MARYLAND APPLIED GRADUATE ENGINEERING

Advanced Topics in Engineering: Design of Experiments (ENPM 808J)
Sections 0101 and SY01

Term: Fall 2026
Professor: Dr. Tony D. Barber
Pronouns: he/him/his
Office Phone: 202-321-0834
Email: TDBarber@umd.edu
Office Hours: Fridays, 12:00–6:00 p.m. ET (please reserve a slot at least 24 hours in advance so I can prepare)

Teaching Assistant: Not applicable for this course

Credits: 3
Course Dates: August 31, 2026 – December 11, 2026
Course Times: Tuesdays, 7:00–9:45 p.m. ET
Course Format: Fully remote; live sessions via Zoom in ELMS-Canvas
Classroom: Online via Zoom (no on-campus meeting)
Final Exam Period: December 14–21, 2026

Canvas/ELMS: ENPM 808J course site in ELMS-Canvas

Course Description

The objective of this course is to learn how to plan, design, and conduct experiments efficiently and effectively, and how to analyze the resulting data to reach objective conclusions. Both design and statistical analysis are covered.

Opportunities to apply these principles arise in every phase of engineering work, including new product design and development, process development, and manufacturing process improvement. Applications are drawn from across engineering — chemical, mechanical, electrical, materials science, industrial, and others. JMP software from SAS is used extensively to implement the methods presented.

Every experiment an engineer or scientist runs is a designed experiment; some are poorly designed and some are well designed. A well-designed experiment gives you reliable, valid results faster, more easily, and with fewer resources — and it can shorten development lead time for new processes and products, improve manufacturing performance, and yield products with superior function and reliability.

Topics Covered

- Introduction and fundamentals of Design of Experiments (DOE)
- A systematic methodology for setting up experiments
- Approaches for simple through complex experimentation
- Robust parameter design and its application — designing for robustness and resiliency
- Regression analysis and response surface methods in complex engineering analysis
- Applying DOE in adjacent areas such as quality management and decision analysis

Prerequisites

- Permission of an ENGR advisor

- A foundational knowledge of core engineering concepts across disciplines — mechanical, electrical, chemical, or materials science
- A basic course in statistics covering descriptive statistics, probability distributions, and hypothesis testing
- Proficiency in basic algebra and an understanding of elementary calculus, particularly functions and derivatives
- Basic competency using computer software for data entry and analysis
- Familiarity with general-purpose software such as spreadsheets and introductory statistical tools

Learning Outcomes

After successfully completing this course, you will be able to:

- Plan and design an experiment that answers a stated engineering question efficiently
- Set up experiments using a systematic, repeatable methodology
- Select an appropriate design for problems ranging from simple comparisons to complex multi-factor studies
- Apply robust parameter design to build robustness and resiliency into a product or process
- Analyze experimental data using regression analysis and response surface methods in JMP
- Interpret results and draw objective, defensible conclusions from experimental data
- Apply Design of Experiments in adjacent areas such as quality management and decision analysis

Course Materials

Required Resources

Textbook: Design and Analysis of Experiments, by Douglas C. Montgomery. Tenth edition (2019). ISBN 978-1-119-49244-3. Required.

Textbook: An Introduction to the Design and Analysis of Experiments, by George C. Canavos and Ioannis A. Koutrouvelis. First edition (2008). ISBN 978-0-13-615863-9. Required.

Application/Software: JMP Pro by SAS, available at no cost through TERPware: JMP Pro for Windows or JMP Pro for Mac. Required.

Project materials: standard printer paper, paperclips, a ruler or tape measure, and a stopwatch or phone timer. Most students already own everything; budget under $10 if you do not.

Estimated cost of required course materials: Textbook prices vary; check the University Book Store or a retailer. JMP Pro is free through TERPware, and the project materials are everyday items.

Supplemental Resources (no purchase required)

- Readings: None
- Hardware and software: None

Course Structure

ENPM 808J meets fully online on Tuesdays, 7:00–9:45 p.m. ET. There is no on-campus meeting for this course. To join, log in to ELMS-Canvas at the scheduled class time and select “Zoom” or “Video Conference” from the course menu.

