

Sample Syllabus

ME 493 – Honors Thesis Seminar Spring 2024

Instructors:

Dr. Margaret Byron

Email: mbyron@psu.edu

Office: 301A Reber

Dr. Daniel Cortes

Email: dhc13@psu.edu

Office: 329 Leonhard Building

Dr. Jean-Michel Mongeau

Email: jmmongeau@psu.edu

Office: 204 Reber Building

Seminar times and location: Wednesdays, 2:30 – 3:20 PM, 110 Sackett Building

Office hours: by appointment

COURSE DESCRIPTION

This course should be taken by Schreyer Honors students in Mechanical Engineering, preferably in their junior year. The goal of this course is to provide students with an overview of the research and honors thesis process, as well as general engineering practices and career advice. In this semester, the major deliverable will be the literature review portion of each student's thesis.

Class attendance is required every week. There will be in-class activities in almost every session where we will practice many of the skills necessary to write your thesis. However, we recognize that it may be difficult for students to attend courses for legitimate reasons – illness, family reasons, etc. Please communicate closely with the faculty if you are having issues and we'll work with you to ensure that you can keep up with the course.

Pre-requisite: *A thesis supervisor and topic must be identified prior to the start of the course.*

Text: “So, you have to write a literature review: a guided workbook for engineers” by Catherine Grace Patrick Berdanier and Joshua Bela Lenart.

Book is available for free on the PSU libraries: <https://catalog.libraries.psu.edu/catalog/37410343>

ASSIGNMENTS AND GRADING

Pre-class activities: Pre-class activities will be assigned on Canvas in preparation for each seminar period. Students are expected to complete each pre-class activity in preparation for the material that will be covered in class on Wednesdays.

In-class activities: Each class period will have a deliverable due at the end of class. These will be group assignments and will be graded on completeness. These activities are designed to help develop the skills necessary to write an honors thesis.

Thesis-related assignments: Students will be assigned a number of deliverables that relate directly to the thesis. Many of these assignments will require meetings with their thesis supervisors in order to complete

the deliverable. The supervisor will be responsible for helping the students with each of the assignments, and a signature page, signed by the thesis supervisor, will be required as part of each thesis-related assignment.

Grading: Grades will be assigned by the instructors in the course, not the thesis supervisors. As such, assignments will be graded on completeness and quality, not technical accuracy. The rubrics for thesis-related assignments will be published ahead of their due-dates.

Pre-class activities	15%
In-class activities	15%
Bibliography	10%
1-page thesis motivation	10%
Literature review	50%
– 15% - outline	
– 5% - draft	
– 25% - final	
– 5% - presentation	

GRADING SCALE	
A	93
A-	90
B+	87
B	83
B-	80
C+	77
C	70
D	60

Schedule

	Date	Topic	Reading	Thesis-related assignment due
1	1/10	Module 1: Introduction	Chap. 1	
2	1/17	Module 1: Research pitches/Match Making		
3	1/24	Module 2: Contents of a thesis – structure and guidelines		
4	1/31	Module 3: How to write a literature review – purpose and audience	Chap. 2	
5	2/7	Module 3: How to write a literature review – what is “the literature” and how do I find it?	Chap. 3, 4	1-page thesis motivation
6	2/14	Module 3: How to write a literature review – content and structure	Chap. 5, 6	bibliography
7	2/21	Module 4: Editing your writing – mechanics	Chap. 7, 8	proposal draft
8	2/28	Module 5: Graduate School – what to start thinking about early		
9	3/13	Module 5: Research ethics		
10	3/20	Module 5: Industry Panel		literature review outline slides
11	3/27	Module 4: Editing your writing – peer review	Chap. 9	literature review rough draft
12	4/3	Module 5: Research in teams; research group dynamics		
13	4/10	Module 4: Editing your writing – peer review	Chap. 10, 11	
14	4/17	Student presentations – lit review		final proposal
15	4/24	Student presentations – lit review		Literature Review Presentation

LIBRARY RESOURCES

Many of Penn State's library resources can be used from a distance. Through the University Libraries website, you can

- access magazine, journal, and newspaper articles online using library databases;
- borrow materials and have them delivered to your doorstep...or even your desktop;
- get research help via e-mail, chat, or phone using the Ask a Librarian services (<https://libraries.psu.edu/ask>).

