CBM003 ADD/CHANGE FORM

☒ **Undergraduate Council**	**or**	☐ **Graduate/Professional Studies Council**
☐ New Course ☒ Course Change		☐ New Course ☐ Course Change
Core Category: _WIO_ Effective Fall <u>2009</u>		**Effective Fall __**

1. Department: <u>Engineering</u>   College: <u>ENGR</u>

   RECEIVED OCT 2 4 2008

2. Faculty Contact Person: <u>Chad Wilson</u>   Telephone: <u>3-0180</u>   Email: <u>cawilson@uh.edu</u>

3. Course Information on New/Revised course:
   - Instructional Area / Course Number / Long Course Title:
     <u>ENGI</u> / <u>2304</u> / <u>Technical Communications</u>

   - Instructional Area / Course Number / Short Course Title (30 characters max.)
     <u>ENGI</u> / <u>2304</u> / <u>TECHNICAL COMMUNICATION</u>

   - SCH: <u>3.00</u>   Level: <u>SO</u>   CIP Code: <u>14.0101.00 06</u>   Lect Hrs: <u>2</u>   Lab Hrs: <u>3</u>

4. Justification for adding/changing course: **To provide appropriate foundation for course**

5. Was the proposed/revised course previously offered as a special topics course? ☐ Yes ☒ No
   If Yes, please complete:
   - Instructional Area / Course Number / Long Course Title:
     ____ / ____ / ____

   - Course ID: ____   Effective Date (currently active row): ____

6. Authorized Degree Program(s): ____
   - Does this course affect major/minor requirements in the College/Department?   ☒ Yes ☐ No
   - Does this course affect major/minor requirements in other Colleges/Departments?   ☐ Yes ☒ No
   - Can the course be repeated for credit?   ☐ Yes ☒ No (if yes, include in course description)

7. Grade Option: <u>Letter (A, B, C ...)</u>   Instruction Type: <u>lecture/ONLY</u> / lab   (Note: Lect/Lab info. must match item 3, above.)

8. If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title
   <u>ENGI</u> / <u>2304</u> / <u>Technical Communications</u>

   - Course ID: <u>21301</u>   Effective Date (currently active row): <u>20053</u>

9. Proposed Catalog Description: (If there are no prerequisites, type in "none".) or   or   or
   Cr: 3. (2-3). Prerequisites: ENGL 1304, admission to ENGR, and (CHEE 2331, CIVE 2330, ECE 2331, INDE 2333 or MECE 2336). Description (30 words max.): Technical communication skills, with emphasis on writing of technical documents, oral presentations, and visual aids using modern computer technology.

10. Dean's Signature ▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓▓ Date: <u>21 Oct 2008</u>

    Print/Type Name: <u>David P. Shattuck</u>

U N I V E R S I T Y *of* H O U S T O N

CORE CURRICULUM COURSE REQUEST

Originating Department/College: __Cullen College of Engineering__

Person making request: __Chad Wilson__ Telephone: __3-0180__

E-mail: __cawilson@uh.edu__

Dean's signature: ▉▉▉▉▉▉▉▉▉ Date: _Nov. 6, 2008_

I. General Information:

Course number and title: ENGI 2304: Technical Communications for Engineers

Catalog description must be included on completed CBM 003 form and attached to this document.

Category of Core for which course is being proposed (mark only one):

- _____ Communication
- _____ Mathematics
- _____ Mathematics/Reasoning (IDO)
- _____ American History
- _____ Government
- _____ Humanities
- _____ Visual/Performing Arts Critical
- _____ Visual/Performing Arts Experiential
- _____ Natural Sciences
- _____ Social/Behavioral Sciences
- __X__ Writing in the Disciplines (IDO)

II. Objectives and Evaluation (respond on one or more separate sheets):

Call ext. 3-0919 for a copy of "Guidelines for Requesting and Evaluating Core Courses" or visit the website at www.uh.edu/academics/corecurriculum

A. How does the proposed course meet the appropriate Exemplary Educational Objectives (see **Guidelines**). Attach a syllabus and supporting materials for the objectives the syllabus does not make clear.

> **The policy statement and schedule explain how the entire course is designed to meet these needs. Please see the attached materials at the end of this document.**

B. Specify the processes and procedures for evaluating course effectiveness in regard to its goals.

The course is evaluated in three primary ways:

- Internal evaluations, such as teaching evaluations that address how well the students learn the exemplary educational objectives.

- Portfolio of student work done throughout the semester, including an individual evaluation of the material.

- Exit and post-graduate surveys of all engineering students to determine how well they learned the skills and what more they need.

