Summer 2012

EGR 335/535-01: Technical Communications for Engineers and Computer Scientists

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EGR 335/535 Summer 2012 Syllabus

Technical Communications for Engineers and Computer Scientists

Instructors:

Dr. Leo Finkelstein, Jr., Director of Technical Communication, College of Engineering and Computer Science and Department of Computer Science and Engineering (416RC) email: leo.finkelstein@wright.edu - http://www.finkelnet.com/

Office Hours: as designated by your instructor the first day of class.

Ms. Brandy Foster, Associate Director of Technical Communication, College of Engineering and Computer Science (414RC) email: brandy.foster@wright.edu

Office Hours: as designated by your instructor the first day of class.

Welcome to EGR 335/335, a specialized technical communication skills course that will let you apply principles and techniques of writing and presenting technical material to subject matter from your major field of study. You will be writing and briefing approved engineering and computer science topics of your choice. EGR535/335 is built around several small papers designed to help you develop fundamental component skills of technical writing, and a formal report and technical briefing that will give you an opportunity to pull these component skills together and apply them within your field. This course is not that difficult if you stay current; however, experience has shown that you don't have to get behind very much in a course like this to create an unrecoverable situation.

Grades

Your grade in this course will be derived as follows, or as your instructor determines:

• Mechanism Description 10%
• Process Description 10%
• Formal Report Proposal 15%
• Formal Report 45%
• Technical Briefing 15%
• Instructor Option (attendance & participation) 5%

Papers are due in class at the first of the class period on turn-in dates. Late papers receive an automatic deduction of 1/2 letter grade for the first 24 hours, and a full letter grade for any part of any 24-hour period thereafter. Papers received without all of the required parts, as described in this syllabus and in course handouts, are subject to a failing grade and may result in failure in the course.

Writing Assignments

NOTE: Specific format rules for writing assignments will be provided in individual taskings for each assignment; however, the following general requirements apply to all papers. Electronic submissions (email, FAX) are not allowed and will not be accepted, except as required by your instructor.

• First, everything you turn in must be typed or machine printed on standard 8 1/2" x 11" paper. Single sided is preferred but not required.
• Second, all text must be double-spaced.
• Third, you must use easily readable fonts of traditional size—i.e., in the range of 10 to 12 points for the body of the paper.
• Fourth, you must use traditionally sized margins on the top and bottom and the left and right sides. Margins from 3/4" to 1 1/4" are traditional enough for EGR 535/335.

Mechanism Description (MD)

A mechanism description provides a technical definition of the mechanism and describes its physical attributes. You will receive a Mechanism Description Tasking Sheet with the specifications for this assignment. Follow these specifications precisely. Also, refer to Chapters 3 and 4 of your text for discussions of technical definitions and mechanism descriptions, respectively.

Process Description (PD)

A process description starts with a technical definition. The PD then includes a description of the component parts of the process, including a description of whatever mechanism (real or conceptual) may be involved. Finally, the paper describes how the process works. You will receive a Process Description Tasking Sheet with the specifications for this assignment. Follow these specifications precisely. Refer to Chapter 5 of your text for a discussion of process descriptions.

Proposal (PROP)

The purpose of this technical proposal is to propose a topic and report type for your formal report in this course. You will receive a formal Request for Proposal (RFP) with the specifications for this assignment. Follow these specifications precisely. Also, refer to Chapter 6 of your text for a discussion of proposals, and Chapters 7 - 11 to familiarize yourself with the other major types of formal reports.

Formal Report (FR)

The formal report is where it all comes together. You'll have a great deal of freedom and flexibility in deciding how to focus and organize your proposed formal report. Variations from your proposal, even significant variations, may be permitted with prior approval of your instructor. In any case, the content should pull together the kinds of definition and description skills included in earlier papers. You will receive a Formal Report Tasking Sheet with the specifications for this assignment. Follow these specifications precisely. Also, refer to Chapters 6 - 11 of your text for discussions of the major types of formal reports, Chapter 13 for grammar and style, Chapter 14 for documentation, Chapter 15 for visuals, and Chapter 12 for abstracts and executive summaries.

In-Class Presentation (Technical Briefing)

As a communication skills course, EGR 535/335 also requires you to brief the class either summarizing your proposal or dealing with some aspect of your formal report topic. Your presentation must include visuals—e.g., viewgraphs or computer-generated presentation graphics, etc. You MUST time your briefing to run between 10 - 15 minutes. You may also have the opportunity to answer questions on the material you present after you complete your briefing. The schedule for class presentations will be developed during the quarter. Refer to Chapter 17 of your text for a discussion of presentations and briefings.
Academic Deficiency and Dishonesty

EGR 335/535 is a writing course, and, as such, you must do your own writing. If you extensively use materials that are not yours, even if you properly document their use, you may still fail the assignment for academic deficiency. If you commit academic dishonesty by plagiarizing materials that are not yours, you will automatically fail the course, and you will receive the full penalty provided for by university and college academic dishonesty policies. See Chapter 2 for a discussion of ethics in technical writing and pay particular attention to the section on plagiarism. If in doubt, always ask your instructor.

