EGR 104: Critical Inquiry in Engineering

Course and Faculty Information

Course Description: EGR/104 is a fundamental critical thinking and technical writing course. Systematic evaluation of information as it applies to well-informed decision making is the cornerstone of this course. Close reading and substantive writing in a technical setting is also required.

Credits: 3

Prerequisites: ENG 101, 105, or 107

Instructor: Terri Thorson

Contact Info:
Primary email: By Canvas message
Secondary Email: Terri.Thorson@asu.edu
Home Email: territhorson@@cox.net

Virtual Office Hours: Mondays from 1:00 p.m. to 2:00 pm. Please email instructor to set up an appointment.

Course Overview

This course is to prepare you to critically think and communicate in a professional engineering work environment you want to join after you graduate.

The kind of writing we use in this class is different from academic writing in that it usually has a specific, practical purpose and must communicate clearly and directly to a variety of intended readers. The course is organized in 15 modules corresponding to the 15 weeks in the semester. This course is offered by the College of Integrative Sciences & Arts (CISA). For more information about the school, visit our website:

https://cisa.asu.edu.

If you have questions or concerns, please send your inquiry to:

https://cisa.asu.edu

Course Learning Outcomes

At the completion of this course, students will be able to:

Critical Thinking, Reading, and Writing

1. Use information, writing, and reading for inquiry, learning, thinking, and communicating.
2. Understand the relationships among language, knowledge, and power including social, cultural, historical and economic issues related to information, writing, and technology
3. Critically evaluate information by identifying and evaluating claims, reasons that support the claim, and evidence.
4. Make a claim and support said claim by appropriate reason(s) and evidence (including data and basic statistical analysis).
5. Employ English, mathematics, graphics, and data to present and evaluate evidence.
6. Apply critical thinking in different engineering communication contexts, including progress reports, project reports, proposals, and investigation reports.
7. Setup an open-ended engineering/technical problem and select an approach to find a solution.
8. Use critical thinking strategies to evaluate ethical situations encountered in engineering practice.

Rhetorical Knowledge

1. Identify, articulate, and focus on a defined purpose.
2. Respond to the need of the appropriate audience.
3. Respond appropriately to different rhetorical situations.
4. Use conventions of format and structure appropriate to the rhetorical situation.
5. Adopt appropriate voice, tone, and level of formality.

Processes

1. Be aware that it usually takes multiple drafts to create and complete a successful text.
2. Learn to critique their own and others' works.

Knowledge of Conventions

1. Learn common formats for different genres.
2. Learn library skills for accessing and retrieving information.
3. Develop knowledge of genre conventions ranging from structure and paragraphing to tone and mechanics.
4. Control such surface features as syntax, grammar, punctuation, and spelling.

Textbooks

Writing Reports to Get Results Third Edition by Ron S. Blicq & Lisa A. Moretto. Published by WILEY-INTERSCIENCE. **ISBN# 978-0471-14342-0**

Course Access

Your ASU courses can be accessed by both my.asu.edu and myasucourses.asu.edu; bookmark both in the event that one site is down.

Computer Requirements

This is a fully online course; therefore, it requires a computer with internet access and the following technologies:

- Web browsers (Chrome, Mozilla Firefox, or Safari)
- Adobe Acrobat Reader (free)
- Adobe Flash Player (free)
- Webcam, microphone, headset/earbuds, and speaker
- Microsoft Office (Microsoft 365 is free for all currently-enrolled ASU students)
- Reliable broadband internet connection (DSL or cable) to stream videos.

Note: A smartphone, iPad, Chromebook, etc. will not be sufficient for completing your work in ASU Online courses. While you will be able to access course content with mobile devices, you must use a computer for all assignments, quizzes, and virtual labs.