C. Delineate how these evaluation results will be used to improve the course.

- **The course changes according to the evaluations. In the past, the course has moved from a social science course to a more technical report course, and now it is changing to a more research/design course. These changes are made primarily based on student input through course evaluations.**

SVP. Effective 5/2/08. Replaces all previous forms, which may no longer be used.

Technical Communications

Policy Statement – Fall 2008

Section 20308

Section: 20308
Instructor: Chad A. B. Wilson
Office: N319-D

Phone: 713.743.0180
E-mail: cawilson@uh.edu

Course Description

ENGI 2304: Technical Communications. Cr. 3. (2-3). ENGL 1304, admission to an Engineering major, and sophomore standing in Engineering. Technical communication skills, with emphasis on writing of technical documents, oral presentations, and visual aids using modern computer technology.

Expected Course Goals and Outcomes

ENGI 2304 seeks to teach students the basics of engineering writing through various reading and writing projects. The course will introduce students to scientific research, including documents generally required in engineering, but will do so through projects that require critical thinking and analysis.

Outcomes

Students who successfully complete this course are expected to demonstrate the following course outcomes:

- An ability to function on multi-disciplinary teams
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The broad education necessary to understand the impact of engineering solutions in a global and societal context
- A recognition of the need for, and an ability to engage in life-long learning
- A knowledge of contemporary issues

Expectations of the Student

Based on these outcomes, students are expected to develop or learn the following:

- Confidence in communication, both oral and written
- Knowledge about the style and format of engineering writing
- The ability to create documents written in the correct format
- The ability to adapt content and style depending on the needs of the audience
- The ability to adapt content and format depending on the purpose of the document
- The ability to edit and revise one's own work for content, style, and mechanics
- The ability to find information on scientific or engineering topics

- The ability to manage a group and produce group documents and/or presentations effectively and efficiently

Required Texts

Finkelstein, Leo. *Pocket Book of Technical Writing for Engineers and Scientists*. Boston: McGraw-Hill, 2005.

Recommended Texts

Florman, Samuel. *The Civilized Engineer*. New York: St. Martin's, 1987.

Email and Blackboard

You should have an e-mail address tied to your UH account. We will use Blackboard to post all materials and to enable active communication. The procedures for joining Blackboard will be described during the first class period. You should consult Blackboard regularly to ensure that you are up-to-date on all course materials.

Discussions and In-Class Writing

This is a writing-intensive, discussion-based class, requiring active involvement, intellectual engagement, and constructive collaboration from every student. Class discussion is the foundation of this class. Thus, every student's presence, preparedness, and active participation are required.

The Role of Writing Consultants and the Writing Center

Students will have at least two conferences with course Writing Consultants during the semester. These conferences give the student an opportunity to receive direct instruction and feedback and address individual and group learning concerns. Writing Consultants will be available by appointment and during scheduled office hours.

As integral members of the course's instructional team, course Writing Consultants will be able to help students clarify and apply writing instructions, techniques, and lessons throughout the development of each student's assignments. Though they are available for assistance, Writing Consultants *do not* proofread, dictate content, or co-author students' papers, nor do they predict what grade an assignment might earn.

The penalty for not attending a scheduled appointment with a Writing Consultant is a deduction of 2.5 points from the student's final grade in ENGI 2304. Attending a scheduled appointment without the required materials will result in the same deduction. If you need to cancel an appointment, you must do so with the Writing Center at least 24 hours before your appointment. Make sure you are there for your appointments and that you have material to work on.

Grading

Table 1 shows the grading for for assignments in ENGI 2304. The Letter of Intent, Proposal, Progress Report, Description of a Mechanism, Individual Technical Presentation, and Poster comprise the semester project, as discussed later.

Table 1. Assignments and Grade Percentages for ENGI 2304. Note that presentations are in italics.

Assignment	Grade Percentage
Document Creation Group Presentation	2.5%
Letter of Intent with Technical Definition	7.5%
Resume and Cover Letter	7.5%
Proposal	10%
Progress Report	12.5%
Description of a Mechanism	12.5%
Individual Technical Presentation	5%
Poster	5%
Civilized Engineer Presentation	5%
Presentation Critiques	2.5%
Response Journals	15.0%
Discussion Board Posts	5%
Portfolio Introduction	5%
Professionalism	5.0%
Total:	100%

Attendance

Students should contact the instructor in advance if they must be absent or tardy. Emergency absences will be handled on a case-by-case basis. Missing more than four sessions may prevent the student from meeting the minimum requirements for the class, and will negatively affect the student's class contribution grade. The second occasion of tardiness will count as half an absence, provided the student arrives within the first 15 minutes of class. Arriving 15 minutes late to class equals a full absence. Students who miss class should arrange to get notes from a fellow student.

