

Transforming Ideas to Innovation II – Syllabus

Syllabus Update for the COVID-19 Contingency Plan – 03/13/2020

Due to circumstances beyond our control, we must make changes to our course operations, deadlines, and grading while Purdue is requiring virtual classroom instruction. Changes specific to the transition to a virtual classroom are summarized below and highlighted with green headings. All other course requirements remain as stated in the original course syllabus (blue headings).

Communication

Your ENGR 132 teaching team will communicate with you primarily via Purdue email, Blackboard, and Webex. Your instructor may use different tools as necessary and will inform you of those through Purdue email. You should monitor your Purdue email daily.

Content Delivery

Your course materials will primarily be hosted on Blackboard along with secondary locations.

Online Modules for Project Content

ENGR 132 will now have online modules for the project. You will need to watch these as assigned. You can find those online modules in three locations: Blackboard, YouTube, and Box.com.

Online Module Activities

There are now interactive project components to the online modules. Work virtually with your team to complete those activities.

Assignment Materials

Assignment materials will be posted to Blackboard. If necessary, materials may also be posted to a second location for download.

Help Sessions

Your teaching team will provide regular help sessions on a virtual discussion platform.

Attendance

Formal attendance will not be taken while face-to-face classes are suspended. Students are expected to engage with the course material on the same timelines as they would if meeting face-to-face. Engagement will be logged via team reporting and participation on class discussion boards.

Grading

Assignments

Assessments will continue as planned. Submit your work as instructed in each assignment, within the timeframe provided.

Exams

Exam 3 will be given, but the format and timeline are still under consideration. Exam 3 will not be given prior to April 13, 2020.

*The original course syllabus follows**Course Overview*

ENGR 13200 builds upon the knowledge, skills, and practices covered in ENGR 13100.

Course Outcomes

In ENGR 13200, you will learn to:

- apply basic programming concepts to the solution of engineering problems,
- represent and interpret data in multiple formats,
- develop, select, modify, and justify mathematical models to solve an engineering problem,
- function effectively as a member of a team, and
- demonstrate habits of a professional engineer.

Learning Objectives

At the end of this course, you will be able to:

- Develop code solutions that address engineering questions and follow professional programming standards.
- Understand and implement basic and intermediate programming structures: sequential structures, selection structures, repetition structures, and nested structures.
- Create adaptable, reusable programming routines.
- Read and apply flowcharts as a visual representation of a process.
- Analyze and model data using regression techniques.
- Make appropriate predictions using a mathematical model.
- Apply design ideas to programming solutions.
- Use evidence to evaluate, test, and optimize ideas and solutions
- Communicate engineering concepts, ideas, and decisions effectively and professionally in diverse ways such as written, visual, and oral.
- Contribute to team products and discussions.
- Design high quality technical solutions that meet client and user needs.

Course Content

ENGR 13200 covers the following topics during the semester:

- MATLAB Basics: Calculations, Scripts, Importing Data, Publishing Code, Relational Operators, Logical Operators, Plotting Data, User-Defined Functions, Selection Structures, While Loops, For Loops, and Complex Loops
- Linear Regression and Non-linear Regression
- Flowcharts
- Teaming: Team Dynamics, Team Member Roles, Diversity, Teamwork Dimensions, Code of Cooperation, Peer & Team Evaluation, and Dealing with Issues
- Team Project: Brainstorming, Algorithm Development, Data Analysis, Mathematical Modeling, Regression, Solution Refinement, and Technical Brief Development

Teaching Team

Each section of ENGR 13200 is served by a teaching team that includes one instructor, one graduate teaching assistant (GTA), four undergraduate teaching assistants called Peer Teachers (PTs), and one or two undergraduate graders. See the Course Contacts in Blackboard for names and contact information for your section's instructor and GTA – click on Getting Help in the left-hand navigation menu and then select Course Contacts in the resulting folder. For answers to administrative questions, visit the FYE Operations Center located in ARMS B122.

Class Organization

You will attend two 110-minute class sessions each week. One session each week will occur in the classroom ARMS B061, while the other will occur in the classroom ARMS B098. In class, you will participate in lectures and work on problem sets and projects. Additionally, each week, you will have online modules to watch, exploration activities to perform, and learning objective assessments to take. Three exams will occur during the semester. For exam dates, see the student schedule in Blackboard – click on Syllabus & Key Info in the left-hand navigation menu and then select Student Schedule in the resulting folder. Instead of reading chapters in a textbook, you are expected to watch online modules and complete other assignments *before* coming to class. Instructors will assume you have completed these tasks prior to each class session.

Teaming

You will be assigned to a team in this course. On this team, you will complete many assignments and activities. Your performance as a team member is part of your course grade.

