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

**New Course Proposal Form**

**[] Undergraduate Curriculum Council**

**[X ] Graduate Council**

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

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

Email completed proposals to [curriculum@astate.edu](mailto:curriculum@astate.edu) for inclusion in curriculum committee agenda.

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| David F Gilmore 10/25/2018 **Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **COPE Chair (if applicable)** |
| Travis Marsico 10/26/2018 **Department Chair:** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Head of Unit (If applicable)** |
| David F Gilmore 10/25/2018 **College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Undergraduate Curriculum Council Chair** |
| A.Lambertus for Anne Grippo 10/26/2018 **College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Graduate Curriculum Committee Chair** |
| |  |  | | --- | --- | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter date |   **General Education Committee Chair (If applicable)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Vice Chancellor for Academic Affairs** |

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

Dr. Lorin Neuman-Lee [lneumanlee@astate.edu](mailto:lneumanlee@astate.edu)

870-972-3111

2. Proposed Starting Term and Bulletin Year

Spring 2019

3. Proposed Course Prefix and Number (Confirm that number chosen has not been used before. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

BIO 6903

4. Course Title – if title is more than 30 characters (including spaces), provide short title to be used on transcripts. Title cannot have any symbols (e.g. slash, colon, semi-colon, apostrophe, dash, and parenthesis). Please indicate if this course will have variable titles (e.g. independent study, thesis, special topics).

Animal Ecophysiology

5. Brief course description (40 words or fewer) as it should appear in the bulletin.

An examination of animal physiology in an ecological context. Emphasis will be placed on wild vertebrate populations. Topics may include stress, reproduction, osmoregulation, ecoimmunology, and metabolic processes.

6. Prerequisites and major restrictions. (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. No Are there any prerequisites?
   1. If yes, which ones?

Enter text...

1. No Is this course restricted to a specific major?
   1. If yes, which major? Enter text...

7. Course frequency(e.g. Fall, Spring, Summer). *Not applicable to Graduate courses.*

8. Will this course be lecture only, lab only, lecture and lab, activity, dissertation, experiential learning, independent study, internship, performance, practicum, recitation, seminar, special problems, special topics, studio, student exchange, occupational learning credit, or course for fee purpose only (e.g. an exam)? Please choose one.

Lecture only

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

Standard letter

10No Is this course dual listed (undergraduate/graduate)?

11. 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.)*

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

Enter text...

**11.2** – **Yes / No** Are these courses offered for equivalent credit?

Please explain. Enter text...

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

a. If yes, what program?

Enter text...

13. No Does this course replace a course being deleted?

a. If yes, what course?

Enter text...

14. NO Will this course be equivalent to a deleted course?

a. If yes, which course?

Enter text...

15. yes Has it been confirmed that this course number is available for use?

*If no: Contact Registrar’s Office for assistance.*

16. NO Does this course affect another program?

If yes, provide confirmation of acceptance/approval of changes from the Dean, Department Head, and/or Program Director whose area this affects.

Enter text...

**Course Details**

17. Outline (The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

Week 1: Introduction to ecophysiology

Week 2: Challenges to addressing physiological questions in ecology

Week 3: Metabolic processes and energy flow

Week 4: Stress and its influences on energetic flow

Week 5: Stress and its influences on energetic flow

Week 6: Reproduction in an ecological context

Week 7: Reproduction in an ecological context

Week 8: Immune function and disease transmission

Week 9: Immune function and disease transmission

Week 10: Osmoregulatory function

Week 11: Considerations for organisms living in ‘extremes’

Week 12: Considerations for organisms living in ‘extremes’