Course Texts

REQUIRED: Finkelstein, Leo, Jr., *Pocket Book of Technical Writing for Engineers and Scientists*, 3rd Ed. Boston: McGraw-Hill, 2008. NOTE: The first and second editions do not include current examples, outlines, documentation styles, and topics, and should not be used in this course.


Writing Across the Curriculum (WAC)

EGR 335 has been designated as a Writing Intensive (WI) Course in the Major for engineering and computer science students.

Course Materials and Help with Writing Fundamentals

Course handouts, syllabi, and schedules are available online at [www.finkelnet.com](http://www.finkelnet.com). For help in the fundamentals of writing, you are also encouraged to visit Wright State’s Writing Center.

Class Attendance

Attendance is required. If you do not regularly attend the class, do not expect to pass the course.

Office Hours

Dr. Finkelstein: if you can find him, you can talk to him—no appointment necessary, although you can make an appointment. He’s generally in his office (416RC), in 303RC, in 405RC, in the gym, or in an airplane flying somewhere when he’s not in class. Check his class schedule beside his office door.

Ms. Brandy Foster: you will be advised of her specific office hours and policies on the first day of class.

Note: Dr. Finkelstein and Ms. Foster are two different human beings with their own ways of doing things. Welcome to the real world.

COURSE SCHEDULE FOLLOWS:
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Mechanism Description Assignment

You are tasked to write a description of a mechanism with the following specifications:

• The subject mechanism must be a physical device with two or more parts that function together to achieve some purpose.

• The subject mechanism must be associated with, or closely related to, your major field of study.

• The mechanism description document must:
  • Be precise and technically correct, and must emphasize the mechanism’s physical characteristics, e.g., size, shape, material, finish, and color.
  • Follow Outline 4.1, pp. 38-39 of the course text.
  • Be consistent with the format rules for writing assignments as provided in the EGR 335 Syllabus for Summer 2012.
  • Be 2 pages in length (not counting visuals).
  • Include at least one visual.
  • NOTE: Ms. Foster’s students may have additional requirements not specified here.

This assignment is due on Lesson 6.

Please see your instructor if you have any questions about this assignment. Furthermore, once you have written your description, be sure to edit and review your paper carefully using the Mechanism Description Checklist on p. 56 of your course text.
**EGR 335/535 TASKING SHEET**

**Process Description Assignment**

You are tasked to write a description of a process with the following specifications:

- The subject must be: a) the operation of a physical device with two or more parts that function together to achieve some purpose; or b) a conceptual process of two or more steps that lead to some desired outcome.
- The subject must be associated with, or closely related to, your major field of study.
- The process description document must:
  - Be precise, technically correct, and emphasize the steps of a process, not material attributes.
  - Follow either Outline 5.1, p. 63 of the course text, or Outline 5.2, pp. 63-64 of the course text, depending on the subject.
  - Be consistent with the format rules for writing assignments as provided in the EGR 335 Syllabus for Summer 2012.
  - Be 2 pages in length (not counting visuals).
  - Include at least one visual.
  - NOTE: Ms. Foster’s students may have additional requirements not specified here.

This assignment is due on Lesson 10.

Please see your instructor if you have any questions about this assignment. Furthermore, once you have written your description, be sure to edit and review your paper carefully using the Process Description Checklist on pp. 75-76 of your course text.
Request for Proposal (RFP)

EGR 335 Formal Report (Summer 2012)

All students in EGR 335/535, Summer Quarter 2012, are hereby notified to submit individual proposals for their formal reports not later than the start of their respective class periods on Lesson 14.

Objectives

The requested proposal serves two purposes.

1. It constitutes a graded proposal assignment worth 15 percent of the course points to provide EGR 335/535 students with minimal experience and familiarity in writing proposals.

2. It provides a coherent mechanism by which EGR 335/535 students can develop a topic for their formal report assignment, select an appropriate report type, and receive critical feedback.

Topic Constraints

The formal report is the capstone assignment of EGR 335/535 and accounts for 45 percent of the course points. The proposed formal report topic should be selected from the student's major field of study, should be at a level of complexity appropriate for the student's knowledge and skill in the field, and should be substantial enough to qualify for a formal report.

Report Type Constraints

Students may propose a formal report type from the following list:

- Proposal (see course text, p. 81).
- Progress or Status Report (see course text, p. 111).
- Feasibility Report (see course text, p. 127).
- Instruction Set or Manual (see course text p. 175).
- Laboratory or Project Report (see course text p. 151).
- Research or State-of-the-Art Report (see course text p. 197).

