

ENES 216: Flexus Seminar IV

Spring, 2014

Wednesdays, 4:00 – 5:15 pm

PHY 1201

Instructor Information

INSTRUCTORS:	Dr. Paige Smith	Candice Staples
OFFICE:	M, W-F, 1131 Glenn L. Martin Hall Th, 0110 Easton Hall	1131 Martin Hall (Mon-Th) 0110 Easton Hall (Tues-Wed)
OFFICE HOURS:	Th 10-11 or by appointment	12:00 pm – 3:00 pm
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Course Description

This course is designed to assist you as you continue your path to becoming a successful and well-rounded engineer. You will be provided with information that will assist your success both personally, academically and professionally. This course will focus on:

1. Enhancing professional and personal development
2. Developing self-confidence and self-efficacy in academic and technical ability, and encouraging self-awareness
3. Identifying and employing strategies and skills for academic and professional success
4. Developing career commitment through networking, mentoring, and role models
5. Developing awareness of issues of diversity, specifically gender diversity

Course Objectives

Flexus, specifically through this seminar, centers on the following learning outcomes. With successful completion of this course:

1. Students will expand upon their decision to major in engineering at UMD.
2. Students will enhance their understanding of the social relevance of engineering through research activities that apply classroom learning to social, environmental, and technical needs.
3. Students will improve skills essential to the study of engineering through practice in group processes and interpersonal communication.
4. Students will continue to increase their awareness of campus resources and support services.
5. Students will increase their awareness of issues related to women in the field of engineering by
 - Sharing stories and engaging in conversations with science and engineering role models regarding their personal experiences in academia and industry,
 - Exploring diversity and multiculturalism,
 - Examining their values regarding particular multicultural and gender-related issues.
6. Students will synthesize and apply new knowledge and skills through directed self-reflection and group activities.

Course Policies

Participation

Active participation is highly valued. Students should let the instructors know beforehand if they expect miss to class. *If a class is missed, students should meet with instructors to discuss any missed material.*

Missed/Late Assignments

Students are expected to turn in all assignments, journals, papers and projects at the beginning of class on the date due or it will be considered late. If you plan to miss a class, it is your responsibility to turn in the assignment before the class in person (i.e., during office hours). There will be a 10% point deduction from the assignment for each day it is late.

Academic Integrity

The University of Maryland has a nationally recognized Honor Code, administered by the Student Honor Council. This code sets standards for academic integrity for all undergraduate and graduate students, and you are responsible for upholding these standards in this course. It is very important for you to be aware of the consequences for cheating, fabrication, facilitation, and plagiarism. For more information visit: <http://www.shc.umd.edu>. Students who engage in academic dishonesty in this course will receive no points for the assignment, and will be reported to the Honor Council and Office of Judicial Programs for further action. *There will be no warnings. Remember, it is never worth it!*

Religious Observances

Absence due to religious observance will not be penalized. However, it is the student's responsibility to notify the instructors within the first three weeks of class regarding any absence(s) for the entire semester.

Persons With Disabilities

Students with a documented disability should inform the instructors as soon as possible if academic accommodations are needed. Accommodations for individuals with disabilities can be arranged through the Disability Support Service (DSS), a division of the University Counseling Center. Please call 301.314.7682, e-mail dissup@umd.edu, or visit the Shoemaker Building for more information.

Multicultural Statement

The instructors of this course are committed to creating an open and accepting environment in which diversity, opinions, unique perspectives, and others' worldviews are respected.

Special Accommodations

Any student with special needs or circumstances (work conflicts with outside activities, personal issues, etc.) should feel free to meet with the course instructors during office hours to discuss accommodations and/or special circumstances.

Limits to Confidentiality in the Classroom

While receiving instruction, advising, or other services at the University, Maryland state law requires advisors/educators/employers to report any incident of past or current child abuse or neglect to Child Protective Services **and** to the University President's Designee, the University's

Chief of Police. In addition, if an educator has reason to believe that a vulnerable adult (an adult who lacks the physical or mental capacity to provide for the adult's daily needs) over the age of 18 is in danger, the educator is required to make a report to law enforcement authorities. Health professionals, psychologists, psychotherapists, counselors and mental health professionals are not required to report child abuse neglect to the President's Designee, but are required by law to make reports to Child Protective Services.

