

## Engineering 1281.0xH Engineering Fundamentals & Laboratory I (4 Credits)

Classrooms: HI 206, HI 208, HI 214, or HI 216

### Engineering 1281.0xH

#### Instructors:

Name (.#)*	Office	Phone **
Edgar Casale (.3)	HI 223	292-1563
Paul Clingan (.3)	HI 223	292-1563
Rick Freuler (.1)	HI 244B	688-0499
Deb Grzybowski (.3)	HI 203	
Kathy Harper (.217)	HI 211	688-7538
Rachel Kajfez	HI 211	688-2934
Krista Kecskemety (.1)	HI 211	688-2934

\* **Note:** Instructor e-mail [name.#@osu.edu](mailto:name.#@osu.edu)  
only—not buckeyemail.osu.edu

\*\***Note:** Area code 614

#### Engineering 1281.0xH GTAs:

ENGR 1281.0xH Course Syllabus & Daily Schedule  
Autumn 2013

<b>Name (.#)</b>	<b>Major</b>	<b>Office</b>
Robby Breetz(.3)	ECE	HI 309
Nachi Deshpande(.30)	ISE	HI 309
Chris Hartle(.10)	ECE	HI 209
Meagan Ita (.4)	BME	HI 209
Jen Malik(.87)	BME	HI 309
Ted Rader (.109)	BME	HI 309
Alison Snyder (.776)	ME	HI 309
Andrew Theiss (.19)	BME	HI 309
Sara Vinson(.36)	ISE	HI 209
Pat Wensing (.2)	ECE	HI 209
Beth Yoak (.8)	MSE	HI 209

## Engineering 1281.0xH UTAs:

Name (.#)	Major	Name (.#)	Major	Name (.#)	Major
Brian Anichowski(.1)	ME	Emily Helber(.26)	CBE	Drew Phillips(.1166)	ECE
Katlyn Ashley(.95)	CBE	Nicole Hird(.7)	FABE	Zach Pittenger(.26)	AAE
Erica Brackman(.26)	CBE	Colin Hu(.322)	ECE	Brian Raderstorf(.11)	ME
Matthew Brockman(.65)	BME	Anne Marie Jackson(.1923)	BME	Brielle Reiff(.29)	ME
Cailin Buchanan(.195)	CBE	Patrick Kinnunen(.4)	CBE	Tim Rettig(.61)	ISE
Lizzy Burl(.2)	CSE	Richard Kochert(.8)	CSE	Brian Rice(.609)	AAE
Bill Cohen(.507)	CBE	Paul Lacher(.13)	MSE	Jon Ruffley(.5)	CBE
Nathan Derry(.13)	ECE	Tyler Leonhardt(.25)	CSE	Tabi Smith(.7423)	CBE
Gino DiGeronimo(.20)	ECE	Mikayla Lowenkamp(.1)	BME	Maria Streng(.21)	CBE
Jessica Fleck(.48)	CSE	Radhika Madhavan(.7)	CBE	Aaron Strickland(.106)	CBE
Charles Fletcher(.236)	CBE	Alyssa Manning(.347)	AVN	Anirudh Tarimala(.1)	BME
Lindsey Fox(.809)	BME	Dan Marrinan(.7)	EPHY	Hugo Vanderwalt(.1)	ME
Trever Frye(.1022)	AAE	Maggie Mcconnell(.223)	ECE	Kevin Wegman(.12)	CBE
Mary Ann Ginier(.3)	ME	Leah Milosh(.1)	ME	Kevin Witt(.87)	ECE
Lydia Griffith(.642)	CBE	Sammie Nehrbass(.3)	CBE	Tom Ziebro(.2)	AAE
Brian Grzybowski-Cuff(.1)	ECE	Ryan Newport(.16)	AAE	Hannah Zierden(.3)	CBE
Stefan Heglas(.3)	CBE	Jessica Pax(.9)	ME		