Required Materials

- Textbook: *No textbook is required.* All required readings, modules, assignments, etc. are available on Blackboard.
- Laptop Computers: Each classroom has a limited number of laptop computers available. If possible, bring your own laptop with you to class.

Software Tools

You will use the following software in ENGR 13200.

- Blackboard: The ENGR 13200 teaching team will communicate with you primarily via Blackboard outside of class. Within Blackboard, you will have access to course announcements, schedules, assignments, practice exams, grades, feedback, and course resources. **Preferred browser:** Information Technology at Purdue (ITaP) recommends Google Chrome or Mozilla Firefox when accessing Blackboard. If you are using another browser or a mobile device, you may be unable to access some Blackboard content.
- Gradescope: You will submit homework and other assignments to Gradescope for grading.
- CATME: You will use CATME to submit information used for Team Formation and Peer & Team Evaluations ([Link to CATME](#)).
- MATLAB: You will use version 2018b or newer. Most students purchase either the MATLAB Student version (\$49) or the MATLAB and Simulink Student Suite (\$99) via the [MathWorks Store](#). Past students reported they were glad that they purchased a student license.
- Software Remote: Alternate access to MATLAB ([Link to Software Remote](#)).

- MS Office: Word, Excel, and PowerPoint.
- Adobe: PDF

Support

During class, you can obtain help with understanding course topics and assignments from the various members of the teaching team. Help sessions are also available each week during evening office hours. Students with disabilities can receive assistance from the Disability Resource Center (DRC), and students suffering with mental health issues can receive support from Counseling and Psychological Services (CAPS).

Help Sessions

Graduate teaching assistants and peer teachers provide ENGR 13200 help sessions each week. Attendance at help sessions is an opportunity for you to receive guidance in determining answers to specific questions. See Blackboard for scheduled times and locations – click on Help in the left-hand sidebar and then locate the Help Sessions entry in the folder. Additional help is also available from your GTA and instructor; contact them for more information.

Students with Disabilities

Purdue University strives to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please discuss options with your instructor. You are also encouraged to contact the Disability Resource Center (contact information below). If you are eligible for academic accommodations because you have a documented disability that will affect your work in this class and/or at an exam, please schedule an appointment with your instructor or see a member of the Instructional Support Team (IST) in ARMS B122 as soon as possible to discuss your needs. At these meetings, bring your “Letter of Accommodation” that you obtained from the Disability Resource Center (DRC: drc@purdue.edu or 765-494-1247) so that your instructor and the IST can make proper accommodations for you.

Resources for Mental Health

Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS). CAPS is accessible via 765-494-6995 and [Purdue Counseling & Psychological Services](#) during and after hours, on weekends and holidays, or through its counselors physically located in the Purdue University Student Health Center (PUSH) during business hours.

Evaluating Proficiency

The teaching team will assess your performance via individual assignments, team assignments, and exams. This section specifies how the points you earn lead to the assignment of your grades and how you can make a re-grade request.

Grades

The teaching team will assign your semester grade according to the total points you earn as detailed in the table below. **Note:** The teaching team will **not** round up your semester grade.

Grade	Value
A	Greater than or equal to 94%
A-	Greater than or equal to 90% and less than 94%
B+	Greater than or equal to 87% and less than 90%
B	Greater than or equal to 84% and less than 87%
B-	Greater than or equal to 80% and less than 84%
C+	Greater than or equal to 77% and less than 80%
C	Greater than or equal to 74% and less than 77%
C-	Greater than or equal to 70% and less than 74%
D	Greater than or equal to 60% and less than 70%
F	Less than 60%

Points are earned as shown in the table below. Access the different assignments using the links in the left sidebar in the course's Blackboard site. While some points are earned individually, ~35% of the total points are earned for work performed and submitted as a team. Failure to adequately engage in team activities may result in individual loss of credit on work that was turned in as a team.

Category	Total Points
Module Quizzes	70
MATLAB Assignments	160
Exams	360
Project	300
Teaming	100
Other	10
<i>Total</i>	1000

To pass ENGR 13200 and move on to an engineering school program, your final grade in ENGR 13200 must be a C- or better (i.e., at least 700 total points). Further, you must also demonstrate sufficient mastery of the first two course goals at the beginning of this syllabus by earning at least 50% of the possible points on the Exams (individual portion) and the MATLAB assignments (individual portions), combined.

Grading

The purpose of grading is to assess your understanding and utilization of the concepts taught in the course, and to provide you with feedback about the strengths and weaknesses evident in your work. Full credit may be awarded on items that are mostly correct even if the work still contains errors in understanding. Therefore, it is important that you not only check your score on a particular assignment or exam, but also review the feedback provided by the graders. This feedback will help you improve your understanding of the concepts being assessed and, in turn, improve your performance on future work.