Student Success

To be successful:

- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track
- access ASU Online Student Resources

Points Breakdown

Your final class grade is based on 500 points possible, broken down as follows:

Section	Points
Video Introduction	20 points
Seven (7) graded forum discussions (post and respond to others)	140 points (20 points each possible)
Case Study Investigation Memo	20 points
Repair Report	40 points
Rough Draft	15 points

Two (2) Peer Reviews	30 points
Proposal Revision Plan	15 points
Semi-formal Proposal	50 points
Progress Report	40 points
Semi-Formal Investigation Report	50 points
Instructions Document	40 points
Course Reflection Summary Memo	40 points
Total	500 Points

Grading

Your grade will be determined based on the following grading schema:

Grade	Percentage
A+	100% - 97%
A	<97-94%
A-	<94-90%
B+	<90-87%
B	<87-84%
B-	<84-80%
C+	<80-77%
C	<77-70%
D	<70-60%
E	<60%

We will use + /- for the final grades with this class. This course does NOT round percentages. You should be able to track your progress on the My Grades link of Canvas.

Extra Credit:

The curriculum is carefully designed to fit the number of course weeks. In order to uphold academic rigor and integrity, student/learner grades must be based on the degree to which the course requirements listed in the syllabus are fulfilled. **Extra credit assignments, make- ups or redo's are not accepted.**

Course Structure and Participation:

Courses work best with consistent mechanics such as due dates and submission methods. There is a Course Schedule link in Canvas with a calendar to provide you with the due dates for all assignments. Here are the items in the general approach:

- Readings: Each week consists of reading usually one to two chapters in the text (and ancillary readings provided for you).
- Discussions & Activities: Certain weeks in class we will discuss topics and work with some ancillary material. We will also use a variety of activities focusing on the course competencies. You must post to the discussion board to receive credit for any activity. Please see the Discussion Post Grading Criteria link for details located inside the modules on Canvas.
- Document Assignments: Certain weeks you will submit a document demonstrating what you have learned in the readings and during previous weeks. These documents are practice with the particular genres of writing familiar to engineering. (See the Introduction heading inside each module).

Assignments and Due Dates

The course is structured as follows:

- Discussion Questions, Activities and Peer Reviews are generally due Thursdays/Sundays by midnight, Mountain Standard Time (MST). This will be the due date for the responses associated with the readings and will involve two activities:
    o Working with writing projects, debriefing, peer reviewing and critiquing.
    o Discussion post on the discussion board of Canvas.
- Document Assignments are generally due on Sundays by midnight, Mountain Standard Time (MST). This will be for the written documents which reflect the different types of documents or genres you will encounter. The document assignments will be submitted through the Assignment Link in Canvas under each individual Module.
- PLEASE SEE THE *CALENDAR* (icon located in the sidebar) FOR SPECIFIC DUE DATES!

Activities, Peer Reviews, & Discussion Postings:

The Discussion Posts will allow you to develop an in-depth analysis of the content material for the week. The Activities and Peer Reviews will help you learn to critique

others' work and to understand the strengths and weaknesses of these documents. Each will be awarded set points as long as it meets minimal standards of form and content. Each discussion post is worth 20 points. The breakdown is as follows: Ten possible points for the original post. Five possible points for each reply (minimum of two reply posts required).

Written assignments (Documents):

These are the written documents where you demonstrate and practice the principles that you are reading about. These are the "finished products" where you show that you can incorporate the principles, skills, and techniques that we study each week. These carry the weight of the points. Each paper will be graded on content, form, and mechanics.

Submitting Assignments

All assignments, unless otherwise announced, MUST be submitted to the designated area of Canvas. Do not submit an assignment via email.

Assignment due dates follow Arizona Standard time. Click the following link to access the Time Converter to ensure you account for the difference in Time Zones. Note: Arizona does not observe daylight savings time.

Written assignments are due by 11:59 p.m. (MST) on the designated due date **(see Calendar Schedule located under the Calendar link inside the sidebar).**

You must submit assignments by the deadline on the due date to receive credit. Anticipate and plan for technical problems with the network and and with your own computer. Technology issues do not constitute valid grounds for missing or late assignment submission. Create a Plan B in case of problems: there are computer labs on all four ASU campuses and workstations in all of the libraries. Public libraries also have workstations. For your own protection, you should make back-op copies of all of your assignments and keep copies of emails to your instructor.

Work with the ASU Help Center if you experience difficulty with Canvas and be sure to plan for technical problems. To contact the ASU Help Center, call toll-free at 1-855-278-5080.

