



**PLSC 280 Fundamentals of Sustainable Landscape Design
Spring 2023**

M: 10:20-11:10

WF: 10:20-12:20 – *Note class runs longer Wednesday and Friday*
Environment and Landscape Lab (ELL) - Room 117

Course Credit Hours: 3

Faculty Contact Information

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Teaching Assistant Contact Information

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Office Hours: by appointment

Welcome Statement:

I want to welcome you to PLSC 280. Design is challenging, intellectually stimulating, creative, and I hope you'll agree, above all fun! While my job is to push you, challenge you, potentially frustrate you, and break down some of your previously held assumptions about the world around you, I want to trust the process and know that I will be here to encourage you, to give you critical feedback, and to guide you on the path.

TEACHING PHILOSOPHY:

I believe that education should be fully inclusive, accessible, flexible in modality, and responsive to global needs. I believe that knowledge acquisition is an active pursuit. I believe that education is empowering and that those of us fortunate enough to be able to pursue education have an obligation to our global community to use our knowledge to make a difference.

Course Description:

Introduction to contemporary principles and processes of landscape design including site analysis, concept development and design representation. Theoretical understanding and practical knowledge are exercised through site planning and design projects that explore topography, hydrology, ecology and the materials of designed landscapes.

Course Information:

PLSC 280 advances the centrality of landscape to the organization, function, and equity of urban and post-industrial/post-production landscapes and calls for radically different approaches to infrastructure and landscape construction. Embracing natural systems as models of functionality, form, and process; design explorations employ softness, porosity, and change over time as means of achieving high performance sustainable, equitable, and resilient landscapes.

The course emphasizes experiential learning through design, research, collaborative problem solving, and analog – digital – analog cyclical workflows.

Sustainable landscape design requires more than a vocational knowledge of technical specifications. Thoughtful consideration of environmental history, community health, social equity and justice, and ecosystem resilience will enhance our understanding of design, its impact on landscape performance, natural resource management, and the experiential qualities of the built environment.

COURSE APPROACH:

PLSC 280 is a course that will advance through a series of projects and exercises designed to develop skills and reinforce course content fundamental to the analysis, design, and development of design at a variety of scales in the landscape. Readings and website references will be assigned for enrichment and to gain a broader perspective on landscape design. The design projects are intended to measure graphic and design skills, and seek a total synthesis and comprehension of course material.

GRAPHIC EXERCISES:

Exercises will be assigned during the design studio. The exercises are intended for sequential development of skills, and will be assigned a grade on a basis of completeness, craft, and demonstrated effort.

PRACTICUM: The Charrette

At least one design charette will be given to evaluate progress in building, design flexibility, collaborative work, and graphic skills. Additionally, this exercise will serve to evaluate student's comprehension of course material and techniques.

DESIGN PROJECTS:

Design projects are the foundation of studio and will allow students to explore sustainable landscape design graphically, in narrative, with experiential richness, supported by technical specifications. These assignments will be analytical in nature and will require you to apply knowledge and skills developed during previous units in the course.

Course Structure Includes:

- Design thinking and process, formal and spatial vocabularies
- Studio culture, including presentation, critique and review process
- Ecological systems, ecosystem services and the consequence of design decisions
- Design of vegetative systems and specification of plant material
- Visualization, drawing, and exploration in relation to sustainable landscape design, construction detail and their applications such as:
 - Topographic Systems
 - Vegetative Systems
 - Hardscape Systems
 - Stormwater Management Systems
 - Biodiversity Enhancement
- Contemporary theory and context
- Application strategies
- Ethics, Social and Environmental Justice, Professional Responsibility
- Creation, implementation, interpretation, and analysis



Image: SCAPE



Image: Ten Eyck Landscape Architects

Student Learning Outcomes/Objectives:

- To develop an understanding of contemporary theory and application related to sustainable, resilient, and ecologically driven landscape design.
- To heighten the student's sense of awareness of the total landscape including the role of the landscape design in stewarding and enhancing environments
- To initiate the development of basic knowledge and skills necessary for the planning of landscape improvements.
- To introduce design and design thinking as a creative problem-solving process and to apply the concepts of art, design, and sustainable practices to site specific projects / assignments.
- To understand the role of allied trades and professions associated with landscape design, and become aware of their interrelationships. (Landscape Architecture, Architecture, Engineering, Forestry, Horticulture, Construction Sciences and Contracting, etc.)
- To learn professional practices including the sharing of ideas, working alone and in teams, and time management.
- To establish a strong studio culture and the fundamentals of design literacy.
- To build upon knowledge acquired from previous coursework and experience.