Withdrawal Policy

The withdrawal dates listed in the Academic Calendar section of the Class Schedule will be followed strictly. Please consult this document for appropriate dates. Grades of Incomplete (I) will be given only when a small portion of the course has not been completed for a good reason. If the material has been completed, an "I" grade cannot be given. Detailed information about these issues is available in the Student Handbook on page 17.

Academic Honesty Policy

This class will function as a community of writers and project managers, sharing ideas and contributing to a general discourse. According to university and department policy, plagiarism (broadly defined as passing off somebody else's work as your own) constitutes grounds for penalties, including failure of the assignment in question, failure

of the course, or suspension from the University. Students should protect themselves by keeping notes and drafts of all written work, and developing a clear understanding of documentation. Students in this course are expected to follow the <u>Academic Honesty Policy</u> of the University of Houston. It is your responsibility to know and follow this policy.

Proper documentation must be provided for any use of data, ideas, or work that did not originate with the student. Any statement of facts that are not the student's own and are not accepted as common knowledge must be properly referenced. The documentation style you follow is up to you, but make sure you are consistent. I recommend the one in Finkelstein, IEEE, or CMS.

All aid from students, professors, family members, etc. should be noted at the end of each assignment. Seeking assistance with most written assignments is perfectly acceptable – provided that assistance is documented, credited, and permissible within the limits of the assignment. Students are strongly encouraged to seek assistance from the instructor, course Writing Consultants, or fellow students within the class. Students who fail to acknowledge all assistance they receive will be penalized according to the University's standards regarding academic honesty.

Use of Turnitin.com
Assignments should be submitted to <u>www.Turnitin.com</u> for review. You may submit all of your assignments to check them yourself, but the final version should be submitted on the date it is due. It should also be submitted to Blackboard. We will discuss this during class.

Students with Disabilities

Students with recognized disabilities will be provided reasonable accommodations appropriate to the course, upon documentation of the disability with a Student Accommodation Form from the Center for Students with DisAbilities. To receive these accommodations, you must request the specific accommodations by submitting them to the instructor in writing by the 16th calendar day of the semester. Students who fail to submit a written request will not be considered for accommodations. For more information, see the <u>Student Handbook</u>, page 27. Contact CSD in room 305 of the Student Service Center (or call 743-5400 / voice, 749-1527 / TDD).

The Counseling and Psychological Services Office (CAPS) offers individual and group counseling for a variety of personal, vocational, and academic issues. Health professionals are available to address a variety of concerns, including stress, anxiety, depression, financial worries, time management, and academic adjustment. All services are confidential. CAPS is located on the second floor of the Student Service Building (or call 743-5454).

Religious Holy Days

Students whose religious beliefs prohibit class attendance on designated dates may request an excused absence. Request the excused absence in writing by the 15th calendar day of the semester. Consult the <u>Student Handbook</u> for more info.

Explanation of Assignments

Written Assignments
Unless otherwise directed, all papers must
- be submitted to the Blackboard Digital Drop Box
- be submitted to www.turnitin.com
- be turned in in a manila folder (not including the Response Journals)
- be typed in 12-point Times New Roman font
- be double-spaced
- have 1.25 in. margins
- have **numbered pages** (if appropriate)
- include an appropriate heading
- include an appropriate title
- be stapled
- acknowledge all aid from students, professors, family members, etc. at the end of every assignment.

Late Assignments
Late assignments will be accepted, but not without penalty. One letter grade will be deducted for the first class period an assignment is late. After the first class period has passed, three letter grades will be deducted, and one grade will be deducted for every class period after the second. For example, if an essay is due on Monday and is not turned in during the class period, it is considered late. If it is turned in during or anytime before the following class, ten points will be deducted from the final grade. If it is turned in after the following class, but before or during the next class, 30 points will be deducted from the final grade on the assignment.

Peer reviews may not be made up. Not attending a peer review session or coming without a COMPLETE draft will result in a grade of 0 for the peer review.

Digital Submission of Materials
All assignments, including presentations, must be turned into the Digital Drop Box of your Blackboard account **before class** on the day they are due. They must be saved in the following manner:

Last name First name ENGI 2304 Assignment title.doc (or .ppt)

Therefore, if I were turning in my technical report, I would label it

Wilson Chad ENGI 2304 Technical Report.doc

Please follow these guidelines for all of your work.

Professionalism

This portion of your grade will be determined by your absences, tardies, willingness to participate in class discussions and during group work, peer reviews, as well as your overall professionalism in the class. Treat the class professionally, and you will do well in this category. (A sense of humor is generally not grounds for deduction.) Any reading quizzes will affect this category.

