Welcome to the
Engineering Education Department!

ENGR 1186 – Introduction to Engineering Graphics 01
Today’s Objectives

- Teaching Team Introduction
- Course Structure & Expectations
- Academic Misconduct
- Course Syllabus
- Glass Box Theory
- Solid Works Examples
- Graphics 01
  - Develop visualization skills using coded plans and snap cubes
  - Use coded plans to sketch objects in isometric view
- GP01 In-Class Activity
- GP01 After-Class Assignment – Get Your COURSE PACKET and Sorby Textbook
Teaching Team Introduction

- Faculty Leader
- Graduate Teaching Associate - GTA
- Undergraduate Teaching Associates - UTA

Get to know us, we’re here to make you successful!
The First-Year Engineering Program

Focus

Semester 1
- Problem Solving with Engineering Tools
- Hands-on Laboratories
- Technical Communications
- Teamwork

Semester 2
- Visualization and CAD
- [Design and Build Projects - not in 1186]

Note that although these slides reference 1186, almost all future slide presentations will reference 1182 since both 1186 and 1182 cover the identical Graphics and SolidWorks material.
ENGR 1186 Course Structure

- Three Components of ENGR 1186
  - Graphics
    - Visualization Skills
    - Hand Sketching
    - SolidWorks Layout
  - SolidWorks
    - 3D CAD
    - Real World Application
  - Midterm 1
    - Weeks 1-5
  - Final
    - Weeks 5-10
Structure & Expectations

The Flipped (or inverted) Classroom

- Students watch lectures/study materials online before class.
- Concept engagement takes place in the classroom with help of instructional team.
**Module Example**

**Topic:** Graphics 02

**Pre-reading Assignment:**
Quiz: GP02 (on Carmen)

**Lecture:** Graphics 02 (on Carmen)

**Topics:**
- Isometric Sketching from different view points
- Inclined and curved surfaces in isometric sketching

**Class GP02 Activity – In Course Packet**

**Class GP02 Application – On Carmen**

**Learning Modules**

**Before Class Preparation**

**Reading Material**

**Carmen Quiz**

**In Class Activity**

**Lecture or Demonstration**

**Practice and Assessment**

**Graphics 02**

- Isometric Sketching + Inclined Surfaces in Isometric
- Curved Surfaces in Isometric
Required Materials

Before Class

Reading

Textbook:
Fundamentals of Engineering (OSU Edition)
Local Bookstores

In Class Activity

Drawing Packet:
ENGR 1186/1182 Course Packet
Local Bookstores
Logging on in any Hitchcock classroom

Windows 10 Logon

Press <CTRL> - <ALT> - <DELETE>

Then fill in the logon window with

Your User ID *

Your Password (case sensitive text)

* As illustrated on the following slide
Follow instructions to create a new password. It must be at least 8 characters, with 3 of the 4 complexity categories: lower case letters, upper case letters, special symbols and numbers.
Carmen

- https://carmen.osu.edu

- Online tool for all course resources
  - Presentations, Class Activities & Applications, Gradebook, quizzes, journals
  - Use OSU login
  - 24/7 access

- Communication between instructional staff and students
OSU Email

- Check your OSU email daily for important information and updates.
- Use OSU email for all communication with your instructional team.
- We cannot email private or personal information to you via non-OSU email addresses.
The eedcourse material

Carmen:

- Contains all ENGR 1186 course materials
- Arranged by class meeting time and schedules
- Click on the link called "Graphics 1"

- Helpful hint: Bookmark your class schedule page!!
## Carmen Organization

**Graphics 1 - Isometric Sketching and Coded Plans**

1. Textbook Reading - Section 2.06, 2.07.01, 2.11.01

- **In-Class:**
  1. Instructor’s Presentation - *Powerpoint or PDF*
  2. Introduce Instructional Staff
  3. Go over the 1182 *Syllabus*
  4. Purchase (1) the 1182 Course Packet and (2) the Textbook
  5. Explore the resources on the 1182 *Content Page* and the *Resources Page*

- **Topic: Isometric Sketching and Coded Plans**
  1. Instructor’s Presentation - *Powerpoint or PDF* - SolidWorks Image for Coded Plans *SLDPRT* and *SLDDRW*
  2. Optional "Example" Presentation of 1st In-Class GP_01 problem - *Powerpoint or PDF*
  3. In-Class Activity - *PDF or Word*

