Welcome to ENGR 1186.0X

Excellence – Impact - Innovation
Relationship between 1186 and 1182

- 1186 uses the same material as 1182 but without the AEV lab portion, thus the website will contain 1182 labels.

Course Materials:

Required Materials:
- Book (At Campus Area Bookstores)
  - Fundamentals of Engineering: The Ohio State University; by Lieu, Sorby; Cengage Learning; ISBN: 978-1-305-03583-6
- Engineering 1186.01 Student Course Packet (*Purchase at campus Barnes and Noble*)
Today’s Plan contains more information than we will normally present on a daily basis since we need to cover a lot of important administrative details.

- Welcome and Teaching Team Introduction
- Class Style and Expectations
  - Course Structure
  - Expectations of Students
- Overview of the
  - Course Syllabus
  - Course Schedule on the EEIC website
Teaching Team Introduction

1. Faculty Leaders
   Prof. Dick Busick.10 (CompSci, EE)
   Mohini Dutt.15 (ISE)

1. Undergraduate Teaching Associates
   Monika Patel.1197 (ChemE)
   Evan Martindale.40 (ChemE)
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]
Online Course Management Systems (The EEIC Course and Carmen websites)

- Online tool for most course resources such as course assignments and lecture materials are in the EEIC Courses website.
- Online tool for some course resources such as gradebook, quizzes, journals and NEWS are in Carmen.

For 24/7 access using your OSU login after establishing your Hitchcock login.

EEIC [https://eeiccourses.engineering.osu.edu/1186](https://eeiccourses.engineering.osu.edu/1186)

Carmen [https://carmen.osu.edu](https://carmen.osu.edu)
Logging on in any Hitchcock classroom

Windows 7 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 ORGANIZATION

Class Announcements
Special Material, etc ...
Quizzes and Journals
Gradebook Entries

Welcome to Carmen:

Welcome to Carmen, OSU's course managing system. In Carmen you will find different course materials and items available in the ENG 181 course. You will also find your gradebook available online.

The toolbar located at the top of the page will be your main guide through the Carmen program. Course Home will always take you back to this home page, where you'll find announcements and different information that your professor may want to provide you with.

In the Content link is where you can access general information about the course. Your syllabus and daily assignment list are located in the Content page.

In the Grades link is where you will be able to access your grades throughout the quarter, so you can monitor your progression in the course.

The Quizzes link is where you will find both Quizzes which will be assigned during the quarter and Journals. Refer to your syllabus so that you are aware of the due dates for both these items.

The Locker provides you with 30 MB of personal storage space for you to store your class files.

Welcome to the First-Year Engineering Program: should you have questions about the Carmen program you can contact 688-HELP or carmen@osu.edu.
# Class Schedule (example)

## ENGR 1186 - Class Schedule

**Summer Semester 2014**

1186 Website Home

The class meets on Monday and Wednesday from 8:00 to 9:20 in Hitchcock Hall Room 224.

### Class Monday + Wednesday

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Day</th>
<th>Link</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jun 16</td>
<td>Mon</td>
<td>Graphics 1</td>
<td>Course Introduction + Academic Integrity + Basic Isometric Sketches and Coded Plans</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Tue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Wed</td>
<td>Graphics 2</td>
<td>Isometric Sketches from Different Views + Inclined &amp; Curved Surfaces in Isometric</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Thur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Fri</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Jun 23</td>
<td>Mon</td>
<td>Graphics 3</td>
<td>Orthographic Projection Basics + Hidden Lines</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>Tue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Wed</td>
<td>Graphics 4</td>
<td>Inclined Surfaces in Orthographic Projection + Curved Surfaces and Centerlines</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Thur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Fri</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Jun 30</td>
<td>Mon</td>
<td>Graphics 5 Graphics 6</td>
<td>Point, Edge and Surface Tracking + Missing Lines Missing Views</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Tue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Wed</td>
<td>SW 1</td>
<td>Introduction to Solid Modeling + SolidWorks Layout</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Thu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Fri</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4  Jul 7 Mon  SW 2 Extrude + Revolve
5  Jul 14 Mon  SW 3 Geometric Constraint Modeling + Dimensional Constraint Modeling
6  Jul 21 Mon  SW 5 Assembly Modeling Constraints
7  Jul 28 Mon  SW 7 Dimensioning in SolidWorks Part 2
8  Aug 4 Mon  Final Exam