## ***Introduction and Course Organization***

Engineering 1281.0xH is your first course in engineering problem solving and includes engineering fundamentals, computer-aided problem solving, and engineering laboratory. This course is the first in a two-course sequence of Honors Engineering Fundamentals & Laboratory and is coordinated with FEH math, physics, and chemistry courses. This course meets four times a week for a 125-minute class period MTWR in HI 206, 208, 214, or 216. During three out of the four class periods each week, the class will meet for a 125-minute session that will have a brief presentation followed by in-class studio time. All students will be expected to complete preparation assignments prior to class, which may include reading, videos, exercises, or quizzes. For a fourth period each week, excluding the first week and the weeks preceding and including Thanksgiving, the class will consist of a hands-on laboratory exercise, typically preceded by a short lecture. The labs will also include a short preparatory exercise or quiz.

Students requiring help with specific problems of the course should arrange individual meetings with their instructors or teaching assistants during office hours. Items of class management such as submission of problems, attendance, seat assignments, etc., will be handled by your instructor. Students should also note that smoking is prohibited inside all of

the buildings on the OSU campus and that no food or drinks are allowed in the Engineering classrooms or labs.

## **Course Objectives**

The purpose of this course and the other courses of the sequence is to provide you with a knowledge of engineering fundamentals and graphics, engineering communication, engineering problem solving, the design process, how to make measurements, how things work, and experiences in a hands-on laboratory. The objective is to expand that knowledge to a point of maximum usefulness with respect to both your future academic work and professional career.

Successful students will be able to do the following: identify and implement the steps necessary to perform engineering problem solving and the engineering design process; use Excel, MATLAB, and C/C++ to solve engineering problems; identify and use a variety of engineering tools as presented in the labs; and demonstrate effective technical communication skills.

## **Course Grades**

Your performance will be measured by the following: your ability to demonstrate preparation for class, a series of daily application assignments in engineering fundamentals and problem solving, hands-on laboratory exercises and the associated preparation and required reports, two midterm exams, eleven announced in-class quizzes, a hands-on laboratory practical exam, a comprehensive final exam, and a team design project. See the daily schedule presented later in this syllabus for scheduling specifics.

Course grades will be calculated according to the following weighted elements:

Preparation Assignments	10%	Lab Practical	3%
Application Assignments	20%	Quizzes	6%
Extra Weekly Assignments (Bonus)	3%	Midterm Exams	20%
Lab Preparation & Reports	18%	Final Comprehensive Exam	15%
Design Project	5%	Journals	3%

**A minimum grade of 50% is required in every major element (i.e., Preparation & Application Assignments, Quizzes and Exams, Design Project and Lab Work) to receive a passing grade in the course.** For example, a student with less than 50% credit in "Preparation & Application Assignments" would not pass the course, even if the scores in the other major elements of the course were above 50%. You must take each component of the course seriously and complete the assigned work. This policy is applied independently from the overall course grade calculation that appears in the online OSU course management system, Carmen.

The preparation and application assignments, lab materials, and the online quizzes, listed in the daily schedule attached to this syllabus, are available on Carmen. Unless otherwise instructed, the assignments are to be done individually. You may discuss assignments with others at your table or in your class and assist each other in understanding the assignment, but sharing of assignment files or copying another student's assignment is an act of plagiarism. Application assignments that are submitted **on time**, but receive a grade of **60% or less**, will be eligible for "Correct and Return" (C&R). Preparation assignments are

not eligible for C&R. If you receive a grade of 60% or less, you are not required to resubmit the assignment. If you choose to C&R, please ask your teaching assistants for a new copy of the assignment sheet. You must attach the original assignment to your newly submitted assignment and resubmit both within **three** class periods of the return of your original assignment. The final grade recorded will be the average of the two assignments. Also, if an application assignment is turned in late but within 24 hours of the time due, its grade may be reduced by 30%. Application assignments submitted after 24 hours past the time due may be given 0 points. In such cases however, they will be graded for accuracy. Preparation assignments that are not completed on time will receive 0 points. All course grades will be entered into Carmen. It is strongly suggested that you keep all your graded assignments for future reference and frequently check your grades entered in Carmen.

All laboratory hands-on exercises must be completed. Refer to the lab syllabus for the policies on attendance and late laboratory assignments.