Proposal Content

To be acceptable, proposals submitted in response to this RFP must follow Outline 6.1 for Informal Proposals in the course text, pp. 86, and must contain the following:
Introduction

- A Purpose Statement clearly stating that the proposed topic will fulfill the Formal Report requirement for EGR 335/535, Summer 2012.
- A Background Statement that provides information on the proposed topic, and that demonstrates the efficacy of this topic for the EGR 335/535 Formal Report assignment.
- A Scope Statement that clearly defines what will and will not be treated in the proposed formal report.

Discussion

- An Approach Statement that details specifically what the proposed paper will contain and how the research will be conducted.
- A Result Statement that describes the benefit of this report in terms of providing information and fulfilling course requirements.
- A Statement of Work that lays out the major tasks for completing the formal report assignment, including the primary deliverables: the Formal Report Briefing and the Formal Report Document. Each task statement also should clarify why the task is needed.

Resources

- A Personnel Statement specifying who will be doing the work or providing other resources, and why these people are qualified.
- A Facilities and Equipment Statement specifying what physical resources will be required and how they will be obtained.

Costs

- A Fiscal Statement showing the proposed budget for the project, including such costs as labor, travel, materials, and computer access.
- A Time Statement showing the hours required to complete the proposed formal report. Note: this information may be included in the Statement of Work.

Conclusion

- A Benefits Statement describing the advantages of adopting this proposed topic, as well as any risks associated with doing this topic.
- A Contact Statement listing a name and e-mail address or phone number where more information about this proposal can be obtained.
- An Annotated Bibliography that lists proposed sources for this report, including a statement describing how each source will be used.

NOTE: Ms. Foster’s students may have additional requirements not specified here.
Proposal Format

To be acceptable, proposals submitted in response to this RFP must follow the format requirements specified in the EGR 335/535 Course Syllabus for Summer 2012. The proposal must be at least four pages long, not counting visuals.

Proposal Documentation

To be acceptable, proposals submitted in response to this RFP must provide any required documentation using one of the formats provided in the course text, Chapter 14, p. 255.

Proposal Checklist

To be acceptable, proposals submitted in response to this RFP must be consistent with the Proposal Checklist in the course text, p. 104.

Deliverables and Schedule

Students will provide for the following deliverables in their Proposal:

• Formal Report Presentation (briefing) dealing with some aspect of the Formal Report at a time and place to be determined.

• Formal Report Document to be delivered in class at the beginning of class on Lesson 20.

References

Course Texts


Course Syllabus

EGR 335/535 Course Syllabus, Summer 2012.
EGR 335/535 TASKING SHEET

Formal Report Assignment

You are tasked to write a formal report with the following specifications:

1  General Requirements

1.1  Topic and Type. The topic and report type must be that which you proposed in your formal report proposal. Variations from your proposal, even significant variations, may be permitted, but only with prior approval of your instructor. The topic also must be associated with or closely related to your major field of study.

1.2  Accuracy. The formal report must be precise and technically correct.

1.3  Format. The formal report must follow the appropriate outline provided in the course text for the type of report you're producing. Where an appropriate outline may not exist, you may develop an alternative report outline, but only with prior approval of your instructor. The formal report also must be consistent with the format rules for writing assignments as provided in the EGR 335 Syllabus for Summer 2012.

2  Specific Requirements

2.1  Sections. The formal report must include the following sections:

• Transmittal letter
• Title page
• Informative Abstract or Executive Summary
• Standard Introduction, including a purpose statement; a problem statement or introductory background discussion, as appropriate; and a scope statement
• Discussion (the main section of your report)
• Conclusion (may include a summary and recommendations, as appropriate)
• List of References
• Appendix (as appropriate).
• NOTE: Ms. Foster’s students may have additional requirements not specified here.

2.2  Length. The formal report must be at least 10 pages in length not counting the transmittal letter, title page, abstract/executive summary, table of contents, reference list, or appendix.

2.3  Documentation. The formal report must be adequately and properly documented in an acceptable format. Failure to do so may result in your failing the formal report
assignment and the course. Use the documentation format provided in the course text, Chapter 14, pp. 255-268, or an alternative style with prior approval of your instructor. Document visuals as shown in Chapter 15, pp. 269-290. Be sure to include specific source citations (either parenthetical or notational) in the text at the point of reference. Simply listing references at the end of the paper without citations in the text is not acceptable. If you have any questions or concerns regarding documentation, by all means see your instructor as soon as possible.

2.4 Due Date and Penalties. The formal report must be submitted in class at the first of class on Lesson 20.

NOTE: Unless you have arranged in advance with, and have the specific permission of, your instructor, electronic submission of any assignment, including this one, is not acceptable and will not be acknowledged or considered in your final grade.

3. References

3.1 Course Texts


3.2 Course Syllabus

Finkelstein, Leo, Jr., EGR 335/535 Course Syllabus, Summer 2012.