Peer Reviews
We will have several Peer Reviews, and the goal of these assignments is to help your peers. You will be graded on the depth of your response, as well as the helpfulness of your comments. Always try to provide concrete, clear suggestions in your Peer Reviews. As stated earlier, if you miss a Peer Review session, come in after the session has already begun, or if you do not have a COMPLETE draft, you will receive a grade of 0 for the Peer Review.

Discussion Board Entries
Each student is required to post to our course Discussion Board at least *twice* a week. However, you are encouraged to post more than twice a week, and multiple posts will improve your Professionalism grade.

Discussion Board posts should be a mixture of new posts and responses to other students. I encourage you to read and respond to what other students are asking or saying. If you only post new ones without responding to other students' posts, your Professionalism grade will suffer.

Discussion Board entries can cover anything about the class, about technical writing, or about school in general. You may comment, ask questions, or answer questions so that other students can benefit from your knowledge and so that you can help others, as well. **Posts must be substantial, however.** Although I don't really grade on length, a lone question such as "Does anyone understand the proposal?" will generally be seen as Unacceptable, unless the student has posted another response during the posting period. If the student explains why the proposal is confusing, however, then the response would be Acceptable. There are only three don'ts here:
- Do not merely complain about the class. These entries don't really help anyone, and they tend to annoy the instructor, which is never a good idea.
- Do not insult anyone. Remember to treat the class professionally, which means you should treat your classmates professionally, too.
- Do not merely repeat information from your Response Journals. Your posts should be wholly different.

Discussion Board posts will be graded as either "Acceptable" or "Unacceptable" based on the following criteria:
- Depth of response (evidence of thought)
- Appropriateness for audience and forum
- Clarity of writing

Although "clarity of writing" is included here, spelling, grammar, and mechanics will not generally be a factor in your grade. However, if an entry is not easily comprehensible

because of its confusing writing, then there is no way to judge the "depth of response," and the entry is therefore not "appropriate" for the given audience. Thus, any entry which has numerous mistakes or errors that impede its understanding will be graded as Unacceptable. Unacceptable responses are equivalent to a grade of 0, or not doing the assignment at all. I will email you if one of your posts is Unacceptable.

Response Journal
You will turn in six Response Journals over the course of the semester. Make sure you follow the syllabus to see when your Response Journals are due and what material they should cover. Your Response Journal entries should be more than one double-spaced page, and should contain at least two or three complete paragraphs. They should be a maximum of two pages.

1<u>st</u> <u>Paragraph</u>. These journals require you to do two different things. Your first **short** paragraph should summarize whatever reading assignment you have for that week. If you are required to read a Sherlock Holmes story or a news story, you should summarize the main points of those items. This paragraph should be rather short—a quarter to a half a page. If your summary is longer than half a page, your journal will be deemed Unacceptable.

2<u>nd</u> (and 3<u>rd</u>) <u>Paragraphs</u>. The next paragraphs of each Response Journal should react to the reading—asking questions, offering answers, clarifying, or problematizing anything discussed in the reading assignment. This is difficult, but it is also the place where you demonstrate your critical thinking abilities. The point is to show me that you have not only read, but that you have paid attention, thought about, dissected, and learned from the material in our readings. Use your engineering problem-solving abilities to question and examine our readings.

I have fielded a few questions about how students can improve their Response Journals, and most of them boil down to my phrase "go deeper." What I mean by "go deeper" is this: any situation that you talk about in your Response Journals needs to be viewed from every possible angle. That's perhaps impossible, granted, but you need to examine situations as complex problems with no easy answer.

For example, in "The Adventure of the Engineer's Thumb," Holmes says that Hatherley gained experience, hinting that he now knows not to accept jobs like that again. Do we have to take Holmes's word for that, though? Could Hatherley have gone through the same situation and come out fine? Is it possible that Hatherley was in on the counterfeiting scheme all along? Is it possible that Hatherley did not tell the truth about everything he says about that night? Would you really have done anything differently?

So when it comes to contemporary issues, don't be content with describing what happens with technology or in the news. Instead, "go deeper." If there is an explosion at an oil refinery, perhaps you can go into an examination of government regulations of these refineries. Why are there some strict regulations and some lax ones? Does the fact that we

live in Houston have anything to do with how strict they are? What about the number of cars we drive? The lack of public transportation?

All I want to see is that you are thinking critically, which means to try to see and describe something from all sides. Doing this requires a lot of space, however, so it is generally better if you pick one aspect and flesh it out.

Response Journals will be graded on an Excellent—Acceptable—Unacceptable scale based on

- Evidence of reading
- Depth of response
- Clarity of writing

As with the Discussion Board posts, grammar and mechanics will not generally be grounds for Unacceptability unless the Response Journal is incomprehensible. Still, a number of errors in any piece of writing show carelessness or a lack of professionalism, which is enough to dock a Response Journal from Excellent to Acceptable or from Acceptable to Unacceptable.

