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: 12/11/2017

1. Course Information:

1.1 Course Prefix and Number: SRE 498
Course Title: Independent Study in Sustainable Energy Management
(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. There currently is no course with a SRE prefix that students in the Sustainable Energy Management program can enroll to obtain academic credit while completing an independent study.

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. N/A

2.3 Explain the impact of this course in meeting the goals and outcomes of other Departments/programs (if any). N/A

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? Adequate staffing in place

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)

   - Fall Semester: 1-2
   - Spring Semester: 1-2
   - Summer Semester: 1-2

2.8 Anticipated frequency of class meetings. N/A
3. DETAILED COURSE DESCRIPTION

3.1 COURSE IDENTIFICATION AND FORMAT:

3.1.1 Course Prefix and Number: SRE 498
3.1.2 Course Name: Independent Study in Sustainable Energy Management
3.1.3 Credit Hours: 1-6
3.1.4 Semester (check all that apply): Fall ☑ Spring ☑ Summer ☑
3.1.5 Format (check as appropriate): Lecture ☑ Online ☑ Lab ☑ Field ☑
Other ☑ (explain) Independent study
3.1.6 Contact hours per week: Varies depending on research project
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) Cumulative GPA of at least 2.50 and approval of the adviser and instructor. Professor consent is required to register for this course.

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:
   d. Are other ESF or SU courses similar or identical to this course? No ☐ Yes ☑
      If Yes, please identify the courses: Every department has a similar independent study opportunity for students in all majors
   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 should be able to: (1) Formulate research questions; (2) Plan research methodology and design compatible with research questions posed; (3) Analyze and interpret data to answer research questions posed; (4) Use literature and other resources to develop a critical literature review of a research topic; and (5) Communicate research findings

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. This course is designed to enable advanced undergraduates to undertake mentored, self-directed work to explore a research topic of interest to them and
communicate the results. The research focus will be determined by the qualifications and interests of the student and the faculty member who agrees to be the sponsor and mentor.

3.5 INSTRUCTIONAL METHODS:

Identify the methods used to meet the course outcomes, as well as the principal instructional methods. Tutorial meetings, discussions and critiques will be scheduled as a part of the course.

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.

SRE 498 Independent Research in Sustainable Energy Management (1-6)

Independent research or study in sustainable energy management/forestry for selected undergraduate students. Selection of subject area, nature of the research or study, and number of credit hours determined by student in conference with appropriate faculty member; initiative in taking SRE 498 rests with the student. Final written report is required for record. Fall, Spring and Summer.

Prerequisite: Cumulative GPA of at least 2.50 and approval of the adviser and instructor. Professor consent is required to register for this course.

3.7 COURSE HISTORY:

Provide the dates of prior approval of this course, and its revision history. N/A

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:
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.

<table>
<thead>
<tr>
<th>Staffing needs:</th>
<th>current staffing levels adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom resources (e.g. physical facilities in a laboratory, lecture hall, flexible space, academic computing):</td>
<td>Network / internet access</td>
</tr>
<tr>
<td>Technology Resources:</td>
<td>Dependent on research project</td>
</tr>
<tr>
<td>Computing Resources (software licensing, hardware, access):</td>
<td>Network / internet access</td>
</tr>
<tr>
<td>Library Resources (subscriptions, services):</td>
<td>Access to existing print and digital Moon library holdings. Student internet access. Study areas</td>
</tr>
<tr>
<td>Transportation Requirements (budget, fees, fleet vehicles):</td>
<td>Dependent on research project</td>
</tr>
<tr>
<td>Forest Properties or Field Practicum Facilities:</td>
<td>Dependent on research project</td>
</tr>
</tbody>
</table>
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: Each project will pose different health and safety concerns. All of the potential hazards above could be encountered by a student on any given project. Therefore it will be the responsibility of the instructor to provide a safe environment and instruct the student about the safety rules. It is the responsibility of the student to follow all the safety rules.

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

Department/Program 2
Name of Chair/Program Director
Chair Signature
Date
Or letter attached □

Department/Program 3
Name of Chair/Program Director
Chair Signature
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: Robert Malmsheimer ____________________________
Department: 12/11/2017 ____________________________

Email: ____________________________ Phone: ____________________________

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: Eddie Bevilacqua ____________________________
Date: 12/11/2017 ______

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