1. Course Information:

1.1 Course Prefix and Number: EFB 480
Course Title: Principles of Animal Behavior
(If a new or renumbered course, please check with the Registrar regarding the use or reuse of the course number)

1.2 ☑ This is a Major Course Revision
OR
☐ This is a New Course.
OR
☐ This is a Minor Course Revision

If this is a Course Revision, please see Course Proposal Form – Instructions and Guidance to determine if your revision is major or minor. Indicate below the reason(s) for the revision.

(Please check all that apply)

☐ Course Number/Division ☑ Learning Outcomes ☑ Institutional Resources
☐ Title ☑ Concepts, Content ☑ Semester Offered
☑ Credit hours ☑ Catalog Description ☐ Course Inactivation
☐ Pre- or Co-requisite(s) ☑ Instructional Methods ☐ Course Reactivation
☐ Format ☐ General Education

1.3 General Education knowledge and skills area (if applicable): If none, check here ☐

☐ American History ☐ Humanities ☐ Other World Civilizations
☐ The Arts ☐ Mathematics ☐ Social Sciences
☐ Basic Communication ☐ Natural Sciences ☐ Western Civilization
2. Proposer Need Statement:

2.1 Describe why this course (or course revision) is needed to meet current or proposed goals and outcomes of the program or College, and, if a revision, provide an explanation of and justification for the revision. Changing the credit hours will permit more students to take the course and require less teaching assistant help, while maintaining a high quality behavior course that meets the needs of the ESF student body.

2.2 List the pre-requisite or co-requisite courses (taught within the home department or taught by another department) and explain their relationship to the proposed course. Pre-requisite: Two semesters of general biology or equivalent.

2.3 Explain the impact of this course in meeting the goals and outcomes of other Departments/programs (if any). This course fulfills the Applied Conservation Biology requirement in Conservation Biology, Upper Division Biology requirement in Environmental Biology and structure and function requirement in Wildlife Science.

2.4 If the proposed course is designed to fulfill SUNY General Education Requirements, the Associate Provost for instruction must review this proposal to ensure that General Education Requirements will be met for the specified knowledge area (See Instructions and Guidance). Please provide an explanation of how this course fulfills SUNY General Education Requirements. N/A

2.5 What are the staffing requirements (instructor, TA, Lab tech, etc.) for this course? If a new course, are there new staffing needs or are there adequate staff members already in place? If a revised course, are there additional staffing needs? The number of TAs required for this course will depend on the enrollment. The TA would be expected to attend lectures; hold office hours; grade homeworks, exams and other assignments, and help facilitate small group work during the class meetings.

2.6 What Department (or extra-Department) resources are or will be made available to support the course or course revision? The TA assignments will be allocated based on department allocation and enrollment.

2.7 Anticipated Enrollment (enter where applicable)

| Fall Semester: 60 | Spring Semester: |
| Summer Semester: |

2.8 Anticipated frequency of class meetings. twice a week
3. DETAILED COURSE DESCRIPTION

3.1 COURSE IDENTIFICATION AND FORMAT:

3.1.1 Course Prefix and Number: EFB 480
3.1.2 Course Name: Principles of Animal Behavior
3.1.3 Credit Hours: 3
3.1.4 Semester (check all that apply): Fall ☑ Spring ☐ Summer ☐
3.1.5 Format (check as appropriate): Lecture ☑ Online ☐ Lab ☐ Field ☐ Other ☐ (explain)
3.1.6 Contact hours per week: 3
3.1.7 Prerequisite(s) – if none, please enter “None” (Be specific, as Upper Division courses and Graduate courses will likely have some pre-requisite knowledge) One year of General Biology or equivalent.

3.2 SCOPE:

3.2.1 Level of Instruction (check one, or two if a shared resource course):
   Lower Division ☐ Upper Division ☑
   Beginning Graduate ☐ Advanced Graduate ☐

3.2.2 Relation to curriculum or to other ESF or Syracuse University courses:
   a. Is this a required course? No ☐ Yes ☑.
      If Yes, please list the program(s) for which it is a requirement:
   b. Is this an elective course within your department? No ☐ Yes ☑.
   c. Is enrollment in this course restricted? No ☐ Yes ☑.
      If Yes, please explain: The course is capped at 60 students. This enrollment number will allow me to meet the demands for enrollment for the course, while also allowing me to use teaching pedagogies centered on small group work.
   d. Are other ESF or SU courses similar or identical to this course? No ☐ Yes ☑.
      If Yes, please identify the courses: Bio 417 - Animal Behavior and Evolutionary Biology Laboratory
   e. Is this course a shared resource offering (i.e. is there a graduate or undergraduate concurrent offering)? No ☐ Yes ☑.
      If Yes, what is the course number of the concurrent offering?