Document Format

Each assignment must be submitted (adhering to submission instructions) as a Microsoft Word format document and must be saved as a .doc or .docx or a PDF file.

No other file formats (.pages, .wps, zip, .txt. .jpg, .png, or .odt - to name a few) will be accepted for grading, including any non-viewable assignments with track changes. No **handwritten assignments** will be accepted; a zero will be recorded for submitted handwritten assignments.

Grading Procedure

Grades reflect your performance on assignments and adherence to deadlines. Grades and feedback will generally be available within five to seven business days of the due date in the Gradebook.

Late or Missed Assignments

All assignments are expected to be submitted on time. **No late or incomplete assignments accepted**. Published assignment due dates (11:59 p.m. Arizona Mountain Time) are firm. Technology issues do not constitute valid grounds for missing or late assignment submission. Be sure to have a "back-up" system in case your home computer, or laptop is not functioning. In the event of a University server outage, students should submit the assignment to Canvas when systems are restored.

Deadlines are extremely important in the professional world. Accordingly, in order for you to receive credit for your work in this course, the work must be submitted on time. Late work will only be accepted if you have made an arrangement with me BEFORE the deadline or in the event of an illness or emergency. Errors in posting do not constitute emergency. **All Forum Discussions must be submitted on time. No late postings will be accepted.**

Follow the appropriate University policies to request an accommodation for religious practices.) or to accommodate a missed assignment due to University-sanctioned activities.). If you are having trouble understanding or keeping up with assignments after a thorough reading of the instructions, post questions in the Community Forum for peer/instructor support as soon as possible.

Communicating With the Instructor
Community Forum

This course uses a discussion topic called "Community Forum" for general questions and comments about the course. Prior to posting a question or comment, check the syllabus, announcements, and existing posts to ensure it's not redundant. You are encouraged to respond to the questions of your classmates.

In order to make it easier to find answers to questions that may have already been posted, use a very clear, specific subject line. For example, do not use "Reference List." Instead, use "How to Cite an Academic Journal in the Reference List."

Do not use the "Community Forum" about your grade, instructor feedback regarding your work, or other questions that are related to your specific situation. Email questions of a personal nature to your instructor. You can expect a response within 48 hours.

Chat

The Chat tool in Canvas allows students and teachers to interact in real time. Use Chat only for informal course-related conversations unless your instructor informs you otherwise. Chat is not ideal for questions about assignments; instructors are not required to monitor it and conversations may be buried or lost.

Email

ASU email is an [official means of communication](#) among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

Students **must** use their ASU email account for all correspondence related to this course. (If you have a question that needs immediate attention, please email your instructor at Terri.Thorson@asu.edu.

All instructor correspondence will be sent to your ASU email account.

Writing Assistance

The Poly Tutoring & Writing Center offers free academic support services to all ASU students. At the Poly Tutoring & Writing Center, you will receive help in math, science, engineering, and computer science, among other subjects. You will also receive one-on-one help with writing assignments and one-on-one academic mentoring.

The Writing Center will be open virtually: Monday - Thursday 8:00 a.m. - 11:00 p.m., Friday 8:00 a.m. - 3:00 p.m. and Sunday 3:00 p.m. – 11:00 p.m. Writing and academic mentoring sessions are appointment-based. To book an appointment, please the website [https://tutoring.asu.edu/tutor-search)](https://tutoring.asu.edu/tutor-search) or call 480-727-1452. Online writing available is also available. For more information, please visit https://tutoring.asu.edu/online-tutoring

ASU Online Course Policies

View the [ASU Online Course Policies](#)

Title IX

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at https://sexualviolenceprevention.asu.edu/faqs.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, https://eoss.asu.edu/counseling is available if you wish to discuss any concerns confidentially and privately. ASU online students may access 360 Life Services, https://goto.asuonline.asu.edu/success/online-resources.html.

Accessibility Statements

View the Accessibility section to review accessibility statements for common tools and resources used in ASU Online courses.

If any other tools are used in this course, links to the accessibility statements will be listed below this sentence.

Syllabus Disclaimer

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Remember to check your ASU email and the course site often.