Midterm exams will be given on the dates indicated in the daily schedule and will be scheduled for 120 minutes. The design project will be further described as the semester progresses. The comprehensive final exam must be taken at the scheduled time (see daily schedule). No changes to the final exam schedule will be permitted except in genuine emergency situations.

Journal entries must be submitted electronically no later than 11:59 PM each Sunday evening or as otherwise prescribed by the online FEH Journal System (<http://feh.osu.edu/journals.html>).

### ***Computer Laboratory:***

You will be using computer equipment in your regularly scheduled classroom (HI 206, 214, 216, or 346) and will have access to the First-year Engineering Program computer lab located in HI 324. These labs contain Windows-based personal computers, printers, and a variety of application software packages. You will use the computers to work on your assignments and to produce printouts. Although a computer lab manager is usually available in HI 317 during the day to help you with hardware, software, or printer problems, the lab personnel will not help you with assignment-related problems. On the other hand, your instructor and teaching assistants will be available during scheduled classroom hours. Open lab and assistance will also usually be available as announced. You are to use only the software supplied in these labs; that is, you may not install any software onto or copy any software from the lab computers unless specifically permitted. Food and drink are not permitted in the labs or classrooms. Violation of these policies will result in expulsion from the classroom or lab and possible failure in the course.

## **Course Textbooks, Materials, and Equipment**

The following textbooks are required:

- **MATLAB: Intro. with Applications, 4<sup>th</sup> Edition**, by Gilat. ISBN 978-0-470-76785-6
- **C How to Program, 7<sup>th</sup> Edition**, by Dietel & Dietel. ISBN 978-0-132-99044-8

We also recommend the following materials:

- USB Storage/Flash Drive. *Note: At least 3GB storage space on a network drive accessible by FTP (File Transfer Protocol) or Remote Desktop Connection from outside of class is provided by the First-Year Engineering Program.*
- Pad (100 or 200 sheets) of green engineering problem paper

We will be using the following software:

- MATLAB R2012a. *Note: This software may be obtained through the office of the CIO (ocio.osu.edu/software/directory)*
- Cisco AnyConnect VPN Client. *Note: This software may be obtained through the office of the CIO (ocio.osu.edu/software/directory)*
- NX Client. *Note: See class notes and/or Carmen for directions on how to obtain this software.*
- Citrix XenApp. *Note: See class notes and/or Carmen for directions on how to install and use this software.*

## **Useful FEH Program Web Sites**

- |   |                                      |
|---|--------------------------------------|
| • <a href="http://feh.osu.edu">http://feh.osu.edu</a>                     | FEH Program main web page            |
| • <a href="http://carmen.osu.edu">http://carmen.osu.edu</a>               | OSU Carmen main web page             |
| • <a href="http://www.howstuffworks.com">http://www.howstuffworks.com</a> | A useful reference web site          |
| • <a href="http://www.mathworks.com">http://www.mathworks.com</a>         | MathWorks (MATLAB) software web page |

## **ENGR 1281.0xH Course and University Policies**

**Lab policies and safety rules** are intended to minimize the opportunity for accidents or injuries during any hands-on laboratory session. Please note that all tools, equipment, and materials assigned to a team must be returned and formally accounted for at the end of each lab session. Failure to return any OSU item will result in a grade of incomplete for the entire team until the item is found or otherwise accounted for, and the situation will be taken to the Committee on Academic Misconduct.

**The lab safety rules are:**

- No dangling jewelry or loose clothes.
- No open-toe, open-heel footwear of any kind. (You will be asked to leave and return with closed-toe, closed-heel shoes.)
- Be careful with sharp corners.
- Eye protection will be provided and required for some lab activities.
- Know the location of phone and first-aid kit.
- Report ALL injuries to the lab instructor.
- No food or drink in the lab. (You will be asked to leave and dispose of it.)

**Carmen: online course management system.** Carmen is OSU's course management system. Carmen may be accessed at <http://carmen.osu.edu>. For troubleshooting, call 688-HELP or go to <http://elearning.osu.edu/carmen-help/students/index.htm>.

