This course proposal form should be completed when introducing a new course or a revision of an existing course. The proposal will be reviewed by the Committee on Curriculum, or, in the case of minor revisions, will be approved administratively by the Associate Provost for Instruction.

This Course Proposal must be completed according to the guidelines provided in Course Proposal Form – Instructions and Guidance. Please see the last page of Course Proposal Form – Instructions and Guidance, for instructions on how this Course Proposal should be submitted to the Committee on Curriculum for review.

**Date:** 4/27/21

### 1. Course Information:

1.1 Course Prefix and Number: EFB 482
   - **Course Title:** Ornithology
   - *(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 New Course.  
   OR
   ☒ This is a **Major** Course Revision
   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. The course provides key training for students across disciplines in the Department of Environmental Biology, but especially in Conservation Biology and Wildlife Science. Ornithology warrants a free-standing course for the College because birds are diverse and ecologically, environmentally, culturally, and economically important. Birds also are ubiquitous and conspicuous animals that are biological monitors of our environment. The ecology and evolution of birds re-inforces foundational concepts taught in General Biology (EFB 101 to 104), Diversity of Life (EFB 210 and 211), General Ecology (EFB 320), and Principles of Evolution (EFB 311) for students across the College. There is no Ornithology course taught at Syracuse University. The course needs revisions because 1) it is being switched to Spring semester (it was Fall in the prior course description on record), 2) the description has not been updated since 2004, and 3) there is a new instructor. Learning outcome & course content are revised to reflect changes in instructor approach & to broaden taxonomic and geographic scope.

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. General Ecology EFB 320- foundational course for upper level study of birds

2.3 Explain the impact of this course in meeting the goals and outcomes of other Departments/programs (if any). This course fulfills a directed elective requirement for the Environmental Education & Interpretation Major in the Environmental Studies Department.

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. NA

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? 1 instructor and 1 graduate teaching assistant per 30 students; graduate TAs are expected to guide weekend field trips, so 2 are needed to accommodate needs on weekend trips.

2.6 What Department (or extra-Department) resources are or will be made available to support the course or course revision? None

2.7 Anticipated Enrollment (enter where applicable)

<table>
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<tr>
<th>Semester</th>
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<tr>
<td>Fall Semester:</td>
<td></td>
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<tr>
<td>Spring Semester:</td>
<td>60</td>
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<tr>
<td>Summer Semester:</td>
<td></td>
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</tbody>
</table>

2.8 Anticipated frequency of class meetings. 3x per week lecture (3 hrs), lab once/week (3 hrs)
3. DETAILED COURSE DESCRIPTION

3.1 COURSE IDENTIFICATION AND FORMAT:

3.1.1 Course Prefix and Number: EFB 482
3.1.2 Course Name: Ornithology
3.1.3 Credit Hours: 4
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: 6
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) General Ecology, EFB320

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 ☒.
   b. Is this an elective course within your department? No ☐ Yes ☒.
   c. Is enrollment in this course restricted? No ☐ Yes ☒.
      If Yes, please explain: Junior-Senior standing, or instructor permission to maintain low faculty to student ratios for field instruction.
   d. Are other ESF or SU courses similar or identical to this course? No ☐ Yes ☒.
      If Yes, please identify the courses:
   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. After completing this course the student will be able to:

1. explain the evolution, ecology, behavior, taxonomy, and population dynamics of birds, with an emphasis on the birds of eastern North America,

2. describe the Families of birds in North America including their taxonomy, sexing and aging, plumage, and morphology; and identify a sample of North American birds by sight and sound.

3. describe conservation and management that help fulfill the annual life-cycle needs of North American birds,
4. conduct scientific observation, identification, surveying, and other techniques used in bird study, and

5. apply available scientific literature and other acceptable resources (e.g., Birds of North America) to investigate current scientific topics pertaining to birds.

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.

Diversity of Birds
Bird Evolution
Feathers and Flight
Bird Physiology
Bird Behavior and Communication
Annual Cycles of Birds
Bird Migration and Navigation
Bird Mating Systems
The Nesting Season
Hatching, Brooding, Fledging
Bird Population Dynamics
Species and Speciation
Conservation and Management
Identification of Birds
Banding and Surveying of Birds
Application of Scientific Literature to Bird Study, Conservation, and Management

3.5 INSTRUCTIONAL METHODS:

Identify the methods used to meet the course outcomes, as well as the principal instructional methods. Format: 3 hours of lecture and discussion each week; 45 total hours of laboratory instruction distributed among regularly scheduled 3-hour labs and periodic weekend field trips. Field trips involve expenses for students. Laboratory sections are limited to 30 students each.