Sessions are synchronous and interactive: expect live discussion, worked examples, and breakout activities. Join with your camera on when you are able, and use the chat or raise-hand feature to ask questions. Please test your microphone, camera, and connection before the first class meeting.

Sessions are recorded and posted to ELMS-Canvas under "Panopto Recordings / Video Lectures" within 24 hours. Recordings supplement live attendance rather than replacing it; if you must miss a session, watch the recording promptly and check the discussion board for anything you need to follow up on.

Log in to ELMS-Canvas at least once every 24 hours to check announcements and your inbox.

Distance Education Support

Students attending or reviewing this course online are supported by Distance Education Technology Services (DETS) in the College of Engineering. Contact DETS directly for help with Zoom, Panopto recordings, and course technology:

- Technical support: dets-support@umd.edu
- General information: dets-info@umd.edu
- Canvas support: engr-canvas@umd.edu
- Phone: 301-405-4907 (from an on-campus phone, dial x5-4907)
- In person: 2125 J.M. Patterson Building, College Park

Communication Guidelines

Communicating with the Instructor

My goal is to be readily available to you throughout the semester. I can be reached by email at TDBarber@umd.edu. Please do not email me with questions that are answered in this syllabus or on ELMS-Canvas (for example, when an assignment is due or how much it is worth), but please do reach out about personal, academic, and intellectual questions or concerns.

All course communication is handled through Canvas Messaging in the University of Maryland Electronic Learning Management System (ELMS). Please use it rather than personal email so that your message is logged with the course.

When you email me, please put "**ENPM 808J (Section 0101): Your Topic**" in the subject line. That flags your message and lets me respond more quickly. I will do my best to respond within 24 hours.

Additionally, please review These tips for 'How to email a professor'. By following these guidelines, you will be ensured to receive a timely and courteous response.

Finally, if you need to discuss issues not appropriate for the classroom and/or an email, we can arrange to talk by phone, over Zoom, or in person. Send me an email asking for a meeting and we can set something up.

Announcements

I will send IMPORTANT messages, announcements, and updates through ELMS-Canvas. To ensure you receive this information in a timely fashion, make sure your email and announcement notifications (including changes in assignments and/or due dates) are enabled in ELMS-Canvas (How to change notification settings in CANVAS).

Log into our ELMs-Canvas course site at least once every 24-hour period to check your inbox and the Announcements page.

Names/Pronouns and Self-Identifications

The University of Maryland recognizes the importance of a diverse student body, and we are committed to fostering inclusive and equitable classroom environments. I invite you, if you wish, to tell us how you want to be referred to in this class, both in terms of your name and your pronouns (he/him, she/her, they/them, etc.). Keep in mind that the pronouns someone uses are not necessarily indicative of their gender identity. Visit trans.umd.edu to learn more.

Additionally, it is your choice whether to disclose how you identify in terms of your gender, race, class, sexuality, religion, and dis/ability, among all aspects of your identity (e.g., should it come up in classroom conversation about our experiences and perspectives) and should be self-identified, not presumed or imposed. I will do my best to address and refer to all students accordingly, and I ask you to do the same for all of your fellow Terps.

Communicating with your Peers

With a diversity of perspectives and experience, we may find ourselves in disagreement and/or debate with one another. As such, it is important that we agree to conduct ourselves in a professional manner and that we work together to foster and preserve a virtual classroom environment in which we can respectfully discuss and deliberate controversial questions. I encourage you to confidently exercise your right to free speech—bearing in mind, of course, that you will be expected to craft and defend arguments that support your position. Keep in mind, that free speech has its limit and this course is NOT the space for hate speech, harassment, and derogatory language. I will make every reasonable attempt to create an atmosphere in which each student feels comfortable voicing their argument without fear of being personally attacked, mocked, demeaned, or devalued.

Any behavior (including harassment, sexual harassment, and racially and/or culturally derogatory language) that threatens this atmosphere will not be tolerated. Please alert me immediately if you feel threatened, dismissed, or silenced at any point during our semester together and/or if your engagement in discussion has been in some way hindered by the learning environment.