- To prepare students for the rigors of subsequent design courses.
- To advance dialogs related to professional ethics, environmental and social justice, and the responsibilities of contemporary designed landscapes

COURSE OUTLINE: *These may be intermixed and fluid to meet the needs and progress of the studio*

I. Graphic Communication Skills

- A. Material Representation
- B. Use of Scales
- D. Reading Landscape Documents
- E. Other Related Graphics & Media

II. Technical Skills

- A. Introduction to Landform, Topography, and Site Hydrology
- B. Introduction to Landscape Softscape and Hardscape Materials
- C. Introduction to CADD

III. Design Process and Synthesis

- A. Concept Development
- B. Site Planning and Design
- C. Document Composition



Image: Urban Sketching World



Image: PWP Landscape Architecture

Course Communications:

Interactions between the students and instructor, including submitting assignments, sharing course readings, and media content, will be facilitated through CANVAS. For technical issues, contact the OIT HelpDesk via phone (865) 974-9900 or online at <http://help.utk.edu/>.

LEARNING ENVIRONMENT:

This course will utilize several teaching methods during the course of the semester. These may include: Studio, lectures and demonstrations, self-directed readings, hands-on service and experiential learning, class discussion, professional practice and design criticism through the lens of sustainable, equitable, resilient, and ecologically informed landscape design.

HOW TO BE SUCCESSFUL IN THIS COURSE:

Successful completion of this course entails commitment to class attendance, studying course materials, participation in class discussions and activities. Course grades will be earned through projects, exercises/exams/quizzes, attendance, and participation. It is highly recommended that students read and study course materials in preparation for class and be prepared to ask and answer questions during class.

An additional note: Practice, practice, practice. Whatever techniques we learn, design, drawing, sketching, rendering, etc. will require practice to get good and consistent at. We all like to be good at things and often when that doesn't come easily we avoid those areas. We rationalize our shortcomings and make excuses. I am no different. We all must commit to fully embracing the challenges that design provides us. That is the true path to mastery.

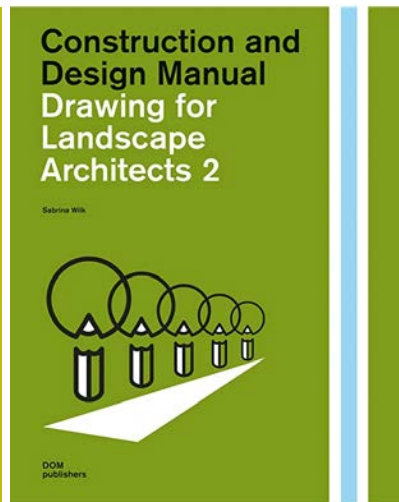
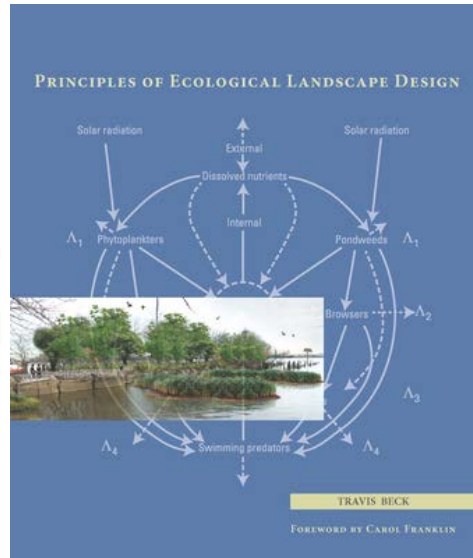
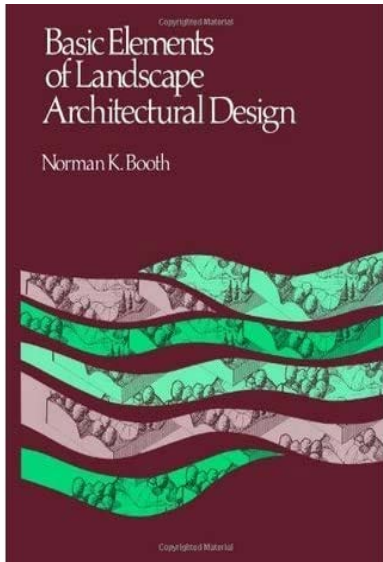
Student's Responsibility

- o Be prepared for all classes
- o Be respectful to the professor
- o Be respectful to classmates

- o Actively contribute to the learning activities in class
- o Abide by the UT Honor Code

Instructor's Responsibility

- o Be prepared for all classes
- o Evaluate all fairly and equally
- o Be respectful of all students
- o Create and facilitate meaningful learning activities
- o Behave according to University codes of conduct



Books to aid you in your studies

**Texts/Resources/Materials:
Required:**

The following list of equipment should be selected and maintained carefully. This list includes the tools basic for landscape designers. It is not complete for all needs, and you will add to it if you pursue a design career. (If you know of someone who has taken this course you may want to see if you can buy or borrow any unused equipment).