The Final Exam is from 8:00 to 9:45 am in HI 224
**Your Class Schedule for Today**

(Three Phases enumerated in the EEIC website:)

1) **Before class**
   
   Student: Please logon to the EEIC Courses website

2) **Topics covered and activities begun In Class**

3) **After class**

---

<table>
<thead>
<tr>
<th>Before class</th>
<th>None</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>In-class</th>
<th>Topic: Course Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Instructor's Presentation - Powerpoint or PDF</td>
</tr>
<tr>
<td>2.</td>
<td>Introduce Instructional Staff</td>
</tr>
<tr>
<td>3.</td>
<td>Course Syllabus</td>
</tr>
<tr>
<td>4.</td>
<td>Review Academic Misconduct - Resources Page</td>
</tr>
<tr>
<td>5.</td>
<td>Mention the Student Resource Guide - Resources Page</td>
</tr>
<tr>
<td>6.</td>
<td>Familiarize yourself with the 1186 Carmen page</td>
</tr>
<tr>
<td>7.</td>
<td>Students: All Flash / USB Drives must contain this identification - Resources Page</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic: Basic Isometric Sketches and Coded Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor's Presentation - Powerpoint or PDF</td>
</tr>
<tr>
<td>2. GP-01 In-Class Activity - PDF - due at the beginning of Graphics 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After class</th>
<th>GP-02 Homework - Textbook Section 2.15 Page 2-33, Problem 3, Parts (c),(d),(g),(h) - PDF - due at the beginning of Graphics 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Explore the Student Resource Guide - Resources Page</td>
</tr>
</tbody>
</table>

| Journal     | Journal - due each week before Sunday at 11:59 pm - Carmen |

| Next class  | Graphics 2 - Isometric Sketches from Different Viewpoints - Inclined and Curved Surfaces in Isometric |
Understanding Your Responsibilities

It is your responsibility to carefully review and follow the Class Schedule!

In the "Inverted Classroom", each day you will:
1. Prepare for class per the assigned activities* in the Class Schedule
2. Receive a short lecture and/or demo on topic 1
3. Work on In-Class homework – topic 1 **
4. Receive a second short lecture and/or demo on topic 2
5. Work on a second In-Class homework – topic 2 **
6. Start on the Out-of-Class homeworks – topics 1 & 2 **

* Such as readings, slides, video & quiz
** Ask the staff questions
Highlights from the Syllabus

Let’s quickly review the following content:

• Assignment Policy
• Makeup Exam Policy and Guidelines:
• Attendance and Participation: (Engineering is not a spectator sport)
• In-Class Activities & Homework Assignments
  (See lecturer notes for information)
• Grading
• Journal Entries (On Line Evaluation Tool)
• Academic Misconduct
Minimum Grade Requirements

A minimum grade of **50%** is required in the following course components to receive a passing grade for this course:

- Class Activities
- Exams

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Activities</td>
<td>45%</td>
</tr>
<tr>
<td>Application (Out-of-Class)</td>
<td>40%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>5%</td>
</tr>
<tr>
<td>Exams</td>
<td>50%</td>
</tr>
<tr>
<td>Midterm</td>
<td>20%</td>
</tr>
<tr>
<td>Final</td>
<td>30%</td>
</tr>
<tr>
<td>Participation</td>
<td>5%</td>
</tr>
<tr>
<td>Attendance</td>
<td>3%</td>
</tr>
<tr>
<td>Journals</td>
<td>2%</td>
</tr>
</tbody>
</table>
Ways Methods of Getting Help

- **Hitchcock Computing Environment** is available in the Freshman Engineering computer lab in HI 324.

- Make an appointment or stop by your **Instructor**’s office during scheduled office hours.
Student Resources Guide

- The Student Resources Guide is on the EEIC website under Content.

- The Student Resources Guide contains critical information which helps you understand how to find course materials and helpful hints about the course operation.