Netiquette Policy

Netiquette is the social code of online classes. Students share a responsibility for the course's learning environment. Creating a cohesive online learning community requires learners to support and assist each other. To craft an open and interactive online learning environment, communication has to be conducted in a professional and courteous manner at all times, guided by common sense, collegiality and basic rules of etiquette.

Grading

Grade Breakdown

Learning Assessment	Number	Points Each	Category Total	Category Weight
Semester Project — the helicopter experiment	6	50–175	600	40%
Assessment Quizzes	4	40–60	180	30%
Final Exam	1	100	100	20%

Learning Assessment	Number	Points Each	Category Total	Category Weight
Discussion Questions	6	10–40	100	10%
Total	**17**	**—**	**980**	**100%**

Course Assignments

How due dates work in this course

Quizzes and discussion questions are assigned during a class meeting and are due one week later, at 11:59 p.m. ET on the same weekday. Major deliverables — project assignments — are due on Fridays at 11:59 p.m. ET. Exams are released on a class day and are due one week later. Where a due date would otherwise fall during Fall Break or Thanksgiving Recess, it moves to the next class meeting; every such case is marked in the course schedule.

Semester Project: The Helicopter Experiment

The whole class runs the same experimental system for the whole semester, working in pairs. You will not be handed a dataset — you will build the apparatus, take the measurements, and live with the variation you create. Each phase applies a more capable technique to the same system, and every phase's output is the next phase's input.

The system. You will build paper helicopters: a single sheet of paper folded into a rotor and a body, dropped from a fixed height. The response is flight time in seconds, from release to floor contact. It is the standard teaching apparatus for designed experiments because it is cheap, fast, and genuinely noisy — rotor length, body length, body width, paper stock, paperclip mass and fold angle all matter, and so do drop height, air movement, and whoever is holding the timer. Because everyone runs the same system, we can compare designs across the class and discuss why two pairs starting from identical apparatus reached different conclusions.

Working in pairs. Both partners build and both partners run. This is not a split between the one who runs and the one who analyses. Each of you is a **block**: your builds, your timer, your room. Operator-to-operator variation is real in this experiment, and you will have to design around it rather than pretend it away. Randomized block designs stop being a textbook chapter the first time you see your partner's mean differ from your own.

Run budget. Expect roughly 100 to 120 runs per pair across the semester. A single drop takes under a minute including setup, so the total is a few hours of running spread over fourteen weeks — cheap enough that a botched randomization can simply be redone rather than salvaged.

The six phases. All deliverables are due on Fridays at 11:59 p.m. ET.

- **Phase 1 — Project Charter and System Definition** — 50 points — due Friday, September 18. Define your response precisely (what counts as release, what counts as landing), list five to seven candidate factors with high and low levels, identify the nuisance factors you cannot control, and state your objective in terms someone could falsify.
- **Phase 2 — Measurement System Analysis and Baseline** — 75 points — due Friday, October 2. Run a gauge R&R on your own timing method: how much of the variation you see is the helicopter, and how much is the two of you? Establish a baseline at your best-guess settings, estimate pure error, and calculate the replication you need to detect the effect size you care about. If your measurement system cannot resolve the difference you are chasing, you will find that out here rather than in November.
- **Phase 3 — Screening Experiment** — 100 points — due Friday, October 23. A fractional factorial across your candidate factors, blocked by partner, with centre points to test for curvature. Identify the vital few. Report the aliasing structure and say plainly what you are willing to assume.

- **Phase 4 — Full Factorial and Interaction Analysis** — 100 points — due Friday, November 6. A replicated full factorial on the surviving factors: interaction plots, residual diagnostics, model reduction, and an honest account of any assumption your residuals violate.
- **Phase 5 — Response Surface and Robustness** — 100 points — due Friday, November 20. Augment your design to a central composite or Box-Behnken, fit a second-order model, and locate the optimum. Then test it against a noise factor you do not control — drop height, air movement, paper humidity — and report whether your optimum survives.
- **Phase 6 — Confirmation Runs and Final Report** — 175 points — due Friday, December 11. Run confirmations at your predicted optimum and compare the observed mean against your prediction interval. Report the improvement over your Phase 2 baseline. The report carries the whole argument: what you did, what you found, what you would do differently, and where your conclusions are weakest.

