ENES 115 0101: Flexus Seminar I
Fall 2013
Wednesdays, 4-5:30pm

Instructor Information
INSTRUCTOR: Nicole Hollywood
OFFICE: 3106D J.M.Patterson
OFFICE HOURS: By Appointment
OFFICE PHONE: 301.405.3994
EMAIL: nlholly@umd.edu

TEACHING ASSISTANTS: Mr. Max Frantz (ENES100)  Ms. Merily Horwat (ENES102)
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Course Description
This course is designed to assist you in becoming a successful student in engineering. You will be provided with information that will assist your success 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
3. Identifying and employing strategies and skills for academic and professional success
4. Developing career commitment through networking, mentoring, and role models

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 by exploring career possibilities, personal preferences, and academic expectations.
2. Students will improve skills essential to the study of engineering through training in group processes, interpersonal communication, and UMD technology competency.
3. Students will increase their awareness of campus resources and support services, including
   • Academic support services,
   • The Women in Engineering Program, Society for Women Engineers and other student organizations addressing gender issues,
   • Personal and social support services.
4. 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 personal learning preferences and ways of knowing,
   • Examining their values regarding particular college issues, such as safety, health, personal and social identity, “chilly climates” and social connection.
5. Students will synthesize and apply new knowledge and skills through individual reflection and group activities.
Course Policies

Attendance
Regular attendance and participation in this class is the best way to grasp the concepts and principles being discussed. However, in the event that a class must be missed due to an illness, the policy in this class is as follows:

1. For every medically necessary absence from class (lecture, recitation, or lab), a reasonable effort should be made to notify the instructor in advance of the class. When returning to class, students must bring a note identifying the date of and reason for the absence, and acknowledging that the information in the note is accurate.
2. If a student is absent more than 3 time(s), the instructor may require documentation signed by a health care professional.
3. If a student is absent on days when tests are scheduled or papers are due [or other such events as specified in the syllabus] he or she is required to notify the instructor in advance, and upon returning to class, bring documentation of the illness, signed by a health care professional.

Missed/Late Assignments
Students are expected to turn in all assignments, journals, papers and projects at the beginning of the 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 or an alternate arranged time). 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 Office of Student Conduct 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 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 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.
Evaluation Process

A total of 1000 points will be allocated as follows:

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Maximum Points</th>
<th>Total Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Look Fair</td>
<td>50 points</td>
<td>50 points</td>
</tr>
<tr>
<td>Journal Entries</td>
<td>2 @ 50 points</td>
<td>100 points</td>
</tr>
<tr>
<td>Kolb Inventory</td>
<td>100 points</td>
<td>100 points</td>
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<tr>
<td>ONet Worksheet</td>
<td>50 points</td>
<td>50 points</td>
</tr>
<tr>
<td>Group Project: Parts List and Budget</td>
<td>10 points</td>
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<tr>
<td>Group Project: Preliminary Project</td>
<td>40 points</td>
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<tr>
<td>Group Project: Final Project</td>
<td>150 points</td>
<td>200 points</td>
</tr>
<tr>
<td>Service Outreach</td>
<td>200 points</td>
<td>200 points</td>
</tr>
<tr>
<td>Participation: Community Social Event</td>
<td>50 points</td>
<td>--</td>
</tr>
<tr>
<td>Participation: Networking Event</td>
<td>50 points</td>
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<tr>
<td>Participation: Overall Class</td>
<td>200 points</td>
<td>300 points</td>
</tr>
<tr>
<td><strong>TOTAL POINTS POSSIBLE</strong></td>
<td>--</td>
<td>1000 points</td>
</tr>
</tbody>
</table>

*Extra Credit (EC) of up to 15 points will be awarded for participating in service for more than 4 hrs.

**Extra Credit (EC) of up to 15 points will be awarded during the final project. Details TBA.

Grading Scale

In order to pass this class, all assignments must be completed. **Please note that in this session of ENES115, no plus or minus grades will be given.**

The following grading scale will be used:

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

Evaluation Criteria

Journal Entries

Journals are an expression of your feelings and reactions to academic and social experiences. You will be required to submit two journal entries electronically on Canvas. Each journal is due by 4pm on Wednesdays, and specific topics will be posted on Canvas the week before they are due. Length: approximately two pages double-spaced. Margins should not be adjusted and should be no more than 1 inch of the page.