Materials: Textbook, field guide, and binoculars are student requirements
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 482. Ornithology 4 credit hours

Three hours of lecture and discussion, 3 hours of laboratory/field trip per week including weekend field trip experiences. Study of the evolution, ecology, behavior, taxonomy, populations, and breeding biology of the birds of North America. The course also offers exposure to the life histories and current topics of conservation and management of birds worldwide. Lecture, laboratory, and field trips. Spring. Prerequisites: General Ecology.

3.7 COURSE HISTORY:

Provide the dates of prior approval of this course, and its revision history. This course, and EFB 483 (Mammals Diversity) replace the former EFB 483, Birds and Mammals. This course was taught in Fall 2002 and Fall 2003 as a Special Topics course with an enrollment of about 28 students each year. Approved as EFB 482 (Ornithology) in Fall 2004. Enrollment in 2019 was 52, 61 in 2020, and 59 in 2021.

3.7.1 Relationship to current ESF courses

This course is replacing a current ESF course [ ] YES [x] 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:

Classroom resources (e.g. physical facilities in a laboratory, lecture hall, flexible space, academic computing):
Classroom space in the Roosevelt Wild Life Collection in Gateway

Technology Resources:
Computer with screen for streaming lectures and guest lecturers

Computing Resources (software licensing, hardware, access):
Same as above

Library Resources (subscriptions, services):
https://birdsoftheworld.org/bow/home

Transportation Requirements (budget, fees, fleet vehicles):
up to 4 trips per semester to accommodate 60 students

Forest Properties or Field Practicum Facilities:
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. 5.1 - The class dissects pigeons packed with preservative (formalin) from a laboratory supply company during one laboratory exercise. Pigeons are rinsed and soaked again before use by students. Students are required to use latex or nitrile gloves, glasses, face coverings, and closed toed shoes while performing dissections. 5.2 Students are required to use simple dissection tools during the lab dissection. The instructor and/or trained graduate student teaching assistants demonstrate a dissection as well as proper handling and safety techniques for dissecting equipment. 5.3 Birds used in class may include salvaged birds by NY Department of Environmental Conservation (DEC). Specimens used will be those found dead by DEC from malnutrition or those hit by vehicles. In lab and on field trips, we may capture and handle birds for banding and demonstrate collection of biological data (e.g., feather samples for isotopes or blood for toxicology, genetics, etc.). These activities will be conducted by the instructor and/or graduate teaching assistants under an IACUC protocol (IACUC#:191201) and USFWS Master Bander Permit (Federal Bird Banding Permit #23928) that will provide students the opportunity to observe these techniques. Students are
required to use latex or nitrile gloves, glasses, face coverings, and closed toes shoes when near birds.  
5.4 None. 5.5. None. 5.6. None. 5.7. For field trips, vehicles are used, which may be driven by the 
instructor or graduate teaching assistants. 5.8 Students are required to use latex and nitrile gloves, 
glasses, face covering, lab coats and closed toed shoes when near birds. Dead specimens will be 
disposed of in accordance with SUNY ESF Health and Safety approved protocols. A sharps container 
and first aid kit will be available in the laboratory.
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:**

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<thead>
<tr>
<th>Department/Program 1</th>
<th>Name of Chair/Program Director</th>
<th>Or letter attached □</th>
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<td>Chair Signature</td>
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<td>Department/Program 2</td>
<td>Name of Chair/Program Director</td>
<td>Or letter attached □</td>
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<td>Chair Signature</td>
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<tr>
<td>Department/Program 3</td>
<td>Name of Chair/Program Director</td>
<td>Or letter attached □</td>
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<td>Chair Signature</td>
<td>Date</td>
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(if more than three Departments/Programs, please continue on a separate page)

**Other Units:**

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<th>Associate Provost for Instruction &amp; Dean of the Graduate School (for Gen Ed courses only)</th>
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<td>Date</td>
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<tr>
<td>Registrar</td>
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<td>Computing and Network Services</td>
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<td>Environmental Health and Safety</td>
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<td>Date</td>
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7. Proposer Information and Sponsoring Department Chair

Affirmation:

Contact Person:
Name: Michael L. Schummer _________________________________
Department: EFB _________________________________
Email: mlschumm@esf.edu _________________________________
Phone: 585 319 6763 _____________________________

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: __________________________________________ Date: ______
Department Chair (or designated curriculum representative)
Signature: ___________________________ Or letter attached □
Department Chair (or designated curriculum representative)

8. Approvals:

________________________________________  __________________
Curriculum Committee       Date

________________________________________  __________________
Faculty Governance       Date

________________________________________  __________________
Provost                 Date