Each phase is graded on the soundness of the design and the honesty of the analysis, not on whether your helicopter got faster. A well-designed experiment that produced a null result and says so earns more than a fishing expedition that found something.

Discussion Questions

Six discussion questions posted in ELMS-Canvas, worth 100 points in total and 20% of your final grade. These are where you work through the reasoning behind a design choice in your own words and respond to how your classmates approached it. Each is assigned in class and due the following Tuesday at 11:59 p.m. ET.

- **Discussion Questions 1** — 40 points — assigned Tuesday, September 1; due Tuesday, September 8
- **Discussion Question 2** — 10 points — assigned Tuesday, September 15; due Tuesday, September 22
- **Discussion Question 3** — 20 points — assigned Tuesday, October 6; due Tuesday, October 20 (extended over Fall Break)
- **Discussion Question 4** — 10 points — assigned Tuesday, October 27; due Tuesday, November 3
- **Discussion Questions 5** — 10 points — assigned Tuesday, November 10; due Tuesday, November 17
- **Discussion Questions 6** — 10 points — assigned Tuesday, December 1; due Tuesday, December 8

Assessment Quizzes

Four quizzes worth 180 points in total and 40% of your final grade. They are recursive: each one covers a proportion of the material from previous weeks as well as the current topic, so the course builds cumulatively rather than in isolated units. Each is assigned in class and due the following Tuesday at 11:59 p.m. ET.

- **DOE Quiz 1** — 40 points — assigned Tuesday, September 29; due Tuesday, October 6
- **DOE Quiz 2** — 40 points — assigned Tuesday, October 20; due Tuesday, October 27
- **DOE Quiz 3** — 40 points — assigned Tuesday, November 3; due Tuesday, November 10
- **DOE Quiz 4** — 60 points — assigned Tuesday, November 24; due Tuesday, December 1

Final Exam

One final exam worth 100 points and 40% of your final grade. It is released on the last class meeting, Tuesday, December 8, and is due Tuesday, December 15 at 11:59 p.m. ET — within the University final examination period.

Grading of Assignments

All assignments are graded against a predetermined set of criteria — a rubric — that will be shared with you before the assignment is due.

To progress satisfactorily in this class you need timely feedback, so I aim to grade all assignments within one week of their due date. If an assignment is taking longer than expected to grade, I will let you know when you can expect to see your grade.

Grade Computation

All assessment scores will be posted on ELMS/Canvas page. If you would like to review any of your grades (including the exams), or have questions about how something was scored, please email me to schedule a time for us to meet and discuss.

It is expected that you will submit work by the deadline listed in the syllabus and/or on ELMS-Canvas. Late work will be penalized according to the late work policy described in the **Course Policies and Procedures** section below.

Grade Disputes: I am happy to discuss any of your grades with you, and if I have made a mistake, I will immediately correct it. Any formal grade disputes must be submitted in writing and within one week of receiving the grade.

Final letter grades are assigned based on the percentage of total assessment points earned. To be fair to everyone I have to establish clear standards and apply them consistently, so please understand that being close to a cutoff is not the same as making the cut (89.99 ≠ 90.00). It would be unethical to make exceptions for some and not others.

Final Grade Cutoffs

Letter Grade	Cutoff
A+	97.00%
A	93.00%
A-	90.00%
B+	87.00%
B	83.00%
B-	80.00%
C+	77.00%
C	73.00%
C-	70.00%
D+	67.00%
D	63.00%
D-	60.00%
F	Below 60.0%

Course Schedule

Week	Class Date	Topics	HW and Due Dates
1	Tuesday, September 1, 2026	Course Overview, Introduction and Fundamentals of Design of Experiments (DOE) Reading: Montgomery — Chapter 1: Introduction Canavas & Koutrouvelis — Chapter 1: An Introduction to the Design of Experiments	Assigned: Semester Project introduced; pairs formed Discussion Questions 1 (40 pts) — due Tuesday, September 8

