

## Master Syllabus

### IND 2140 - Sustainable Design

**Division:** Liberal Arts, Communication and Social Sciences

**Department:**

**Credit Hour Total:** 4.0

**Lecture Hrs:** 2.0 **Lab Hrs:** 4.0

**Prerequisite(s):** CAT 1101

**Date Revised:** October 2012

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#### Course Description:

Course includes discussions of environmental movements, designer responsibility, legislation, LEED certification selection and application of lighting fixtures. Students will integrate sustainable strategies to develop design solutions for a variety of small-scale projects. Two classroom, four lab hours per week.

#### General Education Outcomes:

- Oral Communication Competency
- Written Communication Competency
- Critical Thinking/Problem Solving Competency
- Values/Citizenship/Community Competency
- Computer Literacy Competency
- Information Literacy Competency

#### Course Outcomes:

##### Sustainability and environmental science

Identify environmental science concepts of sustainability with appropriate terminology, and its role in economics.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Performance appraisals

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Written surveys and/or questionnaires

**Performance Criteria:** Score at least 70% in all areas of a rubric

##### Environment and people

Identify the physical, psychological and sociological relationship between the built environment and people.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Performance appraisals

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Written surveys and/or questionnaires

**Performance Criteria:** Score at least 70% in all areas of a rubric

##### Leadership in Energy and Environmental Design (LEED)

Identify the assessment method, categories and requirements associated with LEED.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Performance appraisals

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Written surveys and/or questionnaires

**Performance Criteria:** Score at least 70% in all areas of a rubric

##### Sustainable strategies

Identify sustainable strategies in all phases of the design process.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Performance appraisals

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Written surveys and/or questionnaires

**Performance Criteria:** Score at least 70% in all areas of a rubric

##### Lighting design techniques

Describe lighting design techniques, vocabulary, selection, application, and quality in residential and non-residential interiors.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Performance appraisals

**Performance Criteria:** Score at least 70% in all areas of a rubric

**Assessment Method:** Written surveys and/or questionnaires  
**Performance Criteria:** Score at least 70% in all areas of a rubric

**Outline:**

Lighting as a design element  
Lighting vocabulary, selection, application, quality  
Environmental issues  
Regulations, programs and organizations  
Building and product assessment standards  
Sustainable strategies for the consumption of natural resources  
Sustainable strategies for indoor environmental quality  
Sustainable strategies for commercial and residential interiors  
Sustainable strategies for design process  
Renewable/responsible interior finishes