## Uses

- Check the "News" items for any course-related or on-campus activities announcements.
- Check your grades from the "Grades" link on the main toolbar in Carmen.
- Check your syllabus and daily assignment list from the "Content" link and view instructional team contact information on the syllabus.
- Access other evaluation tools: journals, some quizzes, and Purdue Visualization Tests from the Carmen web page.
- Access materials for the course, including class presentations, and supplemental information consisting of exam study guides, video resources, assignment seed files, helpful websites, and common questions and answers about the team projects from the "Content" link on the main toolbar.

**Academic Misconduct** such as cheating or plagiarism will be reported using official university procedures. Policies and procedures can be found in the Code of Student Conduct available online in several places including at [http://studentaffairs.osu.edu/resource\\_csc.asp](http://studentaffairs.osu.edu/resource_csc.asp). Copies may be obtained from Student Conduct, 33 West 11th Avenue, Room 115.

- All cases of suspected misconduct must be reported to the University Committee on Academic Misconduct. Any students observing misconduct should report such to the course instructor.
- The Code of Student Conduct defines academic misconduct to include:
  - Violation of course rules
  - Providing or receiving information during quizzes or exams
  - Submitting plagiarized work of any kind (e.g., written, computer produced, hand-drawn, etc.)
  - Falsification, fabrication, or dishonesty in reporting research results
- As a student, you need to know that faculty members are obligated to report all alleged misconduct cases to the University Committee on Academic Misconduct. Not reporting is not an option.
- For purposes of academic misconduct in any reported cases in any engineering course, the College of Engineering's Associate Dean for Academic Affairs will act as the Department Chair.
- It is acknowledged that the First-Year Engineering Program encourages collaboration among students on some assignments from time to time. However, when an assignment is identified as an individual assignment, the work turned in by an individual must be his or her own individual product.

### **A Test that Faculty May Use to Determine Individual Product:**

- Can you explain and demonstrate how you did each step or element of a problem or exercise?
- Is the work shown in your own words and terms?
- Can the team members work together to understand concepts and explain things to each other?
- Can a team member produce the end product for himself or herself as an individual or explain the process involved?

## **Excerpt from the Code of Student Conduct, Section 3335-23-04 Prohibited conduct:**

Any student found to have engaged in the following conduct while within the university's jurisdiction, as set forth in Section 3335-23-02, will be subject to disciplinary action by the university.

### **A. Academic misconduct**

Any activity that tends to compromise the academic integrity of the university, or subvert the educational process. Examples of academic misconduct include, but are not limited to:

1. Violation of course rules as contained in the course syllabus or other information provided to the student; violation of program regulations as established by departmental committees and made available to students;
2. Knowingly providing or receiving information during examinations such as course examinations and candidacy examinations; or the possession and/or use of unauthorized materials during those examinations;
3. Knowingly providing or using assistance in the laboratory, on field work, or on a course assignment unless such assistance has specifically been authorized;
4. Submitting plagiarized work for an academic requirement. Plagiarism is the representation of another's work or ideas as one's own; it includes the unacknowledged word-for-word use and/or paraphrasing of another person's work, including electronic files, and/or the inappropriate unacknowledged use of another person's ideas;
5. Submitting substantially the same work to satisfy requirements for one course that has been submitted in satisfaction of requirements for another course, without permission of the instructor of the course for which the work is being submitted;
6. Falsification, fabrication, or dishonesty in reporting laboratory and/or research results;
7. Serving as, or enlisting the assistance of a substitute for a student in the taking of examinations;
8. Alteration of grades or marks by the student in an effort to change the earned grade or credit;
9. Alteration of academically-related university forms or records, or unauthorized use of those forms; and
10. Engaging in activities that unfairly place other students at a disadvantage, such as taking, hiding or altering resource material, or manipulating a grading system.

Source: [http://studentaffairs.osu.edu/resource\\_csc.asp](http://studentaffairs.osu.edu/resource_csc.asp)

**Ten Suggestions for Preserving Academic Integrity:** The following suggestions will help you preserve academic integrity by avoiding situations where you might be tempted to cheat or you might be perceived to be cheating.

