

Eastern Illinois University

**NEW/REVISED COURSE PROPOSAL FORMAT**

(Approved by CAA on 9/29/11 and CGS on 10/18/11, Effective Fall 2011)

This format is to be used for all courses submitted to the Council on Academic Affairs and/or the Council on Graduate Studies.

**Please check one:**      ☒ New course      ☐ Revised course

**PART I: CATALOG DESCRIPTION**

**1. Course prefix and number, such as ART 1000:**

CERE 5953

**2. Title (may not exceed 30 characters, including spaces):**

Sustainable Energy Research

**3. Long title, if any (may not exceed 100 characters, including spaces):**

N/A

**4. Class hours per week, lab hours per week, and credit [e.g., (3-0-3)]:**

0-3-3

**5. Term(s) to be offered:**    ☒ Fall    ☒ Spring    ☒ Summer    ☐ On demand

**6. Initial term of offering:**    ☒ Fall    ☐ Spring    ☐ Summer    **Year:**    2012

**7. Course description:**

Students are engaged in research of energy and sustainability under the guidance of a graduate faculty. (May be repeated. However, only three (3) hours will be applied toward the requirement of the degree.)

**8. Registration restrictions:**

**a. Equivalent Courses**

- **Identify any equivalent courses** (e.g., cross-listed course, non-honors version of an honors course).  
N/A
- Indicate whether coding should be added to Banner to restrict students from registering for the equivalent course(s) of this course.    ☐ Yes    ☒ No

**b. Prerequisite(s)**

- **Identify the prerequisite(s)**, including required test scores, courses, grades in courses, and technical skills. Indicate whether any prerequisite course(s) MAY be taken concurrently with the proposed/revised course.

Admission to the Master of Science in Sustainable Energy degree program.

- Indicate whether coding should be added to Banner to prevent students from registering for this course if they haven't successfully completed the prerequisite course(s). ☐ Yes ☒ No

If yes, identify the minimum grade requirement and any equivalent courses for each prerequisite course:

N/A, See above.

**c. Who can waive the prerequisite(s)?**

☒ No one ☐ Chair ☐ Instructor ☐ Advisor ☐ Other (Please specify)

**d. Co-requisites** (course(s) which MUST be taken concurrently with this one):

N/A

**e. Repeat status:** ☐ Course may not be repeated.

☒ Course may be repeated once with credit.

Please also specify the limit (if any) on hours which may be applied to a major or minor.

The course may be repeated as students wish. However, only three (3) hours will be applied toward the requirement of the degree.

**f. Degree, college, major(s), level, or class** to which registration in the course is restricted, if any:

Admission to the Master of Science in Sustainable Energy degree program.

**g. Degree, college, major(s), level, or class** to be excluded from the course, if any:

N/A

**9. Special course attributes** [cultural diversity, general education (indicate component), honors, remedial, writing centered or writing intensive]

N/A

**10. Grading methods** (check all that apply): ☐ Standard letter ☒ CR/NC ☐ Audit ☐ ABC/NC  
("Standard letter"—i.e., ABCDF—is assumed to be the default grading method unless the course description indicates otherwise.)

**Please check any special grading provision that applies to this course:**

☐ The grade for this course will not count in a student's grade point average.

☐ The credit for this course will not count in hours towards graduation.

**If the student already has credit for or is registered in an equivalent or mutually exclusive course, check any that apply:**

☐ The grade for this course will be removed from the student's grade point average if he/she already has credit for or is registered in  (insert course prefix and number).

☐ Credit hours for this course will be removed from a student's hours towards graduation if he/she already has credit for or is registered in  (insert course prefix and number).

**11. Instructional delivery method:** (Check all that apply.)

☐ lecture   ☐ lab   ☐ lecture/lab combined   ☒ independent study/research  
☐ internship   ☐ performance   ☐ practicum or clinical   ☐ study abroad  
☐ Internet   ☐ hybrid   ☐ other (Please specify)

**PART II: ASSURANCE OF STUDENT LEARNING**

**1. List the student learning objectives of this course:**

- a. If this is a general education course, indicate which objectives are designed to help students achieve one or more of the following goals of general education and university-wide assessment:
- EIU graduates will write and speak effectively.
  - EIU graduates will think critically.
  - EIU graduates will function as responsible citizens.
- b. If this is a graduate-level course, indicate which objectives are designed to help students achieve established goals for learning at the graduate level:
- Depth of content knowledge
  - Effective critical thinking and problem solving
  - Effective oral and written communication
  - Advanced scholarship through research or creative activity

Upon the completion of this course,

1. Students will demonstrate advanced scholarship through guided research.
2. Students will be able to demonstrate a depth of knowledge in the specific area of research.
3. Students will be able to design and implement a plan of research in the field of sustainable energy.
4. Students will be able to analyze the collected data critically.
5. Students will be able to write an effective report based upon the research data and facts.
6. Students will be able to present the data and the report to an informed audience.

**2. Identify the assignments/activities the instructor will use to determine how well students attained the learning objectives:**

Written Report: A research project report will consist of (if applicable): purpose of the research, literature review, hypothesis, assumptions, limitations, delimitations, experimental conditions/instrument, research methods, organized data, analysis of results, conclusions, and cited references.

Oral Presentation: Students must successfully present the research results to a committee of at least three graduate faculty.

**3. Explain how the instructor will determine students' grades for the course:**

The research report has to be either a published scholarly paper (including conference presentation or proceeding) coauthored with the directing faculty, or deemed publishable as a scholarly paper in the related field by the directing faculty.

The directing faculty will determine the course grade based upon the written report (see above) and oral presentation.