Make sure you keep all graded Response Journals for submission in your portfolio.

Daily Civilized Engineer Presentations

Each student will be responsible for one daily presentation covering a chapter from Samuel Florman's *The Civilized Engineer* (a recommended text for this class). Your presentation should be a 5-7 minutes long (**maximum** of 7 minutes) PowerPoint presentation, and it should summarize the material from the chapter. The rest of the class has not read the material from Florman, so your job is to teach them the material using PowerPoint slides. Keep in mind that you are the only one who has read the material (besides me) and that you must explain everything carefully so we can understand it.

To do well in these presentations, keep the following in mind:

- Read the chapter from Florman several times until you fully understand his points.
- Decide which points from the chapter are most interesting or most important. In other words, which parts should you concentrate on? You only have a few minutes, so you may need to choose the important information from the chapter and disregard the rest.
- Do not follow the format of the chapter if it doesn't work well for a PowerPoint presentation.
- Make it clear which points of your presentation are Florman's and which are yours. Use phrases such as *"Florman* says ..., but *I* think he misinterprets this point because..."
- Use pictures (clearly documented with the URL or list of references) to help explain Florman's points.
- Do not read long passages of text unless it is absolutely necessary and you will dissect those passages for us.

Your presentations should be uploaded to Blackboard's Digital Drop Box before class begins, and you must complete your entire presentation with questions answered by 10 minutes after class is scheduled to begin.

Presentation Critiques

Students will be required to review two presentations, including the Daily Civilized Engineer Presentations and the Individual Research Report Presentations. For the Daily Civilized Engineer Presentations, you will choose the date of your review on the same day you choose the date of your presentation. For the Individual Research Report Presentations, you will be randomly assigned a presentation to critique.

Daily Civilized Engineer Presentation Critiques will be due one class period after the presentation was completed, no matter what else is due that class period. Therefore, you should choose the day of your review wisely and plan accordingly.

Individual Research Report Presentations will be due the class period after all presentations have been completed.

You should email your presentation critiques via Blackboard both to the presenter and to the instructor.

Your Presentation Critiques should include the following:
- One-paragraph summary of the presentation. Include an explanation of the topic, a few details about the topic, and the purpose of the talk.
- One paragraph discussing the presentation slides. Did the presenter follow all of the guidelines for good presentations? What did the presenter do well? What did the presenter do poorly? Did he or she use animation? Bullet slides? Pictures, diagrams, tables? Overview slides? Were the slides interesting or boring?
- One paragraph discussing the oral delivery of the presentation. Did the presenter make eye contact? Did he or she get lost? Had the presenter practiced the presentation before? What did he or she do well and poorly?

Remember that your critiques are not anonymous, so the presenter will know who has written the critique. Therefore, you should write your critique as nicely as possible. Do not make statements such as "This was the worst [or best] presentation I have ever seen." Instead, say, "The presenter was very good with his eye contact. He constantly looked around the room. However, at several points, he kept his hand in his pocket and stared at the floor."

Your Presentation Critiques should be no more than two double-spaced pages and will be graded on the following criteria:
- Quality of summary
- Understanding of the guidelines for good slides and critique of the presenter's slides
- Understanding of a quality presentation and critique of the presenter
- Quality of writing and use of judicious language to critique the presentation

- Grammar and mechanics

Document Creation Group Project

For this assignment, you will join with two partners to write a 1-2 page handout for every member of the class and to create a PowerPoint presentation on the following topics:

Group 1: How to use MS Word's outline feature to help write complicated documents.
Group 2: How to paginate a long technical report in MS Word.
Group 3: How to create and label tables, figures and equations in MS Word.
Group 4: How to create an automatic table of contents and list of tables and figures.
Group 5: How to create and import Gantt Charts from MS Excel to MS Word.
Group 6: How to use MS Project to plan work.

Assume that your audience will write a long technical report with the sections listed in Table 2.

Table 2. List of Sections for Standard Technical Report

Letter of Transmittal	• Statement of Goals and Accomplishments
Title Page	• Design and Methodology
Table of Contents	• Results
List of Figures and Tables	• Professional Component
Abstract	• Conclusion/Summary
Main Body	References
• Introduction	Appendices
○ Purpose	
○ Background	

Goal

The goal for your group presentation is to teach the class about your subject. You may reference your handout during your presentation, and you may also ask your "students" to work on their computers during your presentation. Students will then have the detailed handout to help them in the future.

Presentation

Your presentation should not last more than 15 minutes (and it should be as close to that time as possible). You will need PowerPoint slides, but the number will depend on whether you ask students to work on their own computers. Remember that you should spend at least one minute per slide, but you may spend longer than this. Remember to document all sources, including pictures you use on your slides.

