

Master Syllabus

IND 2140 - Sustainable Design

Division: Liberal Arts, Communication and Social Sciences

Department: Design

Credit Hour Total: 4.0

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

Prerequisite(s): CAT 1101

Date Revised: October 2012

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

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