- **After Class:**
  1. GP_01 Homework - *PDF or Word* - due at the beginning of Graphics 2
  2. Register and complete the CATME survey - CATME - due at midnight
  3. Explore the *Student Resource Guide*
  4. Explore the 1182 *Content Page* and the *Resources Page*

- **Journal:**
  - Journal - due on selected Sundays at 11:59 pm - *Carmen*

- **Next Class:**
  - Graphics 2 - Isometric Sketching from Different View Points + Inclined and Curved Surfaces in Isometric
Syllabus Review

- Assignment Policy
- Makeup Exam Policy and Guidelines
- Attendance and Participation
- Assessment and Evaluation
- Grading
- Journals
- Academic Misconduct

**NOTE:**
In order to receive a passing grade in this course, a minimum grade of 50% is required in all three course components:
- Class Activities
- Exams
Let’s Go Through the Syllabus

**Academic Misconduct:**

Note that Academic Misconduct is covered very extensively in the syllabus. It is a very important topic and it will be discussed the next slides. There is also an assigned reading and quiz, both of which are due prior to the next class.
Academic Misconduct. What is it?

• Any activity that tends to compromise the academic integrity of the university, or subvert the educational process.
Academic Misconduct. A Very Recent Example

A statement released to 10TV says possible punishment for the misconduct range from warnings to dismissal, and also includes grade penalties, which could include receiving a zero on the assessment. Davey would not specify how the 85 students were punished, but did say a number of the cases are still pending.

85 Ohio State vet school students accused of cheating

6/7/16 - Channel 10 TV
Academic Misconduct Policy of The Ohio State University

The Code of Student Conduct defines Academic Misconduct to include:

1. violation of course rules in the syllabus
2. providing or receiving information during quizzes or exams
3. submitting plagiarized work ... see Academic Misconduct online reading assignment for details!
4. falsification, fabrication, or dishonesty in reporting research results.
5. engaging in activities that unfairly place other students at a disadvantage

All cases of suspected misconduct must be reported to the University Committee on Misconduct.
Academic Misconduct

What are typical examples of academic misconduct?

• Submitting copied homework .... drawings or problems
• Copying some ones work on an Exam

What happens if academic misconduct is suspected?
Per the syllabus, all suspected cases of academic misconduct must be reported to the Committee on Academic Misconduct (CoAM) who will initiate the following process.
Plagiarism – cont’d

• The First Year Engineering Program encourages teamwork. How does one avoid plagiarism (cheating) when you are working together?

• HOMEWORK: If you are asked “How do you do this problem?”, try to help your fellow class member think through the solution rather than giving them the answer.
Some final observations ....

- Academic Misconduct often occurs when students are under pressure or procrastinate.

- If there are extenuating circumstances, talk to your instructor about your problem in making a timely submission.

- When multiple homework problems or lab reports are graded by a single person, it is fairly easy to detect copied assignments, especially SolidWorks Drawings.
Some final observations, cont’d ….

- Please remember that a sanction for Academic Misconduct can easily result in a whole grade reduction or even failure of the course.
- Any questions? Please review the Academic Misconduct section in the course syllabus and the Academic Misconduct online reading assignment in the EED website under Class 1.
Methods of Getting Help

- UTA Tutoring
  - Available in First-Year Engineering computer lab (HI 324)
  - Staffed Mon-Thurs 9-7, Fridays 9-3

- GTA
  - Make an appointment or stop by office hours, they’ll appreciate it!

- Instructor
  - Make an appointment or stop by office hours.

Get to know us, we’re here to help!
Glass Box Theory – Orthographic Projection

ENGR 1182
Glass Box Theory – Orthographic Projections

- Place a Glass Box around the Object
- Project Lines / Points from Object to Each Glass Surface (Front, Top & Right Side)
- “Unfold” Glass Box to Create Orthographic Projections
Glass Box Simulation

IN SLIDE SHOW MODE CLICK HERE TO RUN SIMULATION
Steps in Creating the Orthographic Projection Sketch

Example Object

- Front View
- Right Side View
- Top View
SolidWorks Animation Examples

ENGR 1182
Things to do before next class

- Purchase your:
  - Book – Engineering Design by Lieu & Sorby
  - Course Packet

- Read your assigned material