Week	Class Date	Topics	HW and Due Dates
2	Tuesday, September 8, 2026	Understanding Key Interactions in Processes; Systematic Methodology for DOE Reading: Montgomery — Chapter 1: Introduction Canavas & Koutrouvelis — Chapter 1: An Introduction to the Design of Experiments	Due: Discussion Questions 1 (40 pts)
3	Tuesday, September 15, 2026	Simple Comparative Experiments; Experiments with a Single Factor: The Analysis of Variance Reading: Montgomery — Chapter 2: Simple Comparative Experiments; Chapter 3: Experiments with a Single Factor: The Analysis of Variance Canavas & Koutrouvelis — Chapter 2: Investigating a Single Factor: Completely Randomized Experiments	Assigned: Discussion Question 2 (10 pts) — due Tuesday, September 22 Due: Project Phase 1 — Charter and System Definition (50 pts), Friday, September 18
4	Tuesday, September 22, 2026	Robust Parameter Design; Process Robustness Studies Reading: Montgomery — Chapter 12: Robust Parameter Design and Process Robustness Studies Taguchi, Robust Engineering (optional) — chapters on robust parameter design	Due: Discussion Question 2 (10 pts)
5	Tuesday, September 29, 2026	Randomized Blocks, Latin Squares, and Related Designs Reading: Montgomery — Chapter 4: Randomized Blocks, Latin Squares, and Related Designs Canavas & Koutrouvelis — Chapter 3: Investigating a Single Factor: Randomized Complete and Incomplete Block and Latin Square Designs; Chapter 4: Factorial Experiments: Completely Randomized Designs	Assigned: DOE Quiz 1 (40 pts) — due Tuesday, October 6 Due: Project Phase 2 — Measurement System Analysis and Baseline (75 pts), Friday, October 2
6	Tuesday, October 6, 2026	Introduction to Factorial Designs; 2^K Factorial Experiments Reading: Montgomery — Chapter 5: Introduction to Factorial Designs; Chapter 6: The 2^K Factorial Design Canavas & Koutrouvelis — Chapter 7: 2^f Factorial Experiments	Assigned: Discussion Question 3 (20 pts) — due Tuesday, October 20, extended over Fall Break Due: DOE Quiz 1 (40 pts)
7	Tuesday, October 13, 2026	NO CLASS — Fall Break	—

Week	Class Date	Topics	HW and Due Dates
8	Tuesday, October 20, 2026	3^f Factorial Designs; Fractional Factorial Designs Reading: Montgomery — Chapter 7: Blocking and Confounding in the 2^K Factorial Design (review as needed) Canavas & Koutrouvelis — Chapter 7: 3^f Factorial Experiments; Chapter 9: Fractional Factorial Experiments	Assigned: DOE Quiz 2 (40 pts) — due Tuesday, October 27 Due: Discussion Question 3 (20 pts) — extended over Fall Break Project Phase 3 — Screening Experiment (100 pts), Friday, October 23
9	Tuesday, October 27, 2026	Blocking and Confounding in Factorial Designs Reading: Montgomery — Chapter 7: Blocking and Confounding in the 2^K Factorial Design Canavas & Koutrouvelis — Chapter 8: Confounding in 2^f and 3^f Factorial Experiments	Assigned: Discussion Question 4 (10 pts) — due Tuesday, November 3 Due: DOE Quiz 2 (40 pts)
10	Tuesday, November 3, 2026	Nested and Split-Plot Designs; Repeated Measures Designs Reading: Montgomery — Chapter 14: Nested and Split-Plot Designs Canavas & Koutrouvelis — Chapter 6: Nested Factorial Experiments and Repeated Measures Designs	Assigned: DOE Quiz 3 (40 pts) — due Tuesday, November 10 Due: Discussion Question 4 (10 pts) Project Phase 4 — Full Factorial and Interaction Analysis (100 pts), Friday, November 6
11	Tuesday, November 10, 2026	Fitting Regression Models Reading: Montgomery — Chapter 10: Fitting Regression Models Canavas & Koutrouvelis — Chapter 10: Regression Analysis: The General Linear Model	Assigned: Discussion Questions 5 (10 pts) — due Tuesday, November 17 Due: DOE Quiz 3 (40 pts)
12	Tuesday, November 17, 2026	Response Surface Methods and Designs Reading: Montgomery — Chapter 11: Response Surface Methods and Designs Canavas & Koutrouvelis — Chapter 11: Response Surface Designs for First- and Second-Order Models	Assigned: DOE Quiz 4 (60 pts) — due Tuesday, December 1, the first class meeting after Thanksgiving week Due: Discussion Questions 5 (10 pts) Project Phase 5 — Response Surface and Robustness (100 pts), Friday, November 20
13	Tuesday, November 24, 2026	NO CLASS — Thanksgiving week; class suspended	—

