COURSE INFORMATION FORM

DISCIPLINE: EHSS
COURSE TITLE: Concepts of Sustainability, Recycling and Pollution Prevention
CR.HR 3 LECT HR 3 LAB HR CLIN/INTERN HR CLOCK HR

CATALOG DESCRIPTION
This course is presented to familiarize EHS students with options available to minimize waste, recycle, or other energy conserving concepts in the workplace. Information is presented to present ways of encouraging sustainability through better business practices. Emphasis is placed upon economic considerations for recovery and recycling materials used in industry, and methods to reduce materials placed in landfills. Key topics are given to show methods of making money from materials that cost to be destroyed.

PREREQUISITES
EHSS 101

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:
1. List examples of waste in the workplace.
2. Define the difference between non-regulated/regulated hazardous wastes.
3. List and describe examples of conservation of resources.
4. Discuss assessment and feasibility analysis.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>ESO</th>
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PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Students will demonstrate the ability to apply foundational skill in an industrial setting, safely and to industry guidelines.
2. Students will think critically and apply problem-solving skills.
3. The program will graduate individuals who exhibit competence in the entry-level skills of technical profession environmental health and safety technology.
4. The program will graduate individual who can interact and communicate with managerial, supervisory, labor and external public using a combination of skills for a clear exchange of ideas and information.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Assignments, (1, 4)
2. Written examinations, (1-4)
3. Student participation and in-class discussions, (1-4)
COURSE OUTLINE FORM

DISCIPLINE  
EHSS

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Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. History
   A. Government Programs for Reducing Pollution
   B. Industry Programs for Reducing Pollution

II. Reduction
   A. Energy Use
   B. Water and other Natural Resources
   C. Raw Materials
   D. Waste Creation

III. Recycling
   A. Recycling Programs for Solid Waste
   B. Waste and Material Exchanges and Recyclers

IV. Treatment to Reduce Disposal

V. Successful Pollution Prevention Program
   A. Environmental Management Systems
   B. Economic Evaluation in Pollution Prevention Programs
   C. Performing a Pollution Prevention Assessment

VI. Examples of Sustainability Activities in Industry*
   A. Machining and Other Metalworking Operations
   B. Metal Plating and Surface Finishing
   C. Iron and Steel
   D. Aluminum
   E. Solvents Used for Cleaning, Refrigeration, Firefighting, and Other Uses
   F. Pharmaceuticals
   G. Pulp and Paper Industry
   H. Painting and Coating
   I. Removal of Paint and Coatings
   J. Petroleum Exploration and Refining
   K. Motor Oil and Antifreeze

VII. Cost Assessment and Feasibility analysis