1. **ACKNOWLEDGE THE SOURCES THAT YOU USE WHEN COMPLETING ASSIGNMENTS:** If you use another person's thoughts, ideas, or words in your work, you must acknowledge this fact. This applies regardless of whose thoughts, ideas, or words you use as well as the source of the information. If you do not acknowledge the work of others, you are implying that another person's work is your own, and such actions constitute plagiarism. Plagiarism is the theft of another's intellectual property, and plagiarism is a serious form of academic misconduct. If you are ever in doubt about whether or not you should acknowledge a source, err on the side of caution and acknowledge it.
2. **AVOID SUSPICIOUS BEHAVIOR:** Do not put yourself in a position where an instructor might suspect that you are cheating or that you have cheated. Even if you have not cheated, the mere suspicion of dishonesty might undermine an instructor's confidence in your work. Avoiding some of the most common types of suspicious behavior is simple.

Before an examination, check your surroundings carefully and make sure that all of your notes are put away and your books are closed. An errant page of notes on the floor or an open book could be construed as a "cheat sheet." Keep your eyes on your own work. Unconscious habits, such as looking around the room aimlessly or talking with a classmate, could be misinterpreted as cheating.

3. **DO NOT FABRICATE INFORMATION:** Never make up data, literature citations, experimental results, or any other type of information that is used in an academic or scholarly assignment.
4. **DO NOT FALSIFY ANY TYPE OF RECORD:** Do not alter, misuse, produce, or reproduce any University form or document or other type of form or document. Do not sign another person's name to any form or record (University or otherwise), and do not sign your name to any form or record that contains inaccurate or fraudulent information. Once an assignment has been graded and returned to you, do not alter it and ask that it be graded again. Many instructors routinely photocopy assignments and/or tests before returning them to students, thus making it easy to identify an altered document.
5. **DO NOT GIVE IN TO PEER PRESSURE:** Friends can be a tremendous help to one another when studying for exams or completing course assignments. However, don't let your friendships with others jeopardize your college career. Before lending or giving any type of information to a friend or acquaintance, consider carefully what you are lending (giving), what your friend might do with it, and what the consequences might be if your friend misuses it. Even something seemingly innocent, such as giving a friend an old term paper or last year's homework assignments, could result in an allegation of academic misconduct if the friend copies your work and turns it in as his/her own.
6. **DO NOT SUBMIT THE SAME WORK FOR CREDIT IN TWO COURSES:** Instructors do not give grades in a course, rather students earn their grades. Thus, instructors expect that students will earn their grades by completing all course requirements (assignments) while they are actually enrolled in the course. If a student uses his/her work from one course to satisfy the requirements of a different course, that student is not only violating the spirit of the assignment, but he/she is also putting other students in the course at a disadvantage. Even though it might be your own work, you are not permitted to turn in the same work to meet the requirements of more than one course. You should note that this applies even if you have to take the same course twice, and you are given the same or similar assignments the second time you take the course; all assignments for the second taking of the course must be started from scratch.
7. **DO YOUR OWN WORK:** When you turn in an assignment with only your name on it, then the work on that assignment should be yours and yours alone. This means that you should not copy any work done by or work together with another student (or other person). For some assignments, you might be expected to "work in groups" for part of the assignment and then turn in some type of independent report. In such cases, make sure that you know and understand where authorized collaboration (working in a group) ends and collusion (working together in an unauthorized manner) begins.
8. **MANAGE YOUR TIME:** Do not put off your assignments until the last minute. If you do, you might put yourself in a position where your only options are to turn in an incomplete (or no) assignment or to cheat. Should you find yourself in this situation and turn in an incomplete (or no) assignment, you might get a failing grade (or even a zero) on the assignment. However, if you cheat, the consequences could be much worse, such as a disciplinary record, failure of the course, and/or dismissal from the University.