Week	Class Date	Topics	HW and Due Dates
14	Tuesday, December 1, 2026	Other Design and Analysis Topics; DOE Tips and Case Studies Reading: Montgomery — Chapter 10: Additional Design and Analysis Topics Canavas & Koutrouvelis — Chapter 10: Case Studies and Practical Considerations in Experimental Design	Assigned: Discussion Questions 6 (10 pts) — due Tuesday, December 8 Due: DOE Quiz 4 (60 pts)
15	Tuesday, December 8, 2026	DOE within Quality Management and Six Sigma; Final Exam Review Reading: No reading — industry insight session	Assigned: Final Exam released (100 pts) — due Tuesday, December 15, 11:59 p.m. ET Due: Discussion Questions 6 (10 pts) Project Phase 6 — Confirmation Runs and Final Report (175 pts), Friday, December 11
16	Reading Day: Saturday, December 12, 2026; Final Examination Period: December 14–21, 2026	Final Exam. No regular class meeting.	Due: Final Exam (100 pts) — Tuesday, December 15, 11:59 p.m. ET

Note: This is a tentative schedule, and subject to change as necessary – monitor ELMS-Canvas for current deadlines. In the unlikely event of a prolonged university closing, or an extended absence from the university, adjustments to the course schedule, deadlines, and assignments will be made based on the duration of the closing and the specific dates missed.

Course Policies and Procedures

The University of Maryland's conduct policy indicates that course syllabi should refer to a webpage of course-related policies and procedures. For a complete list of graduate course related policies, visit the Graduate School website. Below are course-specific policies and procedures which explain how these Graduate School policies will be implemented in this class.

Satisfactory Performance

The Graduate School expects students to take full responsibility for their academic work and academic progress. The student, to progress satisfactorily, must meet all the academic requirements of this course. Additionally, each student is expected to complete all readings and any preparatory work before each class session, come to class prepared to make substantive contributions to the learning experience, and to proactively communicate with the instructor when challenges or issues arise.

Questions about Assignments

Please ask any questions you have about an assignment by noon the day before it is due. Questions asked after that may not be answered in time for you to act on the answer.

Late Work Policy

Assignments should be completed by the due date and time listed with the assignment, on the syllabus, and/or in the course calendar. If you are unable to complete an assignment by the stated due date, it is your responsibility to contact your instructor to discuss an extension, at least 24 hours BEFORE the assignment is due. Extensions are not guaranteed, but may be granted at the instructor's discretion.

Assignments submitted late will receive a 10% deduction in total grade per each calendar day late up to a maximum of three days late (i.e., there is a maximum of a 30% grade reduction for assignments submitted late). Work submitted more than three days late will not receive feedback and will automatically earn a grade of zero. If your failure to turn your work in on time was due to a University excused absence, please contact your instructor and make-up work can be arranged.

Responsible Use of Generative AI

Generative AI tools (for example, ChatGPT, Claude, or GitHub Copilot) are increasingly common in engineering practice and in engineering education. In this course you are expected to use them ethically and in ways that support your own learning, uphold academic integrity, and meet the course objectives.