You must have an active Penn State Access Account to take full advantage of the University Libraries' resources and services. Once you have a Penn State account, you will automatically be registered with the library within 24–48 hours. If you would like to check that your registration has been completed, visit the Libraries home page (<https://libraries.psu.edu/>). Click on **Library Accounts**, and then click on **My Library Account**.

ACADEMIC INTEGRITY

Academic integrity—scholarship free of fraud and deception—is an important educational objective of Penn State. Academic dishonesty can lead to a failing grade or referral to the Office of Student Conduct. Academic dishonesty includes but is not limited to

- cheating,
- plagiarism,
- fabrication of information or citations,
- use of AI or other assistive technology when not explicitly authorized,
- facilitating acts of academic dishonesty by others,
- unauthorized prior possession of examinations,
- submitting the work of another person or work previously used without informing the instructor and securing written approval, and
- tampering with the academic work of other students.

The University defines academic integrity as the pursuit of scholarly activity in an open, honest and responsible manner. All students should act with personal integrity, respect other students' dignity, rights and property, and help create and maintain an environment in which all can succeed through the fruits of their efforts (refer to Senate Policy 49-20). Dishonesty of any kind will not be tolerated in this course. Dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Students who are found to be dishonest will receive academic sanctions and will be reported to the University's Office of Student Conduct for possible further disciplinary sanctions (refer to Senate Policy G-9).

ACCOMMODATING DISABILITIES

Penn State welcomes students with disabilities into the University's educational programs. Every Penn State campus has an office for students with disabilities. The Office for Disability Services (ODS) Web site provides contact information for every Penn State campus: <http://equity.psu.edu/ods/dcl>. For further information, please visit the Office for Disability Services Website: <http://equity.psu.edu/ods>. In order to receive consideration for reasonable accommodations, you must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation (<http://equity.psu.edu/ods/guidelines>). If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with an accommodation letter. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. You must follow this process for every semester that you request accommodations.

CAPS

The Center for Counseling and Psychological Services (CAPS) wants to invite you to seek out CAPS services if you think they would be helpful. Students who experience personal issues that interfere with their academic performance, social development, or satisfaction at Penn State are encouraged to seek confidential assistance from Counseling and Psychological Services (CAPS) Center (<http://studentaffairs.psu.edu/counseling/>). They can be reached at (814) 863-0395.

Penn State Crisis Line (24 hours/7 days/week): 877-229-6400
Crisis Text Line (24 hours/7 days/week): Text LIONS to 741741

Location: 501 Student Health Center
Phone: 814-863-0395
Office Hours: Mon-Fri 8am-5pm EST
<http://studentaffairs.psu.edu/counseling>
Like us on Facebook: [facebook.com/PennStateCAPS](https://www.facebook.com/PennStateCAPS)
Follow us on [Twitter@PennStateCAPS](https://twitter.com/PennStateCAPS)

EDUCATIONAL EQUITY

Penn State takes great pride in fostering a diverse and inclusive environment for students, faculty, and staff. Acts of intolerance, discrimination, or harassment due to age, ancestry, color, disability, gender, gender identity, national origin, race, religious belief, sexual orientation, or veteran status are not tolerated and can be reported through Educational Equity via the Report Bias webpage (<http://equity.psu.edu/reportbias/>)

COPYRIGHT NOTICE

All course materials students receive or to which students have online access are protected by copyright laws. Students may use course materials and make copies for their own use as needed, but unauthorized distribution and/or uploading of materials without the instructor's express permission is strictly prohibited. University Policy AD 40, the University Policy Recording of Classroom Activities and Note Taking Services addresses this issue. Students who engage in the unauthorized distribution of copyrighted materials may be held in violation of the University's Code of Conduct, and/or liable under Federal and State laws.

SUBJECT TO CHANGE STATEMENT

Please note that this Course Syllabus is subject to change. Students are responsible for abiding by such changes.