- Scale Bars 6 sided 1 each Engineering and Architecture
- 12" and or 18" roll trace paper (White)
- Pens: (2) Pentel Sign Pens
(2) Papermate Flair Medium/ Fine Black
6-Pack Pigma Micron Pens (or Similar), Black, Sizes 005-08
- Sketchbook 5.5" x 8.5"
- Triangles: (1) 10" 30/60/90 plastic with inking edge; (1) 8" 45 deg with inking edge
- Circle Template: 1 (or 2 depending on what is available) plastic circle template(s) with circles from 1/16" to 2-1/4". Do not buy a "landscape template".
- Drafting Dots: 1 box of drafting dots or roll blue painter's tape
- Pencils or lead holders in, 3H, H, 2B, B;
- Eraser (Plastic)
- Paper and notebook for notes
- Dependable access to digital technology (Ex. laptop that can handle AutoCAD and Adobe Creative Cloud)
- 1lb **soft** neutral color modeling clay (Plastalina brand or equivalent)

Optional:

- Pens: Pilot Fineliner, Pilot Razor Point
- Art Gum or kneaded eraser
- Click eraser
- Colored Pencils
- Select markers, AD/Copic/Prismacolor/Sharpies
- Erasing shield
- Case to carry and organize your materials

Required: Use this link to access books and supplemental materials:

<https://libguides.utk.edu/sustainablelandscapearchitecture>

Highly Recommended: *Principles of Ecological Landscape Design*, by Travis Beck
ISBN: 978-1597267021

Basic Elements of Landscape Architectural Design, by Norman K. Booth ISBN:
978-0-88133-478-4

UNIVERSITY OF TENNESSEE | DEPARTMENT OF PLANT SCIENCES
SUSTAINABLE LANDSCAPE DESIGN | PLSC 280 | FUNDAMENTALS OF SUSTAINABLE
LANDSCAPE DESIGN

-*Drawing for Landscape Architects 1: Basic Drawing, Graphics, and Projections (Construction and Design Manual)* Student Edition by Sabrina Wilk (Author)

Foundations of Landscape Architecture Integrating Form and Space Using the Language of Site Design, by Norman K Booth ISBN: 978-0-470-63505-6

Recommended: *Freehand Drawing & Discovery Urban Sketching and Concept Drawing for Designers*, James Richards ISBN 978-1-118-47995-7

Field Sketching and the Experience of Landscape by Janet Swailes ISBN: 9781138013957

Landscape Graphics, Grant W. Reid ISBN 0-8230-7333-5

Sustainable SITES Initiative *SITES v2 Rating System and Scorecard* available free:

<https://www.usgbc.org/resources/sites-rating-system-and-scorecard>

Residential Landscape Architecture Design Process for the Private Residence, by Booth and Hiss ISBN 0-13-775354-3

Readings from selected texts will be made available to students enrolled in the course.

Course Requirements, Assessments and Evaluations:

Grades will be assigned according to a point accumulation format. The grade scale will be based on the number of points accumulated as a percentage of the total possible. The following breakdown and grade scale will be used as a guide; however, circumstances may dictate slight revisions.

Point Breakdown:

In-Class Exercises and/or Quizzes	100 pts
Student Design Projects (2)	100 pts
Sketchbook	100 pts
Midterm	100 pts
Final Exam	100 pts
Attendance, Participation and Respect	100 pts

TOTAL 700 pts

PLEASE NOTE: I do not accept late work. Projects turned in after the deadline will not be graded and will receive a 0 as a score.

All assignments will be submitted as PDFs with the following naming convention:

PLSC####_Project/Assignment#_MMDDYYYY_FirstNameLastName.pdf

e.g. PLSC280_Project01_08292021_HideoSasaki.pdf

Students that do not use this naming convention or file format will have 10 points deducted from their submission grade

Final Grade Scale:

94% or greater	.....	A
90 – 93%	.....	A-
87 – 89%	.....	B+
84 – 86%	.....	B
80 – 83%	.....	B-
77 – 79%	.....	C+
74 – 76%	.....	C
70 – 73%	.....	C-
67 – 69%	.....	D+
64 – 66%	.....	D
60 – 63%	.....	D-
59% or lower	.....	F

‘A’ - Outstanding: This student displays a mastery of the subject matter. All required work is complete and demonstrates a superior understanding of the issues and skills involved in the project and applies them appropriately. The individual consistently demonstrates initiative and inquiry and goes above and beyond instructor expectations. Assignment materials are superior in content and craftsmanship and communicates information clearly. The individual consistently participates and is actively engaged in the class.

