

ENGR 601: Doctor of Engineering Fundamentals

Course Information

Course credit hours: 1

Instructional Modality: Asynchronous online

Course Brightspace Page: <https://purdue.brightspace.com/d2l/login>

Prerequisites: None

Instructor Contact Information

- Karen Marais
 - Email: kmarais@purdue.edu
 - Phone: 765.494.0063
 - Virtual office hours: by arrangement
 - Communication Expectations: I am happy to meet with you! When requesting a meeting, please send me your availability for the next week. I can accommodate meetings as late as 6:30-7 pm EST/EDT. Email is the preferred communication method. I will do my best to reply within one business day.

Course Description

This one-credit course is designed to guide students in creating individual development plans tailored to their academic and professional aspirations as part of the Doctor of Engineering (D.Eng.) program. Students will learn to assess their skills, interests, and values, aligning them with potential research and academic paths. The course will cover setting realistic goals, identifying resources, and developing strategies for personal and academic growth. The course will also detail the differences between a professional doctorate (D.Eng) and a PhD program. Students will engage in workshops and activities that foster self-reflection and practical planning skills. By the end of the course, students will have a personalized roadmap that outlines the steps necessary to achieve their graduate school objectives.

As the foundational course for the Doctor of Engineering program, students are expected to take this course during their first year of the program.

Course Learning Outcomes (CLOs)

By the end of the course, you will be able to:

1. **CLO1:** Create an individual development plan (IDP).
2. **CLO2:** Understand graduate school and how it aligns with your professional objectives.
3. **CLO3:** Develop a workflow and plan for your studies.
4. **CLO4:** Establish professional and academic connections with students and faculty in the D.Eng. program.

Learning Resources, Technology & Texts

Required Texts

- None

Software/Web Resources

- Word Processor (i.e. MS Word). Remember that [MS Office is free for all Purdue students](#).

Brightspace Learning Management System (LMS)

- Access the course via Purdue's Brightspace learning management system. Begin with the Start Here section, which offers further insight into the course and how you can be successful in it. It is strongly suggested that you explore and become familiar not only with the site navigation but also with the content and resources available for this course. See the Student Resources widget on the Brightspace homepage for resources on Technology, Academics, Campus, and Health and Well-Being.

Academic Support

- [Purdue OWL](#) – The online writing lab offers global support through online reference materials and services for creating citations, cover letters, major-specific writing help, and general writing advice.
- Visit [Ask a Librarian](#) to connect with helpful resources and services provided by the Purdue Libraries and School of Information Studies for course assignments and projects.
- The [Thesis and Dissertation Office](#) assists graduate students in the formatting and depositing of their theses. Our staff will consult with you to ensure that your thesis is appropriately formatted for defense.

Assignments

Your achievement of course learning outcomes will be assessed through weekly assignments and the creation and completion of an Independent Development Plan (IDP). As a one-credit course that takes place over 8 weeks, we expect that this course will take about 4-5 hours each week. Details on these assignments, including a schedule of due dates, and rubrics to guide evaluation will be posted in Brightspace.

Assessments	Due	Weight
Weekly Assignments	Sundays at 11:59 PM ET*	50%
Individual Development Plan	Every week beginning in Module 3; Sundays at 11:59 PM ET*	50%

*Note that in the final week of the course, assignments will be due on Friday (not Sunday).

- Weekly Assignments:** Each week, you will have the opportunity to achieve course learning outcomes through a variety of small assignments that can be completed remotely and submitted via Gradescope or Brightspace. Please read the feedback that I provide for ways to enhance your learning going forward and consult with me for questions and additional support. You can expect to receive feedback within one week of the assignment due date.
- Individual Development Plan:** This assignment relates to course learning objective #4 and involves a self-analysis of your learning needs for the D. Eng. and a plan to achieve them. You can expect to receive feedback within one week of the assignment due date.

Grading Scale

Your course grade will be based on the following grading scale:

Letter Grade	Percentage
A+	97-100%
A	92-96%
A-	90-91%
B+	87-89%
B	84-86%
B-	80-83%
C+	77-79%
C	74-76%
C-	70-73%

Letter Grade	Percentage
D+	67-69%
D	64-66%
D-	60-63%
F	0-59%

Course Schedule

Modules	Suggested Dates*	Assignments
Module 1: Introductions	6/16 – 6/22	<ul style="list-style-type: none"> • Assignment 1 <ul style="list-style-type: none"> ○ Due: Week 1 Sunday at 11:59 PM ET
Module 2: Core Academic Resources	6/23 – 6/29	<ul style="list-style-type: none"> • Assignment 2 <ul style="list-style-type: none"> ○ Due: Week 2 Sunday at 11:59 PM ET
Module 3: Expanding Your Resource Network	6/30 – 7/6 <i>Fourth of July: 7/4</i>	<ul style="list-style-type: none"> • Assignment 3 • IDP 1: Skills Assessment <ul style="list-style-type: none"> ○ Both Due: Week 3 Sunday at 11:59 PM ET
Module 4: Understanding the Research Ecosystem	7/7 – 7/13	<ul style="list-style-type: none"> • Assignment 4 • IDP 2: Iteration 1 - Initial Draft and Submit for Peer Review <ul style="list-style-type: none"> ○ Both Due: Week 4 Sunday at 11:59 PM ET <p>NOTE: You must submit IDP 2 by the due date to allow enough time for your partner to review. If you submit after the due date, I may deduct points during the <i>Instructor Feedback</i> portion.</p>
Module 5: Research Phases	7/14 – 7/20	<ul style="list-style-type: none"> • Assignment 5 • IDP 3: Peer Review <ul style="list-style-type: none"> ○ Both Due: Week 5 Sunday at 11:59 PM ET
Module 6: Building Research Skills and Connections	7/21 – 7/27	<ul style="list-style-type: none"> • Assignment 6 • IDP 4: Iteration 2 – Peer Feedback Edits and Submit for Instructor Feedback <ul style="list-style-type: none"> ○ Both Due: Week 6 Sunday at 11:59 PM ET
Module 7: Research Study Design	7/28 – 8/3	<ul style="list-style-type: none"> • Assignment 7 <ul style="list-style-type: none"> ○ Due: Week 7 Sunday at 11:59 PM ET
Module 8: Research Documentation and Publishing	8/4 – 8/8	<ul style="list-style-type: none"> • Assignment 8 • IDP 5: Final Iteration – Instructor Feedback Edits <ul style="list-style-type: none"> ○ Both Due: Week 8 Friday at 11:59 PM ET. <p>NOTE: DUE TO THE END OF SUMMER COURSES, THESE ASSIGNMENTS ARE DUE ON FRIDAY.</p>

