# SYLLABUS

## SYST 489 - Senior Seminar

# Fall 2013

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| **Professor:** | Dr. Peggy Brouse |
| **Assignment Submission:** | Blackboard usage is required in the class; instructions are below. *Students must use their MasonLive email account to receive important University information, including messages related to this class. See* http://masonlive.gmu.edu *for more information.* |
| **Work Phone:** | (703) 993-1502 (with voice mail) |
| **FAX:** | (703) 993-1706 |
| **E-mail:** | pbrouse@gmu.edu |
| **Office:** | GMU:  Engineering Building - Room 2215 |
| **Office Hours:** | Monday 2:00 p.m. – 4:00 p.m. and by appointment |
| **Course Description:** | This course is designed to introduce the students to several important topics in systems engineering, provide additional experience to the students in writing and giving presentations, and obtain feedback on the curriculum for the B.S. in Systems Engineering.  Several lectures will be devoted to ethics in systems engineering.  Writing and making presentations for systems engineering will also be covered early in the semester. Lecture series presenters will present material that is not part of the required course load to expand the horizons of the students.  Each student will write a short paper on each of these presentations.  In addition, students will work in teams to critique and redesign the curriculum in Systems Engineering.  Each group will deliver a written product and provide at least one briefing to the class.  The best critique and redesign will be presented to the faculty. |
| **Course Hours:** | Monday and Wednesday  12:00 pm – 1:15 pm in Enterprise Hall 276 |
| **Text:** | 1.  Introduction to Engineering Communication, 2d edition (2009), Hillary Hart.  Pearson Prentice Hall.  ISBN 978-0-136044208 |
| | 2.  Engineering Ethics: An Industrial Perspective (2006),   Gail Baura.  Academic Press ISBN 978-0-12-088531-2 |
| **Grades:** | On following pages |

| Topic | Lecture | Deliverables |
|---|---|---|
| Technical Writing | Hart – Chapter 1 – Engineering and Communication [22]<br>Hart – Chapter 2 – Discovering Ideas and Facts [54]<br>Hart – Chapter 3- Organizing Ideas and Facts: [27]<br>Hart – Chapter 4 – Writing: Taking Control [51]<br>Hart – Chapter 5 – Displaying Data in Written Documents [30] | **Individual:**<br>Long paper on bleeding edge technology (20 pages) in IEEE format |
| Giving Presentations | Hart – Chapter 7 – Do I Really Have to Stand Up and Talk in Front of All Those People [23] | **Individual:**<br>Bleeding Edge Annotated Outline Presentation<br>Bleeding Edge Final Presentation<br><br>**Group:**<br>Ethics Case Presentation<br>Curriculum Review Draft and Final Presentation |
| Ethics | Ethics Lecture | **Individual:** Case write-ups (every case except the one your group presents)<br><br>**Group**: Team presentation and discussion lead. |
| Curriculum Review | | **Group**: Determine subject of curriculum review<br>Brief subject<br>Interview professors, students<br>Draft review<br>Final review<br>In-class brief<br>Brief faculty |
| Technology Review | Attend speaker series lecture | **Individual:**<br>Short paper on lecture attended (3 pages) |
| Professionalism | | **Individual:**<br>Evaluated by instructor |

## Exact Grade Breakdown

| | Individual | |
|---|---|---|
| | Ethics - Writeups (5 at 2% each) | 10% |
| | Bleeding Edge Annotated Outline Presentation | 5% |
| | Bleeding Edge Paper Draft | 5% |
| | Bleeding Edge Paper | 10% |
| | Bleeding Edge Final Presentation | 5% |
| | Seminar Review Paper | 10% |
| | Professionalism | 10% |
| | **Group** | |
| | Ethics Case Presentation | 20% |
| | Curriculum Review Subject | 5% |
| | Curriculum Review Draft Presentation/Paper (2.5% each) | 5% |
| | Curriculum Review Final Presentation/Paper (7.5% each) | 15% |

**Academic Integrity**

GMU is an Honor Code university; please see the Office for Academic Integrity for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

**Writing Intensive Statement**

This course fulfills all/in part the Writing-Intensive requirement in the Systems Engineering undergraduate major. It does so through the five ethic write-ups, bleeding edge paper outline, bleeding edge draft paper, bleeding edge final paper and the seminar review paper. The bleeding edge paper will be completed through a draft/feedback/revision process. The due date for each is below; I will provide comments on each.

**Disabilities Statement**

If you have a documented learning disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with Office of Disability Services (SUB I, Rm. 4205; 993-2474;http://ods.gmu.edu) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.

**Mason Diversity Statement**

George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal growth.

An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals. Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected.

The reflection of Mason's commitment to diversity and inclusion goes beyond policies and procedures to focus on behavior at the individual, group and organizational level. The implementation of this commitment to diversity and inclusion is found in all settings, including individual work units and groups, student organizations and groups, and classroom settings; it is also found with the delivery of services and activities, including, but not limited to, curriculum, teaching, events, advising, research, service, and community outreach.

Acknowledging that the attainment of diversity and inclusion are dynamic and continuous processes, and that the larger societal setting has an evolving socio-cultural understanding of diversity and inclusion, Mason seeks to continuously improve its environment. To this end, the University promotes continuous monitoring and self-assessment regarding diversity. The aim is to incorporate diversity and inclusion within the philosophies and actions of the individual, group and organization, and to make improvements as needed.