9. PROTECT YOUR WORK AND THE WORK OF OTHERS: The assignments that you complete as a student are your "intellectual property," and you should protect your intellectual property just as you would any of your other property. Never give another student access to your intellectual property unless you are certain why the student wants it and what he/she will do with it. Similarly, you should protect the work of other students by reporting any suspicious conduct to the course instructor.
10. READ THE COURSE SYLLABUS AND ASK QUESTIONS: Many instructors prepare and distribute (or make available on a web site) a course syllabus. Read the course syllabus for every course you take! Students often do not realize that different courses have different requirements and/or guidelines, and that what is permissible in one course might not be permissible in another. "I didn't read the course syllabus" is never an excuse for academic misconduct. If after reading the course syllabus you have questions about what is or is not permissible, ask questions!

Source: <http://oaa.osu.edu/coamtensuggestions.html>  
<http://oaa.osu.edu/coamfaqs.html>

Reference:

**Students with Disabilities:** Course materials and exercises can be made available in alternative formats. Please contact the Office for Disability Services (ODS) at 292-3307 for further information and let your instructor know that you intend to make use of ODS facilities.

The ODS facilitates exam accommodations in cooperation with instructors. To make exam accommodations, you must meet with your instructor(s) at the beginning of each semester to discuss your disability and exam accommodation arrangements. Your instructor(s) may choose to provide you with the appropriate exam accommodation(s) in the classroom or at another site under his/her supervision. You have three exam options available to you:

1. Take the exam with the class
2. Take the exam with appropriate accommodations, if you and the instructor agree to a time and place.
3. Schedule your exams at ODS.

**Test accommodations may include but are not limited to:**

- Adaptive technology
- Extended time
- CCTV
- Computer
- Reader
- Scribe
- Scanned exams
- Braille
- Large print
- Distraction reduced space
- Raised table
- Tape recorded exam

**For exam accommodations through ODS:**

- Obtain "Proctor Checklist" from ODS for each course. New Proctor Checklists must be obtained each semester. They do not transfer from semester to semester.
- Have instructor fill out the "Proctor Checklist" completely including signatures required (refer to specific instructions on the back of the form). Incomplete checklists may result in exams not being scheduled.
- Give instructor the pink copy of the checklist after being completed and before bringing the white and yellow copies to ODS.
- Mark on the checklist(s) the accommodations that are appropriate for each exam. Accommodations may not be made available to you on the day of the exam if you did not indicate them on the checklist(s).
- Personally bring (do not mail) all completed Proctor Checklists to ODS at the beginning of each semester to schedule exams for the entire semester or at least within five days of your exam or quiz. You are more likely to get your accommodations, equipment, or space that you need.

The student is directed to the "[Exam Accommodations](#)" portion of the Office for Disability Services web site for the most current information on ODS exam accommodations, including rules and procedures for Scheduling Exams, Lateness, Illness, No Show, Cancellation, and Rescheduling Policies. Failure to notify ODS of cancellations or changes of scheduled exam times may result in the possible loss of exam accommodations through ODS.

Source: [http://www.ods.osu.edu/services\\_exam.asp](http://www.ods.osu.edu/services_exam.asp)

**Ohio State Sexual Harassment Policy:** The University administration, faculty, staff, student employees, and volunteers are responsible for assuring that the University maintains an environment for work and study free from sexual harassment. Sexual harassment is unlawful and impedes the realization of the University's mission of distinction in education, scholarship, and service. Sexual harassment violates the dignity of individuals and will not be tolerated. The University community seeks to eliminate sexual harassment through education and by encouraging faculty, staff, student employees, and volunteers to report concerns or complaints. Prompt corrective measures will be taken to stop sexual harassment whenever it occurs.

Source: <http://hr.osu.edu/policy/policy115.pdf>

**Student Permission for Program Publicity:** During your participation in the First-Year Engineering Program, photographs, printed material, and videotapes may be made for the purpose of informing the university community and the general public about activities in the college. Student images in the above media may be used to promote college programs and to make public announcements of student accomplishments and those

of other students. If you do not wish for your image to be used, please contact Dr. John Merrill in 244 Hitchcock Hall or at [Merrill.25@osu.edu](mailto:Merrill.25@osu.edu).