First Look Fair

Involvement in student organizations is an important aspect of being a well-rounded UMD student. You are to attend the First Look Fair, which will be held September 18th and 19th from 10am to 3pm. Visit at least three student organizations that are of interest, record the name of the organization and the organization contact information. Take a picture or video of yourself next to what you feel is the most interesting group/organization/activity you find at the fair. Post the picture to the Canvas Discussion board on the First Look Fair along with a comment as to why that was your favorite. Your comment may be informal but should be in complete sentences. Turn in your list of three student organizations via Canvas as a word document by the due date for the assignment.
Service Outreach

Service outreach is part of the experience necessary to make yourself a well-rounded engineering student. Mentoring and role modeling experiences have been shown to enhance self-confidence and self-efficacy with respect to engineering. You are required to attend one service outreach activity at any time throughout the semester. Opportunities through WIE are:

- Girl Scout Engineering Saturday: Saturday, October 19, 830am-2pm (on campus)
- Society of Women Engineer’s STEM Outreach Expo: Saturday, October 26, time TBA (Baltimore MD)
- KEYS: Saturday, November 16, 830am-4pm (on campus)

Please let Vanessa Medley know if you are planning to volunteer for one of the events above and state that you are in Flexus as soon as possible at vmedley@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 4 hours of service you will earn the full 200 points available; however, **up to 15 extra credit points are possible if you serve for more than four hours**. After attending the service outreach activity, you must email Ms. Hollywood with the name of the event, the coordinator’s name and email address, and the date and hours you worked. You will not be given credit for this assignment unless you email this information. The email MUST be received by November 20, 2012.

Group Project

You will work in small teams (4-5 members, 10 teams total) to present a 3D version of a mascot for FLEXUS to a panel of distinguished judges. This project will include three assignments: a parts list and budget, a preliminary project and the final project presentation. The parts list and budget will require the group to turn in exactly what will be needed to create their mascot within their total budget, with a breakdown of costs expected. The preliminary project will be a visual representation of the 3D version of the mascot, using a design tool of the teams choice (we will review CAD/Solidworks as a group). The final project will include a verbal presentation of the mascot on behalf of the team.

Each team will create a distinct representation of a FLEXUS mascot that should also embody the personality of the group using the tools within the Keystone Labs. You will be trained on each of these tools, have time to practice with the tools as well as time in the labs during one class session to work on your mascot. Teams will be announced at our Week 5 session. Details and rubrics will be provided closer to due dates for the project. **Up to 15 extra credit points will be available to all team members of teams who turn in, at the final presentation, both a mascot AND a logo (which would be a 2D representation).**

Some things to consider when building your mascot and completing this project:

1. **BUDGET**: Each team will have $50 to spend. But, you will be unable to shop yourselves. So, you must research your materials and cost, being as thrifty as possible.
2. **PARTS**: Keep in mind that you may make mistakes while creating your project. If you need more materials after the due date for the Parts List and Budget, you will be ‘charged’ double for item(s).
3. **PERSONALITY**: You must be able to present to the judges how the mascot reflects the personalities within your group. (For example, perhaps your mascot is a turtle who has orange painted nails because everyone in the group loves the color orange.)
4. **PRESENTATION**: The judges will want to hear why the mascot represents Flexus for each group. Questions to possibly answer as you plan your mascot: What does Flexus mean to you? How would you attract new students to the program?
5. **JUDGING**: Esteemed Clark School and Women in Engineering faculty, administration and staff members will be invited to judge your mascots. One will be chosen!!
6. **HAVE FUN!** The judges and instructors will want to see ingenuity as well as whimsy.
Participation
This course will be interactive, combining lecture, reading, discussion, and activities. Please come prepared to each class. Active participation is highly valued. Discussions of your personal experiences and opinions are important. You are encouraged to make suggestions about your needs as a first-year student, and to share ideas that you believe may make the class more conducive to your learning style. There will be periodic evaluations of the class content and you are strongly encouraged to comment honestly.

Participation: Community Social Event
Submit via the Canvas Course site by no later than 12/4 the name of at least one FLEXUS or FLEXUS and VIRTUS event that you have attended. These can be posted as soon as you attend.

Participation: Networking Event- Faculty Edition
Attendance at and participation in the networking event is not only expected but is expected at a professional level. You should dress as if this were a networking event for employers with whom you wished to work in the future.