Permitted uses of AI tools in this course

You may use generative AI tools to:

- Brainstorm initial ideas or outline an assignment
- Understand a difficult engineering concept — asking for an explanation or a worked example
- Get sentence-level writing help, such as grammar or clarity improvements
- Get debugging support on coding work, provided you still understand and can explain your code

Prohibited uses of AI tools in this course

You may not use generative AI tools to:

- Complete graded assignments, problem sets, or projects unless explicitly permitted
- Generate solutions to coding or engineering problems without understanding and verifying the output
- Write full sections of reports, papers, or lab assignments
- Submit AI-generated work as your own without proper citation or my approval

It is your responsibility to make sure any use of AI meets the expectations above. Misuse of AI tools may constitute academic dishonesty and will be handled accordingly (see Academic Integrity, below). Please familiarise yourself with the University-approved AI tools and the University's guidelines on responsible AI use. If you are unsure whether a particular use of AI is appropriate, ask before you proceed rather than after.

Academic Integrity

For this course, some of your assignments will be collected via Turnitin on ELMS/Canvas. I have chosen to use this tool because it can help you improve your scholarly writing and help me verify the integrity of student work. For information about Turnitin, how it works, and the feedback reports you may have access to, visit Turnitin Originality Checker for Students

The University's Code of Academic Integrity is designed to ensure that the principles of academic honesty and integrity are upheld. In accordance with this code, the University of Maryland does not tolerate academic dishonesty. Please ensure that you fully understand this code and its implications because all acts of academic dishonesty will be dealt with in accordance with the provisions of this code. All students are expected to adhere to this Code. It is your responsibility to read it and know what it says, so you can start your professional life on the right path. **As future professionals, your commitment to high ethical standards and honesty begins with your time at the University of Maryland.**

It is important to note that course assistance websites, such as CourseHero, or AI generated content are not permitted sources, unless the instructor explicitly gives permission. Material taken or copied from these sites can be deemed unauthorized material and a violation of academic integrity. These sites offer information that might be inaccurate or biased and most importantly, relying on restricted sources will hamper your learning process, particularly the critical thinking steps necessary for college-level assignments.

Additionally, students may naturally choose to use online forums for course-wide discussions (e.g., Group lists or chats) to discuss concepts in the course. However**, collaboration on graded assignments is strictly prohibited unless otherwise stated**. Examples of prohibited collaboration include: asking classmates for answers on quizzes or exams, asking for access codes to clicker polls, etc. Please visit the **Office of Graduate Studies' full list of campus-wide policies** and reach out if you have questions.

Finally, on each exam or assignment you must write out and sign the following pledge: ***"I pledge on my honor that I have not given or received any unauthorized assistance on this exam/assignment."***

If you ever feel pressured to comply with someone else's academic integrity violation, please reach out to me straight away. Also, ***if you are ever unclear*** about acceptable levels of collaboration, ***please ask***!

To help you avoid unintentional violations, ***the following table*** lists levels of collaboration that are acceptable for each graded exercise. Each assignment will contain more specific information regarding acceptable levels of collaboration.

Assignment Type	 **OPEN NOTES**	 **READ BOOK**	 **LEARN ONLINE**	 **GATHER CONTENT WITH AI**	 **ASK FRIENDS**	 **WORK IN GROUPS**
Semester Project (all six phases)	Yes	Yes	Yes	Yes	Yes	Yes
Discussion Questions	Yes	Yes	Yes	No	No	No
Assessment Quizzes	Yes	Yes	Yes	No	No	No
Final Exam	Yes	Yes	No	No	No	No

Course Evaluation

Please submit a course evaluation through Student Feedback on Course Experiences in order to help faculty and administrators improve teaching and learning at Maryland. All information submitted to Course Experiences is confidential. Campus will notify you when Student Feedback on Course Experiences is open for you to complete your evaluations at the end of the semester. Please go directly to the **Student Feedback on Course Experiences** to complete your evaluations. By completing all of your evaluations each semester, you will have the privilege of accessing through Testudo the evaluation reports for the thousands of courses for which 70% or more students submitted their evaluations.

Religious Observance

It is the student's responsibility to inform the instructor of any intended absences for religious observances in advance. Notice should be provided as soon as possible but no later than the end of the schedule adjustment period.