Evaluation Process

Coursework	Total Possible	Due Date
Engagement Log	225 points	5/1
Special Topics Presentation	175 points	4/15 or 4/22
Multicultural Challenge	150 points	5/1
Final Reflection Paper	150 points	Final Exam Time (TBA)
Journal Entries	2 @ 100 points	2/18, 4/1
Participation/Professionalism	100 points	--
TOTAL POINTS POSSIBLE	1000 points	

*Extra Credit (EC) of up to 25 points will be awarded to those who participate in service for more than 4 hours.

Grading Scale

In order to succeed in this class, all assignments must be completed. The following grading scale will be used:

- 900 – >1000 A
- 800 – 899 B
- 700 – 799 C
- 600 – 699 D
- <599 F

Evaluation Criteria

Engagement Log

Refer to the handout for the full description. The engagement log is designed to provide “beyond the classroom” experiences necessary to develop well-rounded engineering students. Mentoring and role modeling experiences have been shown to enhance self- confidence and self-efficacy with respect to engineering.

Engagement Logs are due via Email by May 1.

One component of the engagement log is service outreach related to engineering. Three opportunities available through WIE are:

1. Girl Scout Engineering Saturday – Saturday, March 28, 2015, 8:30am – 1:30pm
2. WIE DREAM Conference – Saturday, February 14, 2015, 9:00am – 2:30pm
3. Keys To Empowering Youth (KEYS) – Saturday, April 11, 2015, 9:00am – 3:00pm
4. SWE Discover Engineering High School Conference – Saturday, April 26, 8:00 am - 1:30 pm

Please let Dawn Ginnett know if you are planning to volunteer for events #1 or #3 and state that you are in Flexus as soon as possible at dginnett@umd.edu. *Note: there are limited openings for Flexus volunteers, and all volunteers for these activities are expected to have an interest in working with a middle school age-group, be enthusiastic and make sure the students are engaged.*

With 5 hours of service you will earn the full 125 points available; however, up to 25 extra credit points are possible if you serve for more than four hours (10 points/hour). *If you volunteer for the DREAM Conference beyond four service hours, then you can receive up to 50 extra points (10 points/hour). Please submit an online volunteer form to volunteer for the DREAM conference ASAP. The form can be found at: <http://www.wie.umd.edu/dream>. Bria Barry at bmcelroy@umd.edu is the coordinator for this event. **After attending the service outreach activity, you must email Candice with the name of the event, the coordinator's name, and the date and hours you worked. You will not be given credit for this assignment unless you email this information.***

Recruitment Event

These events are important in attracting first year women engineers, as well as new members of Flexus. All of you are the ideal representative for the Clark School and UMD in attracting these students. **To volunteer for an event, you should sign up with Candice before the event. A sign-up list will be available to you during the first class. Opportunities:**

- 1. Flexus overnight and open house: Friday, Feb 13, 2014, 5:30pm**
- 2. Two Women in Engineering (WIE) Preview Programs: Thursday, March 27, 2014, 5-7 pm or Thursday, April 3, 2014, 5-7 pm (times are subject to slight changes).**
- 3. Tele-counseling: Training last week of February, calls to take place the week of March 3rd and March 10th from 7-8:30 pm.**
- 4. Writing postcards on behalf of WIE due by March 28 (turn in to Bria Barry in 1131UU Martin Hall)**

Special Topics Presentation

You will prepare an 8-10 minute presentation on a topic of your choosing not related to ENES216. You must pose the topic in the form of a question and it must relate to any current research in your engineering field or area of interest in STEM (science, technology, math, and engineering).

Topics must be approved by Candice by March 11 on Canvas. You will present in teams of two or three and will present on 4/22. Presentations should be uploaded into Canvas by the start of class.

You should include at least **five sources** that you find on UMD's Library Research Port from peer-reviewed journals (ideal search terms: STEM, engineering, etc.), reputable websites (e.g., not Wikipedia), or other scholarly articles and writings. The presentation should synthesize what you learned from your research to answer the question that you posed.

Your presentation should include the following:

- **Question:** A statement of your question with an explanation of why it's important and why you personally chose it (not more than 1-2 slides)

- **Research Review:** A review of your five sources stating what you found that helps answer your question (3-4 slides)
- **Conclusion:** A synthesis of what you learned from your five sources to answer the question that you posed (1-2 slides)
- **Reflection:** A personal reflection of your related opinion and how this question/answer affects you as an engineering student (not more than 1 slide)
- **References:** Cite your 5+ sources

Multicultural Challenge

Diversity and multiculturalism is a cornerstone of UMD and an important focus of our program and class. Attend one event or lecture presented by a student group or campus office that focuses on a topic of diversity or multiculturalism. For example, the Black Student Union, the Muslim Student Association, the Asian Student Union, and the Latino Student Union are student groups that host a number of these events throughout the semester. *The Diamondback* or the Stamp Student Union website will be helpful in your search. Submit a 1/2-page reaction summarizing your experience and your reactions to how it felt to attend such an event. *Note: This event is intended to help you step outside of your "comfort zone." You should attend an event hosted by a group that is different from a group with which you identify.* Due: May 1st.