- Familiarize yourself with this document ASAP!
Technical Graphics Resources

• We will be using the book “Fundamentals of Engineering” from the publisher Cengage for our Technical Drawing resources at the beginning of this course (starting today).

• You, also, have online access to the textbook material plus supplemental study aids from Cengage.
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.
All cases of suspected misconduct must be reported to the University Committee on Misconduct.

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
Academic Misconduct

What are typical examples of academic misconduct?

- Submitting copied homework .... drawings or problems
- Copying some one's 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 student 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 EEIC website under Class 1.
Now let’s view a video that describes the process used by the Committee on Academic Misconduct (CoAM).

Click here to view video

Read the online Academic Misconduct reading module to prepare for the online quiz on Academic Misconduct. You may take the quiz twice and the higher of your two scores will be entered into the CARMEN grade book.
Questions you may ask yourself

- **How** can I impact the world as an engineer?
- **What** is engineering?
- **When** did engineering begin?
- **Who** can become an engineer and what does it take?
- **Why** become an OSU engineer?
How can I impact the world?

• You can help “make the world go round” by providing solutions to everyday needs & problems
How can I impact the world?

• You can help “make the world go round” by providing solutions to everyday needs & problems
  – Optimizing energy usage (i.e. green engineering)
How can I impact the world?

- You can help “make the world go round” by providing solutions to everyday needs & problems
  - Optimizing energy usage (i.e. green engineering)
  - Structures & Infrastructure
How can I impact the world?

• You can help “make the world go round” by providing solutions to everyday needs & problems
  – Optimizing energy usage (i.e. green engineering)
  – Structures & Infrastructure
  – Health & Medicine
How can I impact the world?

- You can help “make the world go round” by providing solutions to everyday needs & problems
  - Optimizing energy usage (i.e. green engineering)
  - Structures & Infrastructure
  - Health & Medicine
  - Transportation
How can I impact the world?

• You can help “make the world go round” by providing solutions to everyday needs & problems
  – Optimizing energy usage (i.e. green engineering)
  – Structures & Infrastructure
  – Health & Medicine
  – Transportation
  – Communication
How can I impact the world?

• You can help “make the world go round” by providing solutions to everyday needs & problems
  – Optimizing energy usage (i.e. green engineering)
  – Structures & Infrastructure
  – Health & Medicine
  – Transportation
  – Communication
  – Defense
What is Engineering?

- Engineering is about using natural materials and forces for the good of mankind.
Your Fellow Students Welcome You
Engineering Landmarks

Siegfried Marcus Car, 1875
Bell Telephone, 1876
Wright Flyer, 1903
Electronic Numerical Integrator and Computer, 1946
CD Player, 1978
2063?
Engaging Your Engineering Creativity
(Use this exercise if time is available)

• It’s a fact - engineered products impact our lives every day
• Think about a few of the engineered products and systems it took to get you to class today?
• List a few
Engaging Your Engineering Creativity

• **You** could be the one to develop the next great idea!

• Step 1 - A challenge to you. Let your imagination run free! Think about a concept for a new or improved engineering device you could have used today.

• Examples:
  – Solar powered, rechargeable toothbrush
  – Thought/mind controlled music player
  – Nuclear powered, space minimized, mono-wheel transporter (unicycle)

• You have 90 Seconds to create your idea. GO!
Engaging Your Engineering Creativity

• Step 2 - You now each have 30 seconds to pitch your idea to the fellow engineers at your table.

• Step 3 - Vote on which one you think is most creative.

• Step 4 - Team Report Out
Summary

- **How** you can impact the world as an engineer
- **What** is engineering?
- **When** did engineering begin?
- **Who** can become an engineer and what does it take?
- **Why** you can become an OSU engineer!
FLASH DRIVES LOVE TO STAY IN WHATEVER PC THEY ARE PLUGGED INTO!

• Each semester about 100 drives are turned into HI 244 and are never picked up.