- 4. For technology-delivered and other nontraditional-delivered courses/sections, address the following:**
- Describe how the format/technology will be used to support and assess students' achievement of the specified learning objectives:**
  - Describe how the integrity of student work will be assured:**
  - Describe provisions for and requirements of instructor-student and student-student interaction, including the kinds of technologies that will be used to support the interaction (e.g., e-mail, web-based discussions, computer conferences, etc.):**

N/A

- 5. For courses numbered 4750-4999, specify additional or more stringent requirements for students enrolling for graduate credit. These include:**
- course objectives;**
  - projects that require application and analysis of the course content; and**
  - separate methods of evaluation for undergraduate and graduate students.**

N/A

- 6. If applicable, indicate whether this course is writing-active, writing-intensive, or writing-centered, and describe how the course satisfies the criteria for the type of writing course identified. (See Appendix \*.)**

N/A

### **PART III: OUTLINE OF THE COURSE**

**Provide a week-by-week outline of the course's content. Specify units of time (e.g., for a 3-0-3 course, 45 fifty-minute class periods over 15 weeks) for each major topic in the outline. Provide clear and sufficient details about content and procedures so that possible questions of overlap with other courses can be addressed. For technology-delivered or other nontraditional-delivered courses/sections, explain how the course content "units" are sufficiently equivalent to the traditional on-campus semester hour units of time described above.**

Sustainable Energy Research will be conducted as an independent and supervised study on issues or problems related to energy and sustainability. The following tasks are recommended:

- Identifying issue(s), problem(s) or opportunities related to energy and sustainability
- Literature research
- Design of research methods and plan
- Execution of the research plan and data collection
- Data analysis
- Report writing

- Drawing conclusions and or make recommendations
- Presentation of results and findings to the committee.

Students will start the research at the first semester when entering the program, and continue working toward the end of the program. Oral presentation will take place and a grade will be assigned on the last semester when students are graduating.

Students and the directing faculty may decide the allocation of time, as each individual student and project may vary.

#### **PART IV: PURPOSE AND NEED**

**1. Explain the department's rationale for developing and proposing the course.**

- a. If this is a general education course, you also must indicate the segment of the general education program into which it will be placed, and describe how the course meets the requirements of that segment.**
- b. If the course or some sections of the course may be technology delivered, explain why.**

This course provides students with required research experience in energy and sustainability, as a part of the Master of Science in Sustainable Energy degree.

**2. Justify the level of the course and any course prerequisites, co-requisites, or registration restrictions.**

This course is a part of the Master of Science in Sustainable Energy degree program.

**3. If the course is similar to an existing course or courses, justify its development and offering.**

- a. If the contents substantially duplicate those of an existing course, the new proposal should be discussed with the appropriate chairpersons, deans, or curriculum committees and their responses noted in the proposal.**
- b. Cite course(s) to be deleted if the new course is approved. If no deletions are planned, note the exceptional need to be met or the curricular gap to be filled.**

N/A

**4. Impact on Program(s):**

- a. For undergraduate programs, specify whether this course will be required for a major or minor or used as an approved elective.**
- b. For graduate programs, specify whether this course will be a core requirement for all candidates in a degree or certificate program or an approved elective.**

**If the proposed course changes a major, minor, or certificate program in or outside of the department, you must submit a separate proposal requesting that change along with the course**

**proposal. Provide a copy of the existing program in the current catalog with the requested changes noted.**

This course is required for all candidates of Master of Science in Sustainable Energy degree program.

## **PART V: IMPLEMENTATION**

### **1. Faculty member(s) to whom the course may be assigned:**

**If this is a graduate course and the department does not currently offer a graduate program, it must document that it employs faculty qualified to teach graduate courses.**

A graduate faculty from one of the contributing departments will be assigned to direct the research, depending upon the students background and interests. Upon the student's request, a faculty from the department other than the student's undergraduate background may be assigned in order to encourage students to cross disciplines.

### **2. Additional costs to students:**

**Include those for supplemental packets, hardware/software, or any other additional instructional, technical, or technological requirements. (Course fees must be approved by the President's Council.)**

N/A

### **3. Text and supplementary materials to be used (Include publication dates):**

None. However, library resources are needed from the institution to support the student research.

## **PART VI: COMMUNITY COLLEGE TRANSFER**

**If the proposed course is a 1000- or 2000-level course, state either, "A community college course may be judged equivalent to this course" OR "A community college course will not be judged equivalent to this course." A community college course will not be judged equivalent to a 3000- or 4000-level course but may be accepted as a substitute; however, upper-division credit will not be awarded.**

N/A

## **PART VII: APPROVALS**

**Date approved by the Center for Clean Energy Research and Education:** November 14, 2011

**Date approved by the college curriculum committee:** N/A

**Date approved by the Honors Council (*if this is an honors course*):** N/A

**Date approved by CAA:**      **CGS:**

\*In **writing-active courses**, frequent, brief writing activities and assignments are required. Such activities -- some of which are to be graded -- might include five-minute in-class writing assignments, journal keeping, lab reports, essay examinations, short papers, longer papers, or a variety of other writing-to-learn activities of the instructor's invention. Writing assignments and activities in writing-active courses are designed primarily to assist students in mastering course content, secondarily to strengthen students' writing skills. In **writing-intensive courses**, several writing assignments and writing activities are required. These assignments and activities, which are to be spread over the course of the semester, serve the dual purpose of strengthening writing skills and deepening understanding of course content. At least one writing assignment is to be revised by the student after it has been read and commented on by the instructor. In writing-intensive courses, students' writing should constitute no less than 35% of the final course grade. In **writing-centered courses** (English 1001G, English 1002G, and their honors equivalents), students learn the principles and the process of writing in all of its stages, from inception to completion. The quality of students' writing is the principal determinant of the course grade. The minimum writing requirement is 20 pages (5,000 words).

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