

PHY 115: “Engineering Graphics 1”

Fall 2009

Tuesdays 6-8 PM in Merion 122 OR Anderson 6

Course description: This is an introductory course that focuses on engineering drawing. Most of the drawing we will be doing is computer-based using the software package AutoCAD, but learning how to sketch by hand is also important and is therefore covered as well. We will talk about the practical side of engineering drawing and touch on engineering design in general, e.g., the design process, manufacturing methods, and material selection.

Instructor: Prof. Robert Thornton

Office: Merion 129

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Office hours: MWF 3:00-4:00 PM; Tu 9:00-11:00 AM; also by appointment

Textbook (required): *Engineering Graphics Essentials with AutoCAD 2009 Instruction* by Kirstie Plantenberg, SDC Publications.

The material in the book will be spread over the two semesters of Engineering Graphics I & II. Class time is short so it is important to reinforce what we covered in class with the relevant sections of the text.

Other Required supplies:

- Blank engineering (gridded) paper, pencil, eraser, ruler.
- A removable media storage device, such as a USB flash drive
- Access code to Anderson 6

Web page/Syllabus: All of the necessary course documents (syllabus, homework assignments, solutions, etc.) will be posted on blackboard, www.wcupa.edu/blackboard. If you are not familiar with blackboard or are having problems, feel free to contact me. Some documents may also be available from <http://courses.wcupa.edu/rthornton>, but blackboard should be your main resource.

Grading:

Exam 1: 20%; Exam 2: 20%

Homework: 20%

Design Project: 20%

Final Exam: 20%

Attendance: Since the course only meets once a week, attendance is crucial. Attendance will be taken at each lecture. If you are not there for the *entire* lecture, you will be marked absent. One unexcused absence is allowed. After you miss more than one with no excuse, each additional unexcused absence will result in your course grade going down 1/3 of a letter grade (e.g., B to B-). If you have good reason to miss class, your absence will be considered an excused absence and will not lower your grade.

Excused absences are limited to those due to participation in university sanction events (see policy in the WCU undergraduate catalog) or those accompanied by written confirmation from a doctor, the Dean of Students, etc. An unexcused absence on the day of a quiz or exam will result of a grade of zero for that quiz or exam. Finally, whether your absence is excused or unexcused (or if you are late to class), you will be responsible for any material covered and any announcements that were made in class that day.

Homework: There will approximately 6-10 homework assignments throughout the semester. Homework assignments are due at the beginning of class on the specified due date. Assignments may consist of detailed hand sketches, computer exercises, or a design topic. Because of the unique structure of this class, no late assignments will be accepted unless you have already made a prior arrangement with me.

Disability: West Chester University is committed to making accommodations for persons with disabilities. Please make your needs known by contacting your instructor and the Office of Students with Disabilities. Sufficient notice is needed in order to make the accommodations possible. The University desires to comply with the ADA of 1990.

Course Coverage (might be revised as the semester progresses):**

Week1: Introduction, Syllabus (Merion 122)

Weeks 2-3: Instruments, sketching, line work, multiviews (Merion 122)

Week 4: Introduction to AutoCAD (Anderson 6)

Week 5: Quiz 1 (Merion 122)

Weeks 6-9: AutoCAD topics (units, drawing set up, line types orthographic projection, etc.) (Anderson 6)

Week 10: Quiz 2 (Anderson 6)

Weeks 11 – 12: AutoCAD tools (layers, snaps, titleblocks) (Anderson 6)

Weeks 13 – 15: Class project (Anderson 6)