*The first four weeks of material will be available on the first day of the course. I have included some suggested review dates here for you to complete the materials in each of the eight modules. The **due dates** for assignments are **required**. Contact me in advance if you anticipate that you will not be able to complete an assignment on time.

Netiquette

We want to foster a safe online learning environment. All opinions and experiences, no matter how different or controversial they may be perceived, must be respected in the tolerant spirit of academic discourse. You are encouraged to comment, question, or critique an idea, but you may not attack an individual. We love it when you can both challenge and build on the ideas of others. Our differences, some of which are outlined in the University's nondiscrimination statement below, will add richness to this learning experience. Please consider that sarcasm and humor can be misconstrued in online interactions and generate unintended disruptions. Working as a community of learners, we can build a polite and respectful course ambiance.

Please read the Netiquette rules for this course:

- Monitor how much space/time you are taking up in any discussion. Give other students the opportunity to join in the discussion.
- Do not use offensive language. Present ideas appropriately.
- Be cautious in using Internet language. For example, do not capitalize all letters since this suggests shouting.
- Avoid using vernacular and/or slang language. This could lead to misinterpretation.
- Keep an “open mind” and be willing to express even your minority opinion.
- Think and edit before you push the “Send” button.
- Seek and take in feedback from others; learning from other people is an important life skill.

Academic Integrity

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 information may be submitted anonymously, the more information is submitted the greater the opportunity for the university to investigate the concern.

Accessibility

Purdue University strives to make learning experiences accessible to all participants. If you anticipate or experience physical or academic barriers based on disability, you are encouraged to contact the Disability Resource Center at: drc@purdue.edu or by phone: 765-494-1247, as soon as possible.

If the Disability Resource Center (DRC) has determined reasonable accommodations that you would like to utilize in my class, you must release your Course Accommodation Letter to me. Instructions on sharing your Course Accommodation Letter can be found by visiting: <https://www.purdue.edu/drc/students/course-accommodation-letter.php>. Additionally, you are strongly encouraged to contact me as soon as possible to discuss implementation of your accommodations.

Responsible Use of Artificial Intelligence (AI) Tools in Completing Coursework



Figure 1: I asked Google Gemini to “make me an image of an AI disguised as a student”. I don’t think this AI is fooling anyone!

Advancements in AI provide all of us with unparalleled access to information and problem-solving capabilities. However, with these advantages come the responsibilities of ethical use and academic integrity. The assignments in this course are intended to directly ease your journey through the D. Eng. Program. I hope that you will choose to engage with them with an attitude that is open to learning and growth. If you do use AI, for example to polish your grammar, point that out in your submission. In essence, use AI in such a way that you are confident disclosing how you used it. We are all navigating this new world. If you’re not sure about whether using AI for a particular task is appropriate or not, please reach out to me.

Nondiscrimination Statement

Purdue University is committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. See Purdue’s full [Nondiscrimination Policy Statement](#).

Mental Health/Wellness Statement

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try [Therapy Assistance Online \(TAO\)](#), a new web and app-based mental health resource available courtesy of Purdue Counseling and Psychological Services (CAPS). TAO is available to students, faculty, and staff at any time.

If you need support and information about options and resources, please contact or see the [Office of the Dean of Students \(ODOS\)](#) at 765-494-1747.

If you find yourself struggling to find a healthy balance between academics, social life, stress, etc., sign up for free one-on-one virtual sessions with a [Purdue Wellness Coach at RecWell](#). Student coaches can help you navigate through barriers and challenges toward your goals throughout the session. Sign up is free and can be done on BoilerConnect.

If you're struggling and need mental health services: 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 mental health support, services are available. For help, such individuals should contact [Counseling and Psychological Services \(CAPS\)](#) at 765-494-6995 during and after hours, on weekends and holidays.

Basic Needs Security

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. There is no appointment needed, and Student Support Services is available to serve students 8 a.m.-5 p.m. Monday through Friday.

Emergency Preparation

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. Relevant changes to this course will be posted onto the course website or can be obtained by contacting the instructors or TAs via email or phone. You are expected to read your @purdue.edu email on a frequent basis.

Disclaimer

This syllabus is subject to change. You will be notified of any changes as far in advance as possible via an announcement on Brightspace. Monitor your Purdue email daily for updates.