Handout

Your handout should follow the guidelines for instructions in *PBTW* (167-190). Use clear explanations and include step-by-step instructions for specific parts. Try to make these look like professional instructions using clear guidelines and a variety of figures or pictures.

Research

Although you may need to research MS Word to gather information on your topic, no part of your handout or presentation should be taken directly from a source without proper documentation. For information on documentation, see *PBTW*.

Overview of Semester Project

Each of the semester projects in ENGI 2304 will cover the same subject, but you have three options. All options should include seven parts:
1. Letter of Intent, including Technical Definition
2. Resume and Cover Letter
3. Proposal
4. Progress Report
5. Description of a Technical Process or Mechanism or a Research Report
6. Poster for Engineering Students
7. Technical Presentation

Option 1: the dissection of a small appliance or device. Each student should individually go to a thrift store and purchase a small appliance such as one of the following:
- Blender
- Food processor
- Ice cream maker
- Mixer
- Any other approved appliance or device

If you wish to write on an item not on this list, ask your instructor. The guidelines are that the appliance should have moving parts, and you should be able to *safely* dissect it. Remember that the appliance should not be plugged in, and you should remove all sharp parts carefully. Follow all necessary safety precautions.

You will write the following documents concerning this project:

- <u>Letter of Intent, including Technical Definition</u>: This letter acts as a mini proposal. It should introduce the topic you will write about and should then define the appliance you will dissect. If you are writing about a blender, for instance, you will define exactly what a blender is by using Finkelstein's guidelines. The guideline for the letter of intent is one page.

- <u>Resume and Cover Letter</u>: As a part of your proposal to have your project accepted, you should turn in a resume and cover letter with relevant experience about why you are the best person for this project.

- <u>Proposal</u>: Once your Letter of Intent has been reviewed, you should turn in a more complete proposal. Here, you will explain the rest of your project. You will describe the device you will dissect by using your revised technical definition. Then you will explain exactly how you will go about writing the Description of a Technical Process or Mechanism, the Technical Presentation, and the Poster for Engineering Students.

  The proposal should include a cover letter, title page, and table of contents. Under the section "Personnel," include your revised resume along with all important

information included in the paragraph itself. No sources are needed, but if you use sources, make sure they are documented. The proposal should be at least four pages long, *not including the front matter* (cover letter through table of contents). Divide your project into milestones and tasks. Each milestone should have three to five tasks. Then include these milestones and tasks in Gantt chart that is labeled and introduced correctly like any other figure.

- <u>Progress Report</u>: For this report, you will explain where you are in your dissection of the device. Use the milestones and tasks from your proposal to explain whether you are on schedule or not. These reports should include a cover memo (with the same information as a cover letter) and then a title page. In the body of the report, you should include an updated Gantt chart that explains the timeline for completing the project. These reports must be at least three pages long, not including the cover memo and title page.

- <u>Description of a Technical Process or Mechanism</u>: For this report, you will use the technical definition and expand on it by explaining exactly how the thing you defined works. This report is where you use pictures of your dissection to explain exactly how the device functions.

  These reports must include a cover letter, title page, and table of contents. They should also use at least three sources, one of which must be from a print source. Failure to document sources using a standard referencing system will deduct 20 points from your grade. These reports must include at least one figure and one table. These reports must be at least seven pages long, including the front matter.

- <u>Poster for Engineering Students:</u> For this poster, each of you will explain your device in a single PowerPoint slide. See <u>http://www.swarthmore.edu/NatSci/ cpurrin1/posteradvice.htm</u> for more information on technical posters.

- <u>Technical Presentation</u>: For this presentation, you will present how your device works using the pictures you took and a logical organization. The presentations should be a maximum of six minutes long.

Option 2: Propose a research project that will educate the class about a recent development in physics, chemistry, math, engineering, or technology. These proposals can be about any technical topic that interests you, as long as information is available in the library or online. Recent topics have included LCDs, rotary engines, new and developing NASA missions, space elevators, and MEMs. Choose a topic that you may want to work on in your future classes or in your future job.

For Option 2, include the standard seven projects, but you may write a research report instead of a description of a technical process or mechanism.

Option 3: Propose to write a paper on the scientific ideas presented in a novel. Examples of novels would be *Angels and Demons* by Dan Brown, *Zen and the Art of Motorcycle Maintenance* by Robert Pirsig, *Neuromancer* by William Gibson, *The Diamond Age* by Neal Stephenson, *Prey* or *Next* by Michael Crichton, or some other work that includes science, such as any hard science fiction. Your research project will include all of the same deliverables as the other options, but will instead focus on explaining the scientific material presented in the novel, as well as the feasibility of the material. You must talk to me about your novel BEFORE you choose Option 3.