Week	Class/Lab	Topic	Preparation Due	Application	
				Started	Due
01 (8/21)	Class 01	Introduction to Engineering			
	Class 02	Problem Solving Academic Integrity	PRE B02-1 (CQ)	APP B02-1 APP B02-2	
02 (8/26)	Class 03	Excel - Introduction & Data Analysis	PRE B03-1	APP B03-1	APP B02-1 APP B02-2
	Class 04	Excel - Referencing & Graphing	PRE B04-1	APP B04-1 APP B04-2	APP B03-1
	Class 05	Collecting & Analyzing Data	PRE B05-1	APP B05-1	APP B04-1 APP B04-2
	Lab 01	Marble Carrier	See Lab Syllabus		
03 (9/2)	Monday 9/2 - Labor Day - No Class				
	Class 06	<b>Quiz 1</b> Technical Communication	PRE B06-1 (CQ)	APP B06-1	APP B05-1
	Class 07	Excel - Problem Solving in Excel	PRE B07-1	APP B07-1	APP B06-1
	Lab 02	Spot Speed Study	See Lab Syllabus		
04 (9/9)	Class 08	<b>Quiz 2</b> Intro to Computer Problem Solving	PRE B08-1 (CQ)	APP B08-1	APP B07-1
	Class 09	Structured Approach to Problem Solving	PRE B09-1 (CQ)	APP B09-1	APP B08-1
	Class 10	Engineering Ethics	PRE B10-1 (CQ)	APP B10-1 APP B10-2	APP B09-1
	Lab 03	P&G Product Launch Case Study	See Lab Syllabus		
05 (9/16)	Class 11	<b>Quiz 3</b> MATLAB - Script Files	PRE B11-1 (CQ)	APP B11-1	APP B10-1 APP B10-2
	Class 12	MATLAB - Input & Output	PRE B12-1 (CQ)	APP B12-1	APP B11-1
	Class 13	MATLAB - File Input & Output	PRE B13-1 (CQ)	APP B13-1	APP B12-1
	Lab 04	Analog Electronics	See Lab Syllabus		
06 (9/23)	Class 14	<b>Quiz 4</b> MATLAB - Repetition	PRE B14-1 (CQ)	APP B14-1	APP B13-1
	Class 15	MATLAB - Graphing	PRE B15-1 (CQ)	APP B15-1	APP B14-1
	Class 16	MATLAB - Logical Operators	PRE B16-1 (CQ)	APP B16-1	APP B15-1
	Lab 05	Data Acquisition	See Lab Syllabus		

<b>MT1</b>		<b>Monday 9/30 - MIDTERM 1</b>			
07 (9/30)	Class 17	MATLAB - Functions	PRE B17-1 (CQ)	APP B17-1	APP B16-1
	Class 18	MATLAB - Vectors & Matrix Arithmetic	PRE B18-1 (CQ)	APP B18-1	APP B17-1
	Lab 06	Digital Electronics	<i>See Lab Syllabus</i>		
08 (10/7)	Class 19	<b>Quiz 5</b> MATLAB - MATLAB Special Features	PRE B19-1 (CQ)	APP B19-1	APP B18-1
	Class 20	MATLAB - Synthesis	PRE B20-1 (CQ)	APP B20-1	APP B19-1
	Class 21	MATLAB - Modeling & Simulation	PRE B21-1 (CQ)	APP B21-1	APP B20-1
	Lab 07	AC Electricity	<i>See Lab Syllabus</i>		