‘B’ - Good: The quality of the student’s work and participation is above average, but lacks the thorough rigor of excellent work.

‘C’ - Average: The quality of the study’s work and participation work does not exceed expectations. The work is satisfactory, but does not display a mastery of the subject matter.

‘D’ - Poor: The basic expectations of each student have not been met. The work has obvious shortcomings. There is little effort put forth in the class, and no mastery of subject matter. Course may not be used to satisfy degree requirements.

‘F’ - Failing: Almost no effort has been put forth by the student demonstrated by both process and product. Course may not be used to satisfy degree requirements.

Attendance Policy:

Punctuality, attendance, active participation, and overall effort during the course is basic professional behavior, expected of all students, and is reflected in your final grade. All students begin the semester with an “A,” 100/100 points, for attendance, participation and respect. Students will lose 10 points from this score for every absence, which will be taken daily at the beginning of studio or recorded through participation in class exercises and/or snap quizzes, in addition 10 points are lost for each gross tardy: more than 15 minutes late. Students who are absent will be accountable for the day’s content. It is their responsibility to contact the instructor or their classmates in order to acquire the necessary information.

Students who are observed to be disengaged from class, are not participating or otherwise disrespectful to the professor or their classmates will also have points deducted from their attendance grades.

Course Feedback: *I genuinely value your thoughts and perspectives*

Students are encouraged to provide the instructor with feedback over the course of the term using CANVAS, email, and other interactive means such as real-time, in-class polling.

Academic Integrity:

“An essential feature of the University of Tennessee, Knoxville is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the university, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity.”

University Civility Statement:

Civility is genuine respect and regard for others: politeness, consideration, tact, good manners, graciousness, cordiality, affability, amiability and courteousness. Civility enhances academic freedom and integrity, and is a prerequisite to the free exchange of ideas and knowledge in the learning community. Our community consists of students, faculty, staff, alumni, and campus visitors. Community members affect each other’s well-being and have a shared interest in creating and sustaining an environment where all community members and their points of view are valued and respected. Affirming the value of each member of the university community, the campus asks that all its members adhere to the principles of civility and community adopted by the campus: <http://civility.utk.edu/>.

Disability Services:

“Any student who feels s/he may need an accommodation based on the impact of a disability should contact Student Disability Services in Dunford Hall, at 865-974-6087, or by video relay at, 865-622-6566, to coordinate reasonable academic accommodations.

Your Role in Improving Teaching and Learning Through Course Assessment:

At UT, it is our collective responsibility to improve the state of teaching and learning. During the semester, you may be requested to assess aspects of this course either during class or at the completion of the class. You are encouraged to respond to these various forms of assessment as a means of continuing to improve the quality of the UT learning experience.

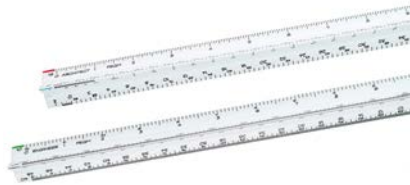
Key Campus Resources for Students:

- [Center for Career Development](#) (Career counseling and resources; HIRE-A-VOL job search system)
- [Course Catalogs](#) (Listing of academic programs, courses, and policies)
- [Hilltopics](#) (Campus and academic policies, procedures and standards of conduct)
- [OIT HelpDesk](#) (865) 974-9900
- [Schedule of Classes/Timetable](#)
- [Student Health Center](#) (visit the site for a list of services)
- [Student Success Center](#) (Academic support resources)
- [Undergraduate Academic Advising](#) (Advising resources, course requirements, and major guides)
- [University Libraries](#) (Access to library resources, databases, course reserves, and services)

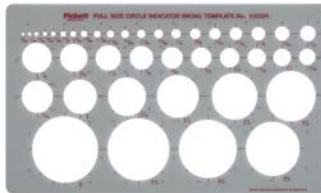
Unusual circumstances may result in a change of teaching modality.

The instructor reserves the right to revise, alter or amend this syllabus as necessary.

Some Tools of the Trade!



Engineers/Architects Scales



Circle template



Drafting dots/tape



Triangles



Micron Pens



Trace paper roll



Sketch book



Erasers



Drawing pencils



Sign Pen/Fineliners for sketching



Dependable access to digital technology



Modeling clay (soft/non-hardening)