• So if you would like our LOST & FOUND to let you know if your drive wanders away, complete the form and load MY_NAME.xlsx at the top level of your drive.
Today and upcoming

Let’s look at the Class Schedule on the EEIC website for what’s next!
Your Class Schedule for Next Class

**Graphics 2 - Isometric Sketches from Different Viewpoints + Inclined and Curved Surfaces in Isometric**

**Summer Semester 2014**

### Assignments due at the beginning of class:
1. Course Packet: GP-01 Isometric Sketches & Coded Plans
2. Textbook Sec. 2.15: GP-02 Page 2-33, Problem 3, Parts (c), (d), (g), (h)

### Things to do / read / study / learn before class:
1. Read Syllabus
2. Review Student Resource Guide
3. Study the Academic Integrity Preparation document in Word or PDF
4. Review the Academic Misconduct Video
5. Take the Academic Integrity Quiz on Carmen
6. Textbook: Read Sections 2.06; 2.07 Intro [pg. 2-12, 2-13, 2-14, 2-11.01]
7. Carmen: Quiz: Basic Isometric Sketches and Coded Plans
8. Textbook: Read Section 3.06, 3.12.01
9. Carmen: Quiz: Isometric Sketches from Different Viewpoints
10. Textbook: Read Sections 2.07.01, 2.07.02
11. Carmen: Quiz: Inclined Surfaces in Isometric
12. Watch Videos: Circle Sketch; Ellipse on Cube; Hole Through Cube

### In-class activities:
1. Instructor's Powerpoint: Isometric Sketching from Different Views - PDF or Powerpoint
3. Instructor's Powerpoint: Inclined Surfaces in Isometric - PDF or Powerpoint
4. Begin work on: Course Packet: GP-06 Inclined Surfaces in Isometric - due at the beginning of Graphics 3
5. Instructor's Powerpoint: Curved Surfaces in Isometric - PDF or Powerpoint
6. Begin work on: Course Packet: GP-07 Curved Surfaces in Isometric - due at the beginning of Graphics 3
7. Textbook Sec. 3.16: GP-04 Page 3-53, Problem 2, Parts (a), (b), (c), (d) - due at the beginning of Graphics 3
8. Textbook Sec. 3.16: GP-05 Page 3-54, Problem 3, Parts (h), (i), (m) - due at the beginning of Graphics 3
9. Textbook Sec. 3.16: GP-06 Page 3-60, Problem 11, Parts (k), (l), (j) - due at the beginning of Graphics 3

### Assignments to be completed after class:
1. Textbook Sec. 3.16: GP-06 Page 3-53, Problem 2, Parts (a), (b), (c), (d) - due at the beginning of Graphics 3
2. Textbook Sec. 3.16: GP-05 Page 3-54, Problem 3, Parts (h), (i), (m) - due at the beginning of Graphics 3
3. Textbook Sec. 3.16: GP-06 Page 3-60, Problem 11, Parts (k), (l), (j) - due at the beginning of Graphics 3

**Link to the previous class:** Graphics 1 - Course Introduction + Academic Integrity + Basic Isometric Sketches and Coded Plans

**Link to the next class:** Graphics 3 - Orthographic Projection Basics + Hidden Lines

---

1) **Before class**

**Note that normally the pre-class work will not be this extensive!**

2) **Topics covered and activities begun in Class**

3) **After class**

---

This is the last slide normally presented. For any student needing help with **activating their OSU account**, see the following **SUPPLEMENTAL SLIDES**
SUPPLEMENTAL MATERIAL - Logins

- The following material is not intended to be shown during the normal class lecture.
SUPPLEMENTAL MATERIAL

ACTIVATING YOUR OSU ACCOUNT

• If you try to LOGIN into CARMEN and get the error message shown below \textit{because you have not activated your OSU account}, follow the CARMEN instructions illustrated below … select \textit{Login Guide}.

• If you have activated your OSU account, contact 614-688-HELP for assistance and \textit{do not continue} with these \textit{SUPPLEMENTAL SLIDES}.
SUPPLEMENTAL MATERIAL
ACTIVATING YOUR OSU ACCOUNT

- select: **OSU Internet Username**

- select again: **OSU Internet Username**
SUPPLEMENTAL MATERIAL
ACTIVATING YOUR OSU ACCOUNT

- select: 
  Activate Account

- ... and follow the instructions:
  Note that it may take 3–24 hours for your activation to take effect, so completing your Group Creation Survey may be delayed. Inform your Instructor about the delay.