Abbreviations: CQ - Carmen Quiz SDP - Software Design Project

Week	Class/Lab	Topic	Preparation Due	Application	
				Started	Due
09 (10/14)	Class 22	<b>Quiz 6</b> UNIX Computing Environment	PRE B22-1 (CQ)	APP B22-1	APP B21-1
	Class 23	C/C++ - Introduction to C	PRE B23-1 (CQ)	APP B23-1	APP B22-1
	Class 24	C/C++ - Input & Output, File Output, Intro to Pointers	PRE B24-1 (CQ)	APP B24-1	APP B23-1 APP B23-2
	Lab 08	Aerodynamics & Propulsion	<i>See Lab Syllabus</i>		
10 (10/21)	Class 25	<b>Quiz 7</b> C/C++ - Repetition & Selection Structures	PRE B25-1 (CQ)	APP B25-1	APP B24-1
	Class 26	C/C++ - Arrays & Debugging	PRE B26-1 (CQ)	APP B26-1	APP B25-1
	Class 27	C/C++ - File Input	PRE B27-1 (CQ)	APP B27-1	APP B26-1
	Lab 09	Viscosity	<i>See Lab Syllabus</i>		
11 (10/28)	Class 28	<b>Quiz 8</b> C/C++ - Pointers	PRE B28-1 (CQ)	APP B28-1	APP B27-1
	Class 29	C/C++ - Synthesis & Debugging	PRE B29-1 (CQ)	APP B29-1	APP B28-1
	Class 30	C/C++ - Strings	PRE B30-1 (CQ)	APP B30-1	APP B29-1
	Lab 10	DC Motor Testing	<i>See Lab Syllabus</i>		
12 (11/4)	<b>MT2</b>	<b>Monday 11/4 - MIDTERM 2</b>			
	Class 31	Programming the Proteus	PRE B31-1 (CQ)	APP B31-1	APP B30-1
	Class 32	C/C++ - User-written Functions	PRE B32-1 (CQ)	APP B32-1	APP B31-1
	Lab 11	Materials Testing	<i>See Lab Syllabus</i>		
13 (11/11)	<i>Monday 11/11 - Veterans' Day - No Class</i>				
	Class 33	<b>Quiz 9</b> C/C++ - Introduction to Structs	PRE B33-1 (CQ)	APP B33-1	APP B32-1
	Class 34	C/C++ - Structs Continued	PRE B34-1 (CQ)	APP B34-1	APP B33-1
	Lab 12	Control of a Stoplight	<i>See Lab Syllabus</i>		
14 (11/18)	Class 35	<b>Quiz 10</b> C/C++ - C++ Enhancements to C	PRE B35-1 (CQ)	APP B35-1	APP B34-1
	Class 36	C/C++ - Classes & Data Abstraction	PRE B36-1 (CQ)	APP B36-1	APP B35-1
	Class 37	C/C++ - Objects	PRE B37-1 (CQ)	APP B37-1	APP B36-1
	Class 38	Team Building Engineering Design Process	PRE B38-1 (CQ)	APP B38-1	APP B37-1
15 (11/25)	Class 39	<b>Quiz 11</b> SDP - Introduction		SDP	
	Class	<b>LAB PRACTICAL</b>			

	40	SDP - Documentation & Software														
<i>Wednesday and Thursday 11/27-11/28 - Thanksgiving - No Class</i>																
16 (12/2)	Class 41	SDP - Testing														
	Class 42	SDP - Demonstration			SDP											
	<b>FIN</b>	<b>Thursday 12/5 - FINAL EXAM* (Regular Classroom)</b>														
		<table border="1"> <thead> <tr> <th>1281H Class Time</th> <th>Final Exam Time</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">8:00</td> <td style="text-align: center;">8:00am-9:45am</td> </tr> <tr> <td style="text-align: center;">10:20</td> <td style="text-align: center;">10:00am-11:45am</td> </tr> <tr> <td style="text-align: center;">12:40</td> <td style="text-align: center;">2:00pm-3:45pm</td> </tr> <tr> <td style="text-align: center;">3:00</td> <td style="text-align: center;">4:00pm-5:45pm</td> </tr> </tbody> </table>		1281H Class Time	Final Exam Time	8:00	8:00am-9:45am	10:20	10:00am-11:45am	12:40	2:00pm-3:45pm	3:00	4:00pm-5:45pm			
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<p>*Note this may be different than what appears on the registrar's schedule.</p> <p>Notify your instructor as soon as possible if you have a conflict.</p>																

Abbreviations:

CQ - Carmen Quiz    SDP - Software Design Project