3.3 STUDENT LEARNING OUTCOMES:

Identify the student learning outcomes associated with this course.

By the end of the course students will be able to:

1) describe the difference between proximate and ultimate causation and explain the relationship between these types of causation. By extension, students should be able to distinguish between proximate and ultimate explanations for behaviors discussed during the course.
2) apply knowledge for proximate and ultimate causation to develop hypotheses and predictions about behavior concepts discussed in the class.

3) explain the role of animal behavior in the adaptation of organisms to their environments. By extension, students should be able to explain how evolutionary forces lead to observed behaviors.

4) explain internal control of behavior, including the physiological, neural, and genetic underpinnings of behavior.

5) explain the role of behavior in helping animals respond to environmental changes. By extension, students should be able to explain how environmental cues mediate behaviors.

3.4 MAJOR CONCEPTS, PROCESSES or TOOLS:

Identify the course content and themes (e.g. Table of Contents) consistent with the learning domains and outcomes.

Evolution of behavior: Natural selection, evolution, evolutionary constraints, behavioral ecology, proximate versus ultimate causation

Underpinnings of behavior: learning; innate behaviors; genetic, neural and physiological basis of behavior; environmental mediation of behaviors; behavioral responses to a changing environment

Categories of behavior and related concepts: antipredator predator behavior, foraging behavior, dispersal and migration, reproductive behavior, mating systems, mate selection, communication, parental care, social evolution, cooperation, altruism, levels of selection, human behavior

3.5 INSTRUCTIONAL METHODS:

Identify the methods used to meet the course outcomes, as well as the principal instructional methods. This course will use lecture and discussion to meet the course outcomes. Lecture and discussion will be about course topics, case studies, scientific papers, recent scientific advances, and content from the course textbook. The textbook will be Rubenstein and Alcock, Animal Behavior, Sinauer Oxford or equivalent. Assessment will include 2-3 semester exams and may include individual or group participation in class, or an online discussion board, quizzes, or group project.

3.6 CATALOG DESCRIPTION

Provide the course description using the precise format to be included in the ESF catalog (i.e. course number and title; format; brief description; semester(s) offered; and pre-/co-requisites). Please do not exceed 1000 characters.

EFB 480. Principles of Animal Behavior (3)

Three hours of lecture/discussion per week. Basic principles of animal behavior and the scientific process, including genetic, neural and physiological basis of behavior, behavioral ecology and behavioral responses to a changing environment. Proximate and ultimate mechanisms controlling the behavior of animals including humans. Fall.
Prerequisite(s): EFB 101 or equivalent

3.7 COURSE HISTORY:

Provide the dates of prior approval of this course, and its revision history. This course was approved by the C of F Faculty on 1/4/67 under the number F Zool 150. By the Faculty Action of 5/7/68 F. Zool 150 was renumbered F. Zool 570, effective 9/1/68. The course was a minor change on 11/14/67. A revised Detailed Course Description for F. Zool 570 was approved by the C of F Faculty on 3/31/71. The F. Zool abbreviation was redesignated FZO in August 1973, as part of the computerization of the College records. FZO 570 was renumbered FZO 470 by the Faculty Action of 12/19/73, which approved the renumbering of many 500 level courses to conform to SUNY standards. Semester changed by Faculty Action of 3/29/79. Course redesignated EFB 480 by Faculty Action 12/1/83.

3.7.1 Relationship to current ESF courses

This course is replacing a current ESF course ☐ YES ☒ NO

If NO, then proceed to section 4 below.

If YES, then provide below the number and name of the course to be deactivated and removed from the catalog once this course proposal has been approved:

Course Number (of the course to be replaced)
Course Name (of the course to be replaced)

If the course to be replaced is used by departments other than the department sponsoring this proposal, please indicate below which departments are affected and the date they were notified about the course replacement.

Department: Date of Notification:
Department: Date of Notification:
Department: Date of Notification:
Department: Date of Notification:
4. Institutional Impacts:

This section pertains to forecasting institutional resource needs to support the course or course revision. Provide clear statements regarding the needs and current availability (or absence) of resources. Note that, if this is a course revision, only the impacts of the revision should be included.

