**Syllabus for MAE205**  
**Visualization and Graphics**  
**Fall Semester 2006**  
**Meeting Days (M, W)**  
**2:00-5:00 PM**  
**Room EGC 225A (lecture)**  
**Room EGC 216A (computer lab)**

**Instructor:** Dr. Hodge Jenkins, Assistant Professor  
Department of Mechanical and Industrial Engineering

**Office:** Suite 101-D School of Engineering

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**Email:** jenkins_he@mercer.edu

**Textbooks and Supplies:**  

**Reference:**  
ASME Y14.5M-1994 Geometric Dimensioning and Tolerancing Standard  

**Web Sites:**  
http://faculty.mercer.edu/jenkins_he/MAE205.htm  
http://www.ptc.com/community/proewf2/newtools/index.htm  
http://www.autodesk.com  
http://www.caetutorials.com/

**Catalog Description:** An introduction to engineering graphics and component visualization. Sketching, line drawing, computer assisted drafting, solid modeling including parametric modeling. Development of drawings and requirements for drawings in a manufacturing environment.

**Course Objectives:** Upon successful completion of this course, you should be able to do the following:

- Prepare isometric and multi-view sketches which will communicate your designs and ideas to others.
- Prepare hand sketches and manual drawings using drafting tools.
- Use professional CAD tools for development of two-dimensional figures and drawings.
- Use professional CAD for development of solid models and drawings.
- Prepare orthographic projections using hand sketches, two-dimensional CAD, and solid modeling approaches.
- Create detail component and assembly drawings using two-dimensional CAD and solid modeling approaches.
Prerequisites: None

Course Content:
Hand sketching and drafting with AutoCAD LT 2002, and solid modeling in Pro/Engineer Wildfire 2.

Grading:
- Homework: 40%
- Project (3): 20% each

Grade Averages: A (90-100), B (80-89), C (70-79), D (60-69), F (<60)

Homework:
Homework will be assigned and will be collected at the beginning of class on the due date. Usually, there will be sufficient time in the regularly scheduled lab time to complete the assignments. Late homework will not be accepted. The lowest homework grade will be discarded.

CAD homework submissions will be submitted via e-mail using the naming formats (in this case for homework 1).

- E-mail subject format: ‘MAE205 HW1’
- File formats: ‘yourlastname hw1.dwg’

You are responsible for creation of your own backup files.

Projects:
There will be a project at the end of each visualization method (manual, 2-D CAD, solid modeling CAD). In some instances students will form into two-person teams to work on a project. In this situation each student on the team will receive the same grade on the project. Late projects will not be accepted. Details on each project will be provided at the time it is assigned.

Course Standards:
1. Assignments are due at the beginning of the class period on the date due. In an exceptional circumstance you may petition to hand in an assignment late. If granted, the grade will be reduced one letter grade per day late.

2. Attendance is required due to the large amount of in-class work and team activities we will be doing. You can’t “make up” experiential learning. More than three absences will result in grade penalties. It is especially important that you be present when your classmates give peer reviews and oral presentations, since you will be giving written feedback. Absences during peer reviews and oral presentations will be counted as double.

3. Grading encompasses every aspect of the course, from participation through final products. You can assume that every task requested directly or indirectly factors into your grade. For example, having your work prepared for your group is as important as having it ready for me. Regular feedback will be given on documents handed in.

4. You are encouraged to schedule a conference at any point that you need it. If you need to see me, catch me after class to schedule a time or call Ms. Dee Ryburn, the MAE Secretary, at 301-2223 to get on my calendar.
5. Please turn off cell phones and pagers before entering the classroom.

6. The **honor code** provisions as outlined in the *Bulletin* and in the student handbook, *The Lair*, will be assumed for everyone. It should be clear from class discussion which projects will be collaborative and which ones must be individual. When in doubt, please ask to avoid potentially embarrassing situations. Plagiarism is a violation of the honor code and is prohibited.

7. Students requiring accommodations for a disability should inform the instructor at the close of the first class meeting or as soon as possible. If you are not registered with Disability Services, the instructor will refer you to the Disability Support Services office for consultation regarding documentation of your disability and eligibility for accommodations under the ADA/504. In order to receive accommodations, eligible students must provide each instructor with a “Faculty Accommodation Form” from Disability Services. Students must return the completed and signed form to the Disability Services Coordinator on the 3rd floor of the Connell Student Center. Students with a documented disability who do not wish to use academic accommodations are also strongly encouraged to register with Disability Services and complete a Faculty Accommodation Form each semester. For further information, please contact Carole Burrowbridge, Disability Services Coordinator, at 301-2778 or visit the website at [http://www.mercer.edu/stu_support/swd.htm](http://www.mercer.edu/stu_support/swd.htm)

8. This syllabus is subject to change.

**Electronic Communication:**

Electronic communication is an important adjunct to face-to-face communication, including from professor to students, students to professor, and students to students. You must have regular access to your e-mail. If you do not have an active e-mail address on the first day of class, please secure one. Access to the Web and to the Internet is also integral to the class work. A number of laboratories on campus will provide access, in addition to EGC 102 and ECG 111-B. Information will be periodically given via e-mail. You must check your Mercer student e-mail regularly.

File-naming conventions will be prescribed in order to avoid needless confusion about electronically submitted documents. Set your e-mail so as to assure that you get a time-and-date confirmation of any assignments submitted electronically. You are responsible for using the correct mailing address.