Participation: Professionalism
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.
Course Schedule

*Please note that this schedule is tentative and the instructor may alter it as needed. Any changes will be announced in class or via Canvas. Please check your email at least once a day!*

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignment (Due for class)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9/4</td>
<td>Syllabus Overview, Community Expectations, Community Building and Entrance Survey</td>
<td></td>
</tr>
</tbody>
</table>
| 2    | 9/11 | Community Building, Getting Involved  
  **1116 JMPatterson**  
  (4pm-4:45pm)  
  ENES100 students: Solidworks/CAD  
  **1215 JMPatterson**  
  ENES102 Practice Topic: Forces, Vectors  
  **1116 JMPatterson**  
  (4:45-5:30) | Journal #1 |
| 3    | 9/18 | Community Building, Flexus Dialogue #1  
  *Kolb Inventory Exercise Distributed*  
  (4pm-4:45pm)  
  ENES100 Practice Topic: Fluid Mechanics  
  ENES102 Practice Topic: Dot Product, Cross Product & Centroids  
  (4:45pm-5:30pm) |  
| 4    | 9/25 | Community Building, Working in Groups  
  **1116 JMPatterson**  
  (4pm-4:45pm)  
  ENES100 Practice Topic: Electronics  
  **1215 JMPatterson**  
  ENES102 Practice Topic: 2D Equilibrium and Free Body Diagrams  
  **1116 JMPatterson**  
  (4:45-5:30) | Kolb Inventory |
| 5    | 10/2 | Time Management Seminar provided by:  
  Dr. Kimberly Bethea, *Learning Assistance Service*  
  *Announce Project Teams*  
  **Introduction and Explanation of Common Ground You IDs* | |
| 6    | 10/9 | Community Building, ONet Exercise provided by:  
  Dr. Paige Smith, *Women in Engineering* and  
  True Colors provided by:  
  Mr. Ramsey Jabaji, *International and Leadership Programs*  
  *Optional ENES102 Review Session (after class): BY RSVP* | ONet Worksheet |
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<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignment (Due for class)</th>
</tr>
</thead>
</table>
| 7    | 10/16* | First Names A-J: Basic Tools Practice Session #1  
**1215 JMPatterson**  
First Names K-Z: Basic Tools Practice Session #1  
**1116 JMPatterson**  
(4pm-4:45pm)  
Same Groups: Basic Tools Practice Session #2  
**1116 & 1215 JMPatterson**  
(4:45pm-5:30pm)                                                                                                                                 |                                                                            |
| 8    | 10/23* | Last Names A-L: Community Building, Flexus Dialogue #2  
**1215 JMPatterson**  
Last Names M-Z: Community Building, Flexus Dialogue #2  
**1116 JMPatterson**  
(4pm-4:45pm)  
*Introduction and Explanation of Networking Event  
ENES100 Practice Topic: Basic Tools Practice Session #3  
**1116 JMPatterson**  
ENES102 Practice Topic: Stress, Strain, Shear and Safety Factor  
**1215 JMPatterson**  
(4:45pm-5:30pm) | Project Parts List and Budget |
| 9    | 10/30  | Common Ground YouIDs  
**Easton, Oakland, etc (Rooms TBD)**                                                                                                                                                                  | Preliminary Project Drawing |
| 10   | 11/6*  | In Assigned Teams: Lab Use for Team Project  
**TBA: 1116 JMPatterson and 1215 JMPatterson**  
(4pm-4:45pm)  
ENES100 Practice Topic: Debugging Your Hovercraft  
**1116 JMPatterson**  
ENES102 Practice Topic: Trusses  
**1215 JMPatterson**  
(4:45pm-5:30pm)                                                                                                                                 | Journal #2                  |
| 11   | 11/13  | Community Building, Networking Event: Faculty Edition  
*Optional ENES102 Review Session (after class): BY RSVP                                                                                                                                               |                                                                            |
| 12   | 11/20  | Final Project Presentations                                                                                                                                                                           | Service Outreach Due 11/22   |
| 13   | 11/27  | **No Class- Happy Thanksgiving! 😊**                                                                                                                                                                  |                                                                            |
| 14   | 12/4   | Closing, Course Evaluations                                                                                                                                                                           |                                                                            |
| 15   | 12/11  | Optional Review Sessions: BY RSVP                                                                                                                                                                     |                                                                            |

*Please wear closed-toe shoes with your hair tied back on 10/16, 10/23 and 11/6 when we will be using tools in the workshop. This is a safety requirement for using the equipment.