Final Reflection Paper

You will write a 4-5 page (double-spaced) paper reflecting on your personal cumulative experience over the past 4 semesters as a UMD woman engineer.

The paper should include: How would you describe yourself when you first came to UMD almost 2 years ago? How have you changed and how are you the same now? Have your goals changed? Why or why not? How have you changed as a leader and what leadership roles have you taken on over the past 2 years? What about your ability to facilitate? How has it changed over the past year and what can you do differently? Have your views on gender and culture changed? How so? How comfortable do you feel in your decision to be an engineer? Has this changed, why or why not? What are the most important things you have learned and what advice would you give to new freshmen or sophomores? You may also include any other reflection you wish to make on the past 2 years.

This will be due during our final exam time.

Journal Entries

Journals are an expression of your feelings and reactions to academic and social experiences. Many journals will focus on the weekly reading assignment. You will be required to submit 2 journal entries electronically on Canvas. Each journal is due before class begins, and specific topics will be posted on Canvas the week before they are due. Your journal should be about 1-page double-spaced in length.

Participation/Professionalism

1. This course will be interactive, combining lecture, reading, discussion, and activities. Please come prepared to each class, including reading the text ahead of time, brainstorming comments and/or questions, and being prepared to answer questions posed by instructors or your classmates. Discussions of your personal experiences and opinions are important. You are encouraged to make suggestions about your needs as a

- student, and to share ideas that you believe may make the class more conducive to your learning style.
2. Professionalism entails coming to class on time, being attentive in class (vs. sleeping), completing individual assignments, and being respectful of your instructors, guest speakers, and other class members. Treating others with respect includes respecting diverse opinions, paying attention, listening when others are speaking, and allowing everyone a chance to voice opinions and comments. Confidentiality is expected as personal experiences and opinions will be shared often.

Readings:

Reading #1:

- a. Babcock, L. & Laschever, S. (2003). Women Don't Ask: Negotiation and the Gender Divide. Introduction. Access from the Princeton University Press website at:
<http://press.princeton.edu/chapters/i7575.pdf>

Reading Set #2:

Women's leadership in STEM – Barriers to Participation (posted in Canvas)

Reading #3:

Implicit Bias Chapter, AAUW

Reading #4:

Chapters 7, 9 and 11, Lean In

Course Schedule

Week	Date	Topic	Assignment (Due for class)
1	1/28	Welcome & Syllabus Overview -Discussion: Privilege -Discussion: The Role of Socialization http://www.youtube.com/watch?v=llGyVa5Xftw	
2	2/4	<i>No Class</i>	
3	2/11	Negotiations Exercise & Discussion	Reading #1
4	2/18	Culture & Leadership Building your strengths into your resume.	Journal #1 Reading #2
5	2/25	<i>No Class</i>	Topic for Special Topics Presentations must be approved by this date
6	3/4	Women & Leadership Jane Fines, <i>International & Leadership Programs</i>	
7	3/11	<i>Combine 1st & 2nd Years Bystander Awareness Training</i>	Topic for Special Topics Presentation Due on Canvas
8	3/18	<i>Enjoy your Spring Break ☺</i>	
	3/24	Gender & Multicultural Perspectives Lean In Discussion *Meeting in Martin Hall 0312 (Computer Lab)	Reading #3 <i>Implicit Bias</i> Chapter Reading #4 <i>Lean-In</i> , Ch. 7, 9 & 11
9	4/1	<i>Mini-Career Fair</i>	Journal #2
10	4/8	Networking Event – Graduate Students *Location: AVW 2460	
11	4/15	<i>Guest Speaker: Bell Helicopter</i>	
12	4/22	Special Topics Presentations (if needed)	
13	4/29	Closing (4:00-6:00pm w/ first-years) *Meet in 1107 & 1111 Kim Building (Kay Boardrooms)	Multicultural Challenge Engagement Logs
14	5/6	<i>No Class</i>	
15		Reflections Due during Final Exam Time. No Meeting	Final Reflection Paper

Please note that this schedule is tentative and the instructors may alter it as needed. Any changes will be announced in class or via e-mail.