Staffing needs: This course will require at least one half-time (10 hr/week) TA to help with grading and to help facilitate small group work during class. If fully enrolled, this course will require a fulltime TA.

Classroom resources (e.g. physical facilities in a laboratory, lecture hall, flexible space, academic computing): Lecture hall or a classroom with tables that can be rearranged for group work.

Technology Resources: Computer, DVD, and projection capabilities.

Computing Resources (software licensing, hardware, access): Powerpoint and internet connection.

Library Resources (subscriptions, services): Access to article from the journals Animal Behaviour and Behavioral Ecology. A reserved copy of the textbook.

Transportation Requirements (budget, fees, fleet vehicles): N/A

Forest Properties or Field Practicum Facilities: N/A
5. Health and Safety Considerations:

Will any of the conditions or situations outlined below be present in association with the course? Yes / No

5.1. Will substances with any of the following properties be used during instruction: flammability, toxicity, corrosivity, reactivity, registered pesticide, legally controlled, or other characteristics with the potential to cause harm or injury? □ / ☑

5.2. Will any physical hazards be present during instruction? (e.g., machines that need safety guards; razor blades or syringes; compressed gases, etc.). □ / ☑

5.3. Will any biological hazards be present during instruction? (e.g., handling animals (rabies or hantavirus); cultures or stocks of infectious agents (fungal spores, viruses, bacteria, etc.). □ / ☑

5.4. Will any radiation hazards be present during instruction? (e.g., radioisotopes, X-rays, ultraviolet rays, lasers, etc.). □ / ☑

5.5. Will any electrical equipment that, due to its design, location, or method of use, pose any threat to safety during instruction? (Give considerable thought to electrical use outdoors, or any potentially wet location.). □ / ☑

5.6. Will there be any personal safety issues related to the class? (e.g., due to time of day or location, at the end of any organized class exercise, will students be in danger of physical assault, etc.). □ / ☑

5.7. Will any students be driving official state or research sponsored land or water vehicles during any class or instructional exercise? □ / ☑

5.8. Will any type of personal protective equipment be necessary during class exercises? (e.g., hard-hats, eye/face protection, hearing protection, hand/foot protection, lab coat, visibility clothing, etc.) □ / ☑

If the answer was "Yes" to any of the HEALTH AND SAFETY questions, please explain:

For lab and field courses to which all answers are "no", you should explain that here, also. Normally, we would expect some safety precautions for such courses.
6. Coordination and Consultation

Emails/letters, as noted below and attached to this proposal, or signatures below, indicate that the affected departments, programs or units have been notified of this proposal and have had an opportunity to assess the impact of the proposal on their respective units.

Affected Academic Department(s) or Program(s) – other than the sponsoring department:

Department/Program 1
Chair Signature

Name of Chair/Program Director
Date ________________ Or letter attached □

Department/Program 2
Chair Signature

Name of Chair/Program Director
Date ________________ Or letter attached □

Department/Program 3
Chair Signature

Name of Chair/Program Director
Date ________________ Or letter attached □

[If more than three Departments/Programs, please continue on a separate page]

Other Units:

Associate Provost for Instruction & Dean of the Graduate School (for Gen Ed courses only)

Date ________________ Or letter attached □

Registrar
Date ________________ Or letter attached □

Library Director
Date ________________ Or letter attached □

Computing and Network Services
Date ________________ Or letter attached □

Physical Plant
Date ________________ Or letter attached □

Forest Properties
Date ________________ Or letter attached □

Environmental Health and Safety
Date ________________ Or letter attached □
7. Proposer Information and Sponsoring Department Chair Affirmation:

Contact Person:

Name: Cynthia Downs  
Department: Environmental and Forest Biology

Email: cjdowns@esf.edu  
Phone: 314-470-6806

This proposal has been reviewed and approved by the sponsoring Department. Affected departments have been notified and given the opportunity to provide feedback. Department resources are or will be made available to support the course, or a plan is in place to meet the resource needs as identified in the Institutional Impacts section of this proposal (see Section 4, above).

Name: Melissa Fierke
Date: ____________________________

Signature: ________________________  
Department Chair (or designated curriculum representative)

Or letter attached □

8. Approvals:

Curriculum Committee
Date

Faculty Governance
Date

Provost
Date