Concerns About Grading

If you have concerns about how an assignment was graded, send an email to your graduate teaching assistant (GTA) with a detailed description of the concern within **seven days** after the graded assignment was revealed in Blackboard. Please see **Communication with the Teaching Team** (below) for proper email etiquette.

Professional Expectations

Each Professional Expectation (PE) in ENGR 13200 reinforces the idea that everyone in our learning environment helps shape the environment so that it is positive and productive for all. This includes arriving for class on time and being prepared, focusing on course activities during class, controlling your behavior to minimize distractions to those around, and engaging with others in a respectful and professional manner.

Attendance

It is important for you to attend, and to be on time for, each meeting of ENGR 13200 because in-class time is important to ensuring full contributions to team assignments. Teams that use their in-class time effectively minimize their out-of-class time. Attendance is taken every class, and absences and tardies are recorded.

We know that you may occasionally need to be late or to miss a full class. You are allowed up to three total absences that can be taken for any reason, without penalty, and will be the sum of tardies and absences.

The teaching team will take attendance immediately after class starts. You will be marked present if you are in your seat and absent if you are not. If you arrive late, you are responsible for quietly checking in with the teaching team to request that your absence be changed to a tardy; not all requests will be granted.

Category	Definition	Attendance Record
Present	Seated with team at start of class.	0.0 absence
Tardy	Arrived late, tardy approved by the designated teaching team member.	0.5 absence
Absent	Did not attend class <i>or</i> tardy was not approved.	1.0 absence

After you accumulate more than 3.0 total absences, you will start to incur an absence penalty with each additional tardy and/or absence. **The penalty is -20 points for every absence (or -10 points for every 0.5 absence) over the allowed 3.0 absences.**

Example: A student has three tardies and two absences, and so has 3.5 total absences. This student will receive a 10-point deduction off their total grade.

Example: A student has zero tardies and five absences, and so has 5.0 total absences. This student will receive a 40-point deduction off their total grade.

Please note that if you accumulate more than 6.0 total absences (i.e., the combination of absences and tardies), you will fail the course.

Use your three allowed absences wisely. If you know you have a commitment that will require you to miss class, then plan accordingly so you do not exceed three absences during the semester.

Please see your instructor if you have an exceptional situation that requires you to **exceed three total absences**, such as a severe or prolonged illness, medical or family emergency, NCAA sports commitment, or an approved grief absence from the Office of the Dean of Students. ([Link to Student Regulations from the Dean of Students](#))

Note: Because you will often spend class time working with your team and many assignments are team assignments, notify your team members if you will be absent for any reason, planned or unplanned.

Dress Code

Personal hygiene and proper attire are important. Out of respect for yourself and your classmates, please come to class clean, free of odors, and dressed in a way that is appropriate for all class activities and is respectful, non-distracting, and non-offensive to others.

Food & Drink

In order to protect classroom and personal property and to eliminate unnecessary distractions, the following food and drink policies will apply in the ENGR 13200 classrooms.

- Food: **No food is allowed in the classrooms.**
- Drink: Drinks are allowed, but they **must have secure lids.**

PE Deductions

The instructional team will deduct points from your semester total for behavior that is disruptive to your class or to your team's dynamics and performance. Example deductions follow:

- -5 for sleeping in class
- -5 for using a computer or a cell phone for non-class purposes
- -5 for behavior that is disruptive to the class, the team, or an inclusive classroom environment
- Up to -25 for observed behavior disruptive to team dynamics/performance

Note: Additional *PE Deductions* may be added. Your instructor will notify you of these.

Late Work

In general, late work is not accepted. Late work is accepted only when you have an approved grief absence or an exceptional situation such as a severe or prolonged illness, or a medical or family emergency. In these situations, arrange submission of your late work with your graduate teaching assistant (GTA).

Communication with the Teaching Team

When communicating with members of your ENGR 13200 teaching team, your email must originate from *your Purdue email account* and include:

- your name
- ENGR 13200 section number and team number (once teams are assigned)
- topic (e.g. assignment name)
- a detailed description of your concern

Allow at least 24 hours for emails to be answered.

For professional communication, make sure your email is:

- appropriately addressed to the recipient (e.g., not “Hey,” but “Dear Professor”),
- includes a helpful subject line with ENGR 13200 included (e.g., “ENGR 13200: Question about PS3”),
- written in complete sentences,
- specific (e.g., not “I have a question on the assignment” but “I have a question on part 2 of problem set 3”),
- concludes with an expression of appreciation for the reader’s time or help.