Copyright Notice

Tips for Succeeding in this Course

1. **Participate.** I invite you to engage deeply, ask questions, and talk about the course content with your classmates. You can learn a great deal from discussing ideas and perspectives with your peers and professor. Participation can also help you articulate your thoughts and develop critical thinking skills.
2. **Manage your time.** Students are often very busy, and I understand that you have obligations outside of this class. However, students do best when they plan adequate time that is devoted to course work. Block your schedule and set aside plenty of time to complete assignments including extra time to handle any technology related problems.
3. **Login regularly.** I recommend that you log in to ELMS-Canvas several times a week to view announcements, discussion posts and replies to your posts. You may need to log in multiple times a day when group submissions are due.
4. **Do not fall behind.** This class moves at a quick pace and each week builds on the previous content. If you feel you are starting to fall behind, check in with the instructor as soon as possible so we can troubleshoot together. It will be hard to keep up with the course content if you fall behind in the pre-work or post-work.
5. **Use ELMS-Canvas notification settings.** Pro tip! Canvas ELMS-Canvas can ensure you receive timely notifications in your email or via text. Be sure to enable announcements to be sent instantly or daily.
6. **Ask for help if needed.** If you need help with ELMS-Canvas or other technology, IT Support. If you are struggling with a course concept, reach out to me and your classmates for support.

Student Resources and Services

Taking personal responsibility for your learning means acknowledging when your performance does not match your goals and doing something about it. I hope you will come talk to me so that I can help you find the right approach to success in this course, and I encourage you to visit the Counseling Center's Academic Resources to learn more about the wide range of resources available to you. Below are some additional resources and services commonly

used by graduate students. For a more comprehensive list, please visit the Graduate School's Campus Resources Page.

Accessibility and Disability Services

The University of Maryland is committed to creating and maintaining a welcoming and inclusive educational, working, and living environment for people of all abilities. The University of Maryland is also committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the University, or be subjected to discrimination. The Accessibility & Disability Service (ADS) provides reasonable accommodations to qualified individuals to provide equal access to services, programs and activities. ADS cannot assist retroactively, so it is generally best to request accommodations several weeks before the semester begins or as soon as a disability becomes known. Any student who needs accommodations should contact me as soon as possible so that I have sufficient time to make arrangements.

For assistance in obtaining an accommodation, contact Accessibility and Disability Service at 301-314-7682, or email them at adsfrontdesk@umd.edu. Information about sharing your accommodations with instructors, note taking assistance and more is available from the Counseling Center.

Writing Center

Everyone can use some help sharpening their communication skills (and improving their grade) by visiting The Graduate School's Writing Center and schedule an appointment with them. Additionally, international graduate students may want to take advantage of the Graduate School's free English Editing for International Graduate Students (EEIGS) program.

Health Services

The University offers a variety of physical and mental health services to students. If you are feeling ill or need non-emergency medical attention, please visit the University Health Center.

If you feel it would be helpful to have someone to talk to, visit UMD's Counseling Center or one of the many other mental health resources on campus.

Notice of Mandatory Reporting

Notice of mandatory reporting of sexual assault, sexual harassment, interpersonal violence, and stalking: As a faculty member, I am designated as a "Responsible University Employee," and I must report all disclosures of sexual assault, sexual harassment, interpersonal violence, and stalking to UMD's Title IX Coordinator per University Policy on Sexual Harassment and Other Sexual Misconduct.

If you wish to speak with someone confidentially, please contact one of UMD's confidential resources, such as CARE to Stop Violence (located on the Ground Floor of the Health Center) at 301-741-3442 or the Counseling Center (located at the Shoemaker Building) at 301-314-7651.

You may also seek assistance or supportive measures from UMD's Title IX Coordinator, Angela Nastase, by calling 301-405-1142, or emailing titleIXcoordinator@umd.edu.

To view further information on the above, please visit the Office of Civil Rights and Sexual Misconduct.

Basic Needs Security

If you have difficulty affording groceries or accessing sufficient food to eat every day, or lack a safe and stable place to live, please visit UMD's Division of Student Affairs website for information about resources the campus offers you and let me know if I can help in any way.

Veteran Resources

UMD provides some additional supports to our student veterans. You can access those resources at the office of Veteran Student life and the Counseling Center. Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, disabilities) are welcome and encouraged to communicate these, in advance if possible, to the instructor.