Week 13: Influence of the microbiome on physiology

Week 14: Conclusion/wrap-up

18. Special features (e.g. labs, exhibits, site visitations, etc.)

No

19. Department staffing and classroom/lab resources

New asst. prof. Dr. Neuman-Lee will teach as part of teaching rotation

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

No

20. 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.*

**Course Justification**

21. Justification for course being included in program. Must include:

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

This course will help to bridge key gaps for students in the Molecular Biosciences, Environmental Sciences, and Biology Graduate programs. By analyzing physiology in the context of ecology, graduate students will be asked to both consider and recognize areas of biology to which they are not classically trained. However, with the increase in collaboration and interdisciplinary work in science, bridging these gaps is a critical need for students. Students more traditionally trained in molecular and laboratory sciences will be exposed to ecological concepts, while students more traditionally trained in wildlife studies will be exposed to molecular and physiological concepts. Further, the interaction between these groups of students will be a key component for this graduate-level course. Students will be expected to: 1) Appreciate the influence of ecological processes on wild organisms, 2) Understand key physiological processes that guide the behavior and ecology of wild organisms, and 3) Integrate these concepts, and 4) Apply these concepts to their own research.

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

This course fulfills two of the assessment learning objectives for MA, MS, and MSE in Biology: 1) • Students will be able to understand that science is a process as well as a body of knowledge and 2) • Students will be able to acquire the skills and knowledge needed for employment or advanced graduate study in discipline related areas

c. Student population served.

Graduate students in the EVS, MBS, Bio, and Agriculture fields would benefit from this course

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

This course will rely heavily on primary literature and discussions. It is most suitable for graduate students who are engaged in literature reviews and who have developed analytical skills.

**Assessment**

**Relationship with Current Program-Level Assessment Process**

22. 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?

* Students will be able to understand that science is a process as well as a body of knowledge
* Students will be able to acquire the skills and knowledge needed for employment or advanced graduate study in discipline related areas.

23. Considering the indicated program-level learning outcome/s (from question #23), 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.*

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| **Program-Level Outcome 1 (from question #23)** | * Students will be able to understand that science is a process as well as a body of knowledge |
| Assessment Measure | Masters of Science: Successful defense of thesis/dissertation  Masters of Arts: Successful completion of practicum II  Master of Science Education: Successful completion of program |
| Assessment  Timetable | Final Semester of degree |
| Who is responsible for assessing and reporting on the results? | The student’s committee and department chair are responsible for assessing this outcome. |

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| **Program-Level Outcome 1 (from question #23)** | * Students will be able to acquire the skills and knowledge needed for employment or advanced graduate study in discipline related areas. |
| Assessment Measure | Masters of Science: Successful defense of thesis/dissertation  Masters of Arts: Successful completion of practicum II  Master of Science Education: Successful completion of program |
| Assessment  Timetable | Final Semester of degree |
| Who is responsible for assessing and reporting on the results? | The student’s committee and department chair are responsible for assessing this outcome. |

**Course-Level Outcomes**

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

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| **All outcomes** | * Appreciate the influence of ecological processes on wild organisms |
| Which learning activities are responsible for this outcome? | Lectures, reading primary literature, in-class discussion, in-class leading of a paper discussion |
| Assessment Measure | Graded student presentation with rubric |

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| **All outcomes** | * Understand key physiological processes that guide the behavior and ecology of wild organisms |
| Which learning activities are responsible for this outcome? | Lectures, reading primary literature, in-class discussion, in-class leading of a paper discussion |
| Assessment Measure | Graded student presentation with rubric |

**Bulletin Changes**

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| **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. Follow the following guidelines for indicating necessary changes.**  **\*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.**  - Deleted courses/credit hours should be marked with a red strike-through (~~red strikethrough~~)  - New credit hours and text changes should be listed in blue using enlarged font (blue using enlarged font).  - Any new courses should be listed in blue bold italics using enlarged font (***blue bold italics using enlarged font***)  *You can easily apply any of these changes by selecting the example text in the instructions above, double-clicking the ‘format painter’ icon 🡪 , and selecting the text you would like to apply the change to.*  *Please visit* [*https://youtu.be/yjdL2n4lZm4*](https://youtu.be/yjdL2n4lZm4) *for more detailed instructions.* |

Paste bulletin pages here...