Department: Architecture

Course Number and Title: ARCH 084 - Sustainability in Landscape Architecture

Length of course in weeks: 16
Units: 3
Total Class Hours/Week: 5
Lecture Hours/Week: 2
Lab Hours/Week: 3

Grade Type: Grade/Credit/No Credit

Catalog Description: This course covers the topic of sustainability in landscape architectural design studio. Students have opportunities to study sustainable environmental and visual phenomena through landscape architectural design exercises. Additional topics include Firescaping, green roof, plant restoration, habitat restoration, and Brownfield. Students have opportunities to apply sustainable design to a specific site.

Schedule Description: This course covers the topic of sustainability in landscape architectural design studio. Students have opportunities to study sustainable environmental and visual phenomena through landscape architectural design exercises.

Prerequisite:
ARCH 075, Landscape Design II

Course Outcomes: Student Learning Outcomes

Outcome: Develop design solutions appropriate to the given site(s) and environmental context.
Assessment: Final project presentation.

Course Objectives: Upon completion of this course the student should be able to:

1. Formulate a set of cartoons demonstrating the drawings necessary to construct a complex site.
2. Integrate advanced design theory with landscape architectonic problems.
3. Comprehend properties of construction materials and their qualitative input to landscape design.
4. Develop the ability to select appropriate structural systems for different sustainable design problems.
5. Develop design solutions appropriate to the given site(s) and environmental context.
6. Use professional techniques in preparing a presentation for preliminary design concepts to clients.
Assessment: Students in this course will be graded based on the following four categories:

1. **Writing Assignments**: projects description
2. **Problem Solving Demonstrations**: creativity growth
3. **Skill Demonstrations**: case studies
4. **Examinations**: final project presentation (a set of landscape architectural drawings and rendering)

Repeatability: 1 time

Methods of Instruction: Lecture & Lab

**Lecture Content:**

1. Landscape and Sustainability: An Overview 7.00 %
2. The Ethics of Sustainability 8.00 %
3. The Landscape of Sustainable Economics 7.00 %
4. The Social Dimensions of Landscape Sustainability 7.00 %
5. International Policies and Landscape Protection 7.00 %
6. Landscape and Sustainability at the National and Regional Scales 8.00 %
7. Landscape Planning at the Regional Scale 7.00 %
8. Multi-Functional Landscapes: Conceptual and Planning Issues for the Countryside 7.00 %
9. Landscape, Sustainability and the City 7.00 %
10. Resources: The Raw Materials of Landscape 7.00 %
11. The Practice of Sustainable Landscape Architecture 7.00 %
12. The Community and the Landscape Professional 7.00 %
13. Sustainable Landscape Management 7.00 %
14. Visions of Sustainability 7.00 %

**Lab Content:**

1. Explore various aspects of the site in detail through design studies, such as: structural systems, ecological systems, relevant landscape details, site finishes, etc. Students formally present their work at three phases: conceptual design, design development, and final presentation. Instructor approval is required at the completion of each phase before progressing to the next phase. Presentations include landscape architectural drawings (hand and/or computer) and or models (physical or/and computer). 50.00 %

2. Research, the specific site type assigned, and present case-studies of a similar site that is architecturally significant. 50.00 %

**Critical Thinking**: Identify sustainability requirements and apply them to a complex unified design concept.
College Level Required Reading, Writing, and other Outside-of-Class Assignments:
Over a 16 week presentation of the course, three hours per week are required for each unit of credit. Two hours of independent work done out of class are required for each hour of lecture. Outside of the regular class time the students in this class will be doing the following outside of class:

- **Study**: 1.00 additional hour
- **Problem solving activity or exercise**: 0.50 additional hour
- **Practice Skills**: 1.00 additional hour
- **Written work**: 0.50 additional hour
- **Required reading**: 1.00 additional hour

Textbooks: