



## ACT 225 - Civil Engineering/Site Design Semester / Section

Instructor	
Class Days	
Time	
Contact	
Office hrs.	
Website	

**COURSE DESCRIPTION**

The Civil Engineering/Site Design course presents a detailed outline of the steps involved in the site design process and familiarizes the student with the knowledge and skills needed to shepherd a project through the design and approval phases. The technical focus includes understanding the information needed on the design drawings, how that information is determined, and how the presentation of that information is as important as the accuracy of the information. Field trips are included to assist the student in comprehending the fact that two-dimensional designs on paper must be able to be constructed in three dimensions in the field.

**REQUIRED TEXTBOOK(S) and OTHER COURSE MATERIALS**

- Dewberry & Davis. *Land Development Handbook, 3rd Edition*. New York: McGraw Hill Professional, 2008. ISBN 9778-0-07-149437-3

**ACCESS TO ONLINE RESOURCES:**

The following resources are available and valuable to your experience at Pennsylvania Institute of Technology. They can be found at [www.pit.edu](http://www.pit.edu) – under the tab marked “Student Information”.

- Course Catalog
- Student Handbook

**ACROSS THE CURRICULUM PROGRAM**

The College’s *Across the Curriculum* program prepares students for academic success by including the following elements in the learning outcomes requirements for this course:

- **Computer Literacy**
- **Mathematical Proficiency**
- **Communications**
- **Critical thinking and Problem Solving**
- **Information Literacy and Research**
- **Collaborative Learning**
- **Professional Competency**
- **Ethical Behavior**

**STUDENT COURSE LEARNING OUTCOME(S):**

Upon the successful completion of this course, students will be able to:

- Demonstrate a comprehensive understanding of the overall site/civil design process;
- Identify key steps in the design process, including site feasibility analysis, conceptual design, and detailed design;
- Prepare design drawings in AutoCAD that are clean, accurate, and consistent.

**ASSESSMENT OF STUDENT LEARNING**

Course grading for ACT 225 will be based on the following assessments:

<b>Title of Assessment Measure</b>	<b>Point Value or Percentage</b>
Quiz - weekly	30%
Project	10%
Participation, home assignments- weekly	25%
Field Trip Participation	10%
Exams-Mid Term and Final	25%
Total	100%

**Grading Scale (“QP” – Quality Points)**

A	4.00 QP	Distinct Achievement
A-	3.67 QP	
B+	3.33 QP	Excellent Achievement
B	3.00 QP	
B-	2.67 QP	
C+	2.33 QP	Satisfactory Achievement
C	2.00 QP	
C-	1.67 QP	
D+	1.33 QP	Minimal Achievement
D	1.00 QP	
D-	0.67 QP	
F	0.00 QP	Insufficient Achievement
FA	0.00 QP	Insufficient Achievement due to attendance
I	0.00 QP	Incomplete
W	0.00 QP	Withdrawal

Notes:

- Incomplete (“I”) is a temporary grade. Students are required to petition for this grade by completing the Verification of Incomplete Grade Form. This form must be approved prior to

the last day of classes by the instructor and the Dean or Assistant Dean of Academic Affairs. It is the sole responsibility of the student to complete the required work no later than 60 days from the last class session or by an earlier date assigned by the instructor.

- Additional information regarding the grading system of the College can be found in the Course Catalog which can be downloaded from the P.I.T. website.

## **ACADEMIC POLICIES**

1. All students, faculty and staff members are expected to treat each other with the utmost dignity and respect.
2. Students are expected to be on time and prepared for each class.
3. Students are encouraged to actively participate in classroom discussions and activities.
4. Food and drinks are not allowed in classrooms or laboratories except for bottled water.
5. Students are expected to check college-issued e-mail accounts on a DAILY basis.
6. Cellular telephones must be turned off or placed on silent mode prior to entering the classroom.

## **ACADEMIC INTEGRITY AT THE PENNSYLVANIA INSTITUTE OF TECHNOLOGY**

Academic integrity is the pursuit of scholarly activity free of fraud and deception and is an educational objective of this institution.

## **ACADEMIC DISHONESTY AND MISCONDUCT**

Academic Dishonesty - It is the policy at P.I.T. to discourage academic dishonesty. Academic dishonesty is defined as the attempt to mislead or deceive in order to influence the grading system or process. Academic dishonesty includes, but is not limited to:

- Cheating, including:
  - The use of unauthorized materials or devices such as crib notes or spell checkers during an examination,
  - Providing and/or receiving unauthorized assistance during an examination,
  - Possessing a course examination prior to the examination,
  - Using a substitute to take an examination or course;
- Plagiarizing in any form;
- Fabrication of information or citations;
- Facilitating the acts of academic dishonesty by others;
- Submitting the work of another person;
- Submitting work previously used without informing the instructor;
- Tampering with the academic work of other students; or
- Attempting to bribe institutional personnel in order to attain academic advantage.

All matters involving academic dishonesty are serious violations of the Student Code of Conduct. Faculty members are to report all violations to the Dean of Academic Affairs and may recommend penalties for initial violations of a serious nature or for recurrent violations. Depending on the severity of the offense, academic dishonesty may result in the student's dismissal from P.I.T. **If it is determined by the instructor that a student has been academically dishonest, the Program Manager will be notified. The student will receive a "0" for the assignment and will be placed on Academic Probation. A subsequent act of academic dishonesty is likely to be deemed grounds for dismissal from the College.**

Misconduct - In order to maintain a healthy learning environment, students are expected to act within the guidelines as presented in the Student Code of Conduct which can be found in the

Student Handbook. Any student who behaves contrary to the code will be dismissed from the classroom, and will receive consequences as listed in the Code of Conduct.

## **ACCOMMODATIONS**

P.I.T. strongly encourages students to disclose their diagnosed disability to all of their instructors. If you have had accommodations approved by the Dean of Student Services, please be sure to tell the Assistant Dean of Academic Affairs which instructors you designate to receive information about your accommodations. Be aware that information regarding your disability and accommodations cannot be disclosed to any instructors without your permission. You are not required to use all of the accommodations to which you are entitled, but you are strongly encouraged to involve your instructor in those decisions early in the semester.

## **STUDENT MAKE-UP OF CLASS WORK**

**Whenever a student misses a class or lab, for whatever reason, he/she has the responsibility for making up the work that was missed and for meeting all of the requirements and objectives of the course.** If a student is absent from a class for 20% or more of the total class hours and has not been effective in making up any missed work or assignments and the faculty member is concerned about the ability of the student to achieve a passing grade, the College normally recommends that the student drop the course and take a "W" grade. If the student chooses to remain in the course he or she must understand that a grade of "FA" could be earned.

## **SPECIFIC COURSE POLICIES**

### **Guest Lecturers and Field Trips**

Students are required to attend these events.

These events shall be treated as opportunities for networking. Students are representing the college and thus, are required to be well dressed, on time, and attentive. Students shall interact with the presenter in an appropriate manner.

### **Faculty Expectations**

1. Timely and full attendance
2. Adequate preparation. Plan on a minimum of 2-4 hours weekly outside class to complete reading and prepare for material to be discussed in class.
3. Willing participation in classroom discussion and activities.
4. Submission of completed assignments on the assigned due date.

### **Consequence for late work:**

A student whose work is late or missing, who frequently misses class, or who falls behind in the material, will find it difficult to catch up. Students are encouraged to discuss any such situation with the instructor as soon as possible to determine how best to proceed. Students may speak with the instructor before or after class, or via phone or email outside of class hours.

## COURSE OUTLINE and SCHEDULE

<u>Date</u>		<u>Topic</u>	<u>Reading</u>	<u>Assignment</u>
Week1		Introduction/ Overview		
	Class 2	Planning & Zoning, Ordinances (Subdivision & Land Development, Zoning)		
Week 2	Class 3	Cont.		
	Class 4	Group work		
Week 3	Class 5	Feasibility and Site Analysis (easy/hard site, environ constraints, zoning, NIMBY, survey)		
	Class 6	Cont.		
Week4	Class 7	Design Drawings – what do they look like? (presentation, consistency, accuracy, text conflicts)		
	Class 8	Field Trip #1		
Week 5	Class 9	Conceptual Design (Sketch Plan)		
	Class 10	Survey and Preliminary Design		
Week 6	Class 11	Detailed Design (lots, buildings, streets)		
	Class 12	Detailed Design (conceptual grading, storm drainage, stormwater management)		
Week 7	Class 13	Cont.		
	Class 14	Exam review		
Week 8	Class 15	Mid-Term Exam (first 30 min. of class); remainder of class will continue study: detailed design (grading/earthwork, erosion control)		
	Class 16	Field Trip #2		
Week 9	Class 17	Detailed Design (wastewater, water supply, utilities)		
	Class 18	Detailed Design (hard surfaces: pavement, curbing, SW)		
Week 10	Class 19	Detailed Design		
	Class 20	Plan submittals, reviews		

Week 11	Class 21	Cont.		
	Class 22	No class - Thanksgiving Break		
Week 12	Class 23	AutoCAD-specific issues (Xrefs, layers, drawing rotation/north orientation, survey points)		
	Class 24	Cont.		
Week 13	Class 25	Critical design checks (U/G utility conflicts, ADA compliance, vehicle maneuverability); Quality Assurance/Quality Control (QA/QC)		
	Class 26	Exam review		
Week 14		Final Exam		

**MODIFICATIONS TO COURSE OUTLINE**

**The Instructor from time to time may modify this course outline to meet instructional needs.**

# ACT 225 SYLLABUS CONTRACT

**Course and Section:**  
**Class Meeting Days & Times:**  
**Instructor:**

**Semester:**  
**Semester Dates:**

I received a copy of the contract for the course: **ACT 225 Civil Engineering Site Design** and I had ample time to read it and to ask questions. Furthermore, I understand that success in this class requires that I:

- (1) Read, understand and complete assignments.
- (2) Respect the ideas and opportunities of others.
- (3) Follow all academic and course policies as stated in this syllabus.

\_\_\_\_\_ (Signature)                      \_\_\_\_\_ (Date)                      \_\_\_\_\_ (Major)

### Student Contact Information

Please fill in the following information where I might reach you during the semester:

Print Name: \_\_\_\_\_

Home phone (     ) \_\_\_\_\_

Work phone (     ) \_\_\_\_\_

Cell phone (     ) \_\_\_\_\_

Please circle the best phone number for emergency contact:

- (a) Home                      (b) Work                      (c) Cell

Email address PIT account: \_\_\_\_\_ @pit.edu

Alternate account: \_\_\_\_\_ @ \_\_\_\_\_