with BIO 4341. Prerequisites, BIO 1301 and BIO 1303. Spring.

**BIO 4351. Mammology Laboratory** Three hours per week. Special course fees may apply. To be taken concurrently with BIO 4352. Fall, even.

**BIO 4352. Mammology** Classification, distribution, structure, ecology, adaptations, and economic importance of mammals. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall, even.

**BIO 4361. Mammalian Neurobiology Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4363. Fall, odd.

**BIO 4362. Applied Aquaculture** Field course in which principles of aquaculture are applied within several public and private enterprises. Intended for the student interested in wildlife, fisheries biology, and agriculture. Special course fees may apply. Prerequisites, BIO 4311 and BIO 4312. Summer.

**BIO 4363. Mammalian Neurobiology** A detailed study of the mammalian nervous system with particular emphasis on morphological aspects. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303, or BIO 2223 and BIO 2221, or instructor permission. Fall, odd.

**BIO 4371. Animal Ecology Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4373. Fall, odd.

**BIO 4372. Applied Fisheries** Field course in which principles are applied within several fisheries management settings. Intended for the Wildlife Ecology and Management major. Special course fees may apply. Prerequisite, BIO 4311. Summer.

**BIO 4373. Animal Ecology** The relationship of animals to their chemical, physical, and biological environment, and the distribution of animal life. Lecture three hours per week. Special course fees may apply. Prerequisites, BIO 3023. Fall, odd.

**BIO 4382. Parasitology** Parasites of vertebrates and plants, with emphasis on protozoan and helminth parasites of man and domestic animals. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Spring.

**BIO 4392. Parasitology Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 4382. Spring.

**BIO 4401. Ichthyology Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4402. Fall, even.

**BIO 4402. Ichthyology** Taxonomy, distribution, natural history, and economic importance of fishes, with emphasis on Arkansas species. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall, even.

**BIO 4403. Comparative Vertebrate Reproduction** This combined lecture and lab course surveys major events in the vertebrate reproductive cycles and patterns. Special course fees may apply. Prerequisites, BIO 4441 and BIO 4443, or BIO 3323 and 3321. Dual Listed BIO 5403. Fall, even.

**BIO 4411. Herpetology Laboratory** Three hours per week. Special course fees may apply. To be taken concurrently with BIO 4453. Spring, even.

**BIO 4413. Wildlife Program Internship** Participation in a professional wildlife or fisheries educational, management or research program activity. Internship is arranged by the student and may be a volunteer or paid position. Entails a minimum of 160 work hours. Special course fees may apply. Must be approved by advisor or chair. Fall, Spring, Summer.

**AFTER – UNDERGRADUATE BULLETIN – Page 444**

**BIO 4342. Animal Histology Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 4332. Spring.

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**BIO 4362. Applied Aquaculture** Field course in which principles of aquaculture are applied within several public and private enterprises. Intended for the student interested in wildlife, fisheries biology, and agriculture. Special course fees may apply. Prerequisites, BIO 4311 and BIO 4312. Summer.

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**BIO 4392. Parasitology Laboratory** Four hours per week. Special course fees may apply. To be taken concurrently with BIO 4382. Spring.

**BIO 4401. Ichthyology Laboratory** Two hours per week. Special course fees may apply. To be taken concurrently with BIO 4402. Fall, even.

**BIO 4402. Ichthyology** Taxonomy, distribution, natural history, and economic importance of fishes, with emphasis on Arkansas species. Lecture two hours per week. Special course fees may apply. Prerequisites, BIO 1301 and BIO 1303. Fall, even.

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