**Student Support Resources on Campus**

Resources that you may find helpful may be found at: http://ctfe.gmu.edu/teaching/student-support-resources-on-campus/

# CLASS SCHEDULE

| Week 1> | 26 August | ♦ Background; Syllabus Review; Honor Code |
| | 28 August | ♦ Group assignments, In-class writing assignment<br>♦ **Due: IN - Information Sheet**<br>♦ **Due: IN – Honor Code** |
| Week 2> | 2 September | ♦ **Labor Day – NO CLASS** |
| | 4 September | ♦ Present past curriculum review subjects<br>♦ Writing Center Roadshow presentation – Amber Cook<br>♦ Blackboard demo |
| Week 3> | 9/11 September | ♦ Discussion of Problem Statement and Need Statement<br>♦ Lecture Hart, Chapter 1<br>♦ Lecture: EVMS<br>♦ Review Research Paper Info sheet<br>♦ SEOR Goals for Written Communication<br>♦ WAC Review Rubric<br>♦ Seminar Review Paper info sheet<br>♦ Ethics Case Paper info sheet |
| Week 4> | 16 September | ♦ **Group work day**<br>♦ Group: 5 min presentation of curriculum review subject |
| | 18 September | ♦ **Due: G- Curriculum Review Subject - Presentation**<br>**G - Curriculum Review Subject - Annotated Outline** |
| Week 5> | 23/25 September | ♦ Lecture Hart, Chapter 2 and 3<br>♦ **Due: G – Ethics – 3 Choices of Group Due** |
| Week 6> | 30 September/<br>2 October | ♦ Review ABET Objectives and Outcomes<br>♦ Lecture Hart, Chapter 4 |
| Week 7> | 7/9 October | ♦ Lecture Hart, chapter 5<br>♦ Individual: 5 min presentations on bleeding edge paper (annotated outline) |
| Week 8> | 15/16 October | ♦ **NO CLASS ON MONDAY; MONDAY CLASSES MEET ON TUESDAY**<br>♦ Individual: 5 min presentations on bleeding edge paper (annotated outline)<br>♦ **Due: IN - Bleeding Edge Topic - Annotated Outline - Presentation**<br>**IN - Bleeding Edge Topic - Annotated Outline - Paper** |
| Week 9> | 21 October | ♦ Lecture: Ethics |
| | 23 October | ♦ **Group work day on Ethics Cases and final paper** |
| Week 10> | 28 October | ♦ Group Presentation: Ethics Case 1<br>♦ **Due: G - Ethics Case Group 1 Materials**<br>**IN - Ethics Writeup 1** |
| | 30 October | ♦ Group Presentation: Ethics Case 2<br>♦ **Due - G - Ethics Case Group 2 Materials**<br>**IN - Ethics Writeup 2**<br>**IN - Bleeding Edge Paper Draft - Paper** |

| Week 11> | 4 November | ♦ **Group work day on Curriculum Review** |
| | 6 November | ♦ Group Presentation: Ethics Case 3 |
| | | ♦ **Due - G - Ethics Case Group 3 Materials** |
| | | **IN - Ethics Writeup 3** |
| Week 12> | 11 November | ♦ Group Presentation: Ethics Case 4 |
| | | ♦ **Due - G - Ethics Case Group 4 Materials** |
| | | **IN - Ethics Writeup 4** |
| | 13 November | ♦ Group Presentation: Ethics Case 5 |
| | | ♦ **Due - G - Ethics Case Group 5 Materials** |
| | | **IN - Ethics Writeup 5** |
| Week 13> | 18/20 November | ♦ Groups (some Monday, some Wednesday): presentation of curriculum review draft |
| | | ♦ **Due: G - Curriculum Review Draft – Presentation** |
| | | **G - Curriculum Review Draft - Paper** |
| Week 14> | 26 November | ♦ **Group work day on Curriculum Review** |
| | 28 November | ♦ **THANKSGIVING – NO CLASS** |
| Week 15> | 2 December | ♦ Group: Presentation to faculty on curriculum review (everyone attends)> will be coordinated with SYST490 presentations to faculty |
| | | ♦ **Due: G - Curriculum Review Final - Presentation** |
| | | ♦ **G - Curriculum Review Final – Paper** |
| | 4 December | ♦ **Work day on Bleeding Edge Paper** |
| Week 16> | 9 December | ♦ Individual (some Monday, some Wednesday): Presentations of bleeding edge paper |
| | 11 December | ♦ **Due: IN - Individual Evaluation of Team Members** |
| | | **IN - Individual Seminar Review Paper** |
| | | **IN - Bleeding Edge Final - Presentation** |
| | | ♦ **IN - Bleeding Edge Final - Paper** |

# How to Access Blackboard?

- Go to   https://mymasonportal.gmu.edu
- Login to myMason

    - ♦ Enter ID and password

        Students need a Mason ID and password to login. Their Mason ID is their Mason mail user name (e.g. the Blackboard ID for jdoe@gmu.edu would be jdoe)

        If you do not know your Mason mail user name, go to http://masonlive.gmu.edu/  and click on "Account Set-up Checklist" icon, follow the steps.

- Click on the Course tab
- Choose this course from the Course List
- All assignments have due dates and submissions after the due date/time will not be possible, since Blackboard will automatically block "submit my homework" option.
- From time to time, Blackboard works too slowly. Especially from a dial-up internet connection, Blackboard access may not be so efficient all the time; students are encouraged to submit their work earlier than the deadline.
- If you experience any problem while accessing/using Blackboard, please. send an e-mail to Dr. Brouse, pbrouse@gmu.edu