Option 4: Propose to design an improved version of an ink pen. Your proposal will explain the problems with current pen designs and then indicate the specifications or parameters that your new pen design will meet. Your final paper, presentation, and poster will provide the design of the new pen along with explanations concerning its improvements over existing pens.

Instructions for the Portfolio

Contents of the Portfolio

The Portfolio should contain every item from the entire semester in a single digital document. Use page numbers to organize the contents and include a table of contents. You may revise one final piece for the Portfolio to have it re-graded. If you choose to revise one of your assignments, mark that item in the table of contents and include it at the beginning of that section. Penalties for lateness or length requirements may not be made up, however. Include a heading that states which piece you have revised directly in front of the original graded piece.

- Title Page
- Table of Contents
- Introduction
- Final Version of Resume and Cover Letter
- Document Creation Group Assignment
  - Handout for your topic
  - Printed copes of PowerPoint slides (four per page)
- Technical Definition
- Proposal
- Progress Report
- Description of a Process or Mechanism
- *Civilized Engineer* Presentation slides
- Poster
- Technical Presentation slides
- Group PowerPoint Presentation slides
- Response Journals
- Critique of Civilized Engineer Presentation
- Critique of Technical Presentation

Contents of the Introduction

Your introduction should contain at least two complete pages of material, organized in paragraphs. Please include discussions of the following information, but use effective transitions to flow between your ideas:

- Discussion of your writing process: Now that you have completed ENGI 2304, describe your process when you write. Has this process changed since you entered this course? How and why or why not?
- Discussion of your writing abilities: After completing this course, describe how your writing abilities have changed or not changed. Identify your strong and weak points. How can you continue to work on these weak points?
- Discussion of what you consider to be your best and worst final pieces included in the portfolio: Why do you consider these to be your best and worst pieces?
- Discussion of your future as an engineer: How much writing will you have to do when you graduate? What sorts of writing? How do you feel about your abilities to complete these writing tasks? How will you proceed with them?

Fall 2008 Schedule Tuesday Hybrid

WEEK ONE	
Tuesday August 26	• Discuss www.turnitin.com and blackboard.
Thursday August 28	• Read Schedule and Policy Statement. • All post to Discussion Board by Friday at 5:00 PM. • *View "Conventions of Engineering Writing."* • *View "Professional Correspondence."*
WEEK TWO	
Tuesday September 2	• Presentation on Chapter 1 of *The Civilized Engineer*: **Instructor.** • Work on presentations
Thursday September 4	• Turn in **Response Journal #1** on Doyle's "The Engineer's Thumb" at http://www.eastoftheweb.com/short-stories/UBooks/AdveEngi.shtml. What ethical situation does Hatherley face? How could the "Code of Ethics for Engineers" (http://www.nspe.org/resources/pdfs/Ethics/CodeofEthics/Code-2007-July.pdf) have guided Hatherley? Be sure to use the standard citation/referencing system that Finkelstein recommends in Chapter 14 of *PBTW*. • *View "Using PowerPoint."* • *View "Oral Delivery of Presentations."*
WEEK THREE	
Tuesday September 9	• Group Presentations. • Draft Letter of Intent due to discussion board today.
Thursday September 11	• Peer Review of draft Letter of Intent due back to discussion board today.
WEEK FOUR	
Tuesday September 16	• Group Presentations • Letter of Intent due today.
Thursday September 18	Homework due today: • *View "Plagiarism."* • *View "Citations and Documentation."* • Turn in **Response Journal #2** on a current issue facing engineers in your discipline. Find an important magazine for your discipline (either online or in the library) such as IEEE Spectrum (www.spectrum.ieee.org) or ME Magazine (www.memagazine.org) and read one of the feature articles. Summarize and then comment or analyze the article. Include a URL and source name in the text of your journal.
WEEK FIVE	
Tuesday September 23	• Presentation from University Career Services • Draft of Resume and Cover Letter due to Discussion Board today (in a single document).
Thursday September 25	• Peer Review of Resume and Cover Letter due back to Discussion Board today. • Turn in **Response Journal #3** on a contemporary issue that poses challenges for engineers in your discipline. Search cnn.com or another new source to find a current issue. Then analyze that issue to describe how it affects engineering and how engineers may or should deal with it. Include a URL and source name in your journal.
WEEK SIX	
Tuesday	• Library Workshop: meet in 10G

September 30	• Final Resume and Cover Letter due today.
Thursday October 2	• Turn in **Response Journal #4** on Doyle's "The Adventure of the Creeping Man," found at http://etext.library.adelaide.edu.au/d/doyle/arthur_conan/d75ca/creeping.man.html. Analyze an ethical situation presented in the story. • *View "Proposals."*