Course Equipment Responsibilities

Some sections of ENGR 132 may elect to use special equipment (e.g., TI kits and LabVIEW boards) for certain assignments and/or project milestones. If your section uses special equipment, you are responsible for the following:

- Only use equipment for work related to the First-Year Engineering course.
- When your GTA issues the equipment, confirm that the inventory is complete and in good condition.
- Handle the equipment with care and respect.
- Notify your instructor or GTA right away if you encounter equipment that is inoperable or in need of repair.
- Return all equipment to your GTA as directed by your instructor:
 - a. All equipment must be returned in good working order.
 - b. If any parts are damaged or not returned, you are responsible for the associated replacement cost, and you will receive an Incomplete grade for the course until you pay the complete replacement cost.

Academic Integrity

You are a member of the Purdue community—a community that values integrity. You are expected to be familiar with and to abide by the following university policies and procedures:

- [Statement of Integrity and Code of Conduct](#)
- [Code of Honor](#)

You are also expected to fulfill Purdue’s student-created honor pledge:

“As a Boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together – We are Purdue.”

Academic dishonesty is defined by Purdue as “cheating, plagiarism, or knowingly furnishing false information to the University.” Academic dishonesty includes, but is not limited to the following:

- Looking at another student’s paper during a test
- Submitting homework obtained from another student
- Allowing someone else to do the work and then submitting it under your own name
- Helping someone else commit academic dishonesty, such as giving them homework to copy or allowing them to cheat from your test paper
- Copying word for word or lifting phrases or special terms from a source or reference without proper attribution (plagiarism)
- Allowing someone else to access your Purdue computer accounts or computer files

Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breaches of this value by either emailing integrity@purdue.edu or by calling 765-494-8778. While you may submit information anonymously, the more information you provide the greater the opportunity for the university to investigate the concern.

In ENGR 13200, you will submit both individual and team assignments. While team assignments are understood to be the work of a team, individual assignments you submit **must be your own work.**

The FYE instructional team periodically checks student work for various forms of academic dishonesty. This check is performed manually and also via automated similarity checkers such as MOSS ([Link to MOSS](#)). If academic dishonesty occurs, consequences may include:

- A zero on the entire assignment or exam in question
- Forwarding your name to the Office of the Dean of Students
- A lowered or failing grade in the course

Material Copyrights

The ENGR 13200 materials and their notes are copyrighted or derivatives of copyrighted materials and shall not be sold, bartered, or posted on sites such as Course Hero, Chegg, and Quizlet without express permission from your instructor *and* the Associate Head of First-Year Engineering.

Course Policies

In ENGR 13200, you are expected to comply with all policies on the [University Policies](#) website as well as those listed below.

Changing Sections

You may change your ENGR 13200 section until the last day on which you are permitted to add a course via MyPurdue, which is the *first day of class* during the second week of the semester. No changes are allowed after this date. **Note:** that once you drop a section, there is no guarantee that space will be available in another section. See an FYE Advisor in ARMS 1300 for additional information.

Nondiscrimination

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs and values expressed by students and staff involved in this course. We support Purdue's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disability, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

For additional information about diversity and nondiscrimination at Purdue, visit the following websites:

- [Purdue nondiscrimination policy statement](#)
- [Purdue Division of Diversity & Inclusion](#)

Emergency Response Procedures

Purdue University has an Integrated Emergency Management Plan (IEMP). This plan includes procedures, processes, and plans for responding to an emergency. Visit the [Emergency Preparedness website](#) for more information.

It is also important to be familiar with the following classroom emergency response procedures.

Emergency: For ANY emergency, call 911 (fire, medical emergency, etc.).

- ARMS B061: Phone is in the corner of the room by the podium.
- ARMS B098: Phone is in the internal hallway by the printer.

Fire Alarm or Evacuation: Gather all critical personal belongings and exit the building using the stairs. Do not use the elevator.

- ARMS B061: Proceed up the stairs by Amelia's Cafe.
- ARMS B098: Proceed up the stairs by B122 (away from Amelia's).

Meet in the emergency assembly area in the grass between Civil Engineering and the Johnson Hall of Nursing.

- **Shelter in Place:** Could occur due to tornado, accidental release of toxic chemicals, shots fired on campus, etc.
- **Tornado:** Stay in the classroom. In B098, move away from any glass and sit on the floor.
- **Other situations:** The course of action will depend upon the situation; FYE has an extensive emergency plan that will be put into action.
- **Recommendation:** Remain in the classroom and wait for further instructions.

Note: In any situation, follow instructions from emergency response personnel (police, fire department, etc.) when they are present.

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. Information about any changes will be available in Blackboard.