WEEK SEVEN

Tuesday October 7	• Library Workshop: meet in 10G • Draft of Proposal due to Discussion Board today.
Thursday October 9	• Peer Review of draft Proposal due back to Discussion Board today. • *View "Recognizing the Parts of Sentences"* • *View "Subject-Verb Agreement"* • *View "Abstracts"*

WEEK EIGHT

Tuesday October 14	• Final Proposal due today.
	• Presentation on Chapter 2 of *The Civilized Engineer*: __Justin Conroy_____
	    Reviewer: _____
	• Presentation on Chapter 3 of *The Civilized Engineer*: _____
	    Reviewer: _____
	• Presentation on Chapter 4 of *The Civilized Engineer*: _____
	    Reviewer: _____
	• Presentation on Chapter 5 of *The Civilized Engineer*: ___Ryan Aguayo Padilla_
	    Reviewer: _____
	• Presentation on Chapter 6 of *The Civilized Engineer*: ___Ulric Ibanez___
	    Reviewer: _____

Thursday October 16	• *View "Figures and Tables"* • *View "Technical Reports"* • *View "Fragments"*

WEEK NINE

Tuesday October 21	• Draft of Progress Report due to Discussion Board today.
Thursday October 23	• Peer Review of Progress Report due back to Discussion Board.

WEEK TEN

Tuesday October 28	• Final Progress Report due today.
	• Presentation on Chapter 7 of *The Civilized Engineer*: __Danny Luong__
	    Reviewer: _____
	• Presentation on Chapter 8 of *The Civilized Engineer*: ___Maduabuchi Ibeh___
	    Reviewer: _____
	• Presentation on Chapter 9 of *The Civilized Engineer*: ___Justin Munoz___
	    Reviewer: _____
	• Presentation on Chapter 10 of *The Civilized Engineer*: __Khoa Khuong____
	    Reviewer: _____
	• Presentation on Chapter 11 of *The Civilized Engineer*: __Cosme Reyes__
	    Reviewer: _____
	• Presentation on Chapter 12 of *The Civilized Engineer*: __Edison Choi___
	    Reviewer: _____
	• Presentation on Chapter 13 of *The Civilized Engineer*: __Jessica Indihar__
	    Reviewer:

	• Presentation on Chapter 14 of *The Civilized Engineer*: __Sergio Martinez___
	     Reviewer: _____
	 • Presentation on Chapter 15 of *The Civilized Engineer*: __Andrew Hammen____
	     Reviewer: _____
	 • Presentation on Chapter 16 of *The Civilized Engineer*: _Brian Lockler__
	     Reviewer: _____

Thursday October 30	• Turn in **Response Journal #5** on a subject from the news that may pose an ethical problem for engineers. Summarize the subject, explaining how it poses an ethical problem. Provide a URL or news source. • ***View "Punctuation Rules"*** • ***View "Run-Ons"***
WEEK ELEVEN	

Tuesday November 4	• Draft of Description of a Technical Process or Mechanism due to Discussion Board today.
	 • Presentation on Chapter 17 of *The Civilized Engineer*: __Gregory Bohuslav__
	     Reviewer: _____
	 • Presentation on Chapter 18 of *The Civilized Engineer*: __Ziyad Ben Afia__
	     Reviewer: _____
	 • Presentation on Chapter 19 of *The Civilized Engineer*: __Hannah Kim___
	     Reviewer: _____
	 • Presentation on Chapter 20 of *The Civilized Engineer*: Eric Estrada
	     Reviewer: _____
	 • Presentation on Chapter 21 of *The Civilized Engineer*: __ Michael Dinh ___
	     Reviewer: _____

Thursday November 6	• **Peer Review of draft Description of a Technical Process or Mechanism due back to Discussion Board today.**
WEEK TWELVE	

Tuesday November 11	• **Final Description of a Technical Process or Mechanism due today.**
	 • **Work on Presentations**
	 • Presentation on Chapter 22 of *The Civilized Engineer*: ____Anthony Nasser_____
	     Reviewer: _____
	 • Presentation on Chapter 23 of *The Civilized Engineer*: _____
	     Reviewer: _____

Thursday November 23	
WEEK THIRTEEN	
Tuesday November 18	Individual Technical Presentations.
Thursday November 20	
WEEK FOURTEEN	
Tuesday November 25	Individual Technical Presentations.
Thursday November 27	NO CLASS
WEEK FIFTEEN	
Tuesday December 2	• Individual Technical Presentations. • Posters for engineering students due.

Thursday December 18	Portfolio due. Meet in classroom from 11:00 AM – 2:00 PM.