ENGR 1000- Introduction to Engineering Syllabus

Fall, 2013 Wednesday 2:00-3:50 pm Room: Brewster B206

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Office Hours: M, W 12-2 pm

Text: Studying Engineering: A Road Map to a Rewarding Career, 4th Edition By Raymond B. Landis

Purpose of Course: To enhance your success as a student and as a person, and to prepare you for your chosen field of engineering.

Grading: The course will be based on the following:

- 1. Attendance & class participation (20%)
- 2. Weekly reading quizzes (20%)
- 3. Grade on resume. (30%)
- 4. Grade on semester project. (30%)

| Grade | Quality Points | 10-Point |
|-------|----------------|----------|
| | | Scale |
| А | 4.0 | 94-100 |
| A- | 3.7 | 90-93 |
| B+ | 3.3 | 87-89 |
| В | 3 | 83-86 |
| B- | 2.7 | 80-82 |
| C+ | 2.3 | 77-79 |
| С | 2 | 73-76 |
| C- | 1.7 | 70-72 |
| D+ | 1.3 | 67-69 |
| D | 1 | 63-66 |
| D- | .7 | 60-62 |
| F | 0 | Below 60 |

Attendance & **Class Participation**: Attendance is a large part of your grade. Past experience shows that those who don't attend class, do very poorly in engineering.

Reading Quizzes: Quizzes will be posted on Blackboard every Friday. You will have until Sunday night (midnight) to complete the quiz.

Resume: You will begin your engineering resume in this course. This resume will be updated every year as you gain knowledge and experience. The Career Development Leadership Center, located in 239 S&T is a great resource for help with your resume.

Semester Project: See attachment and start as soon as possible!

NOTE: YOU ARE REQUIRED TO BRING YOUR TEXT TO EVERY CLASS!

Accommodations: If you have a disability that may affect your academic experience and are seeking accommodations, it is your responsibility to inform Disability Support Services as soon as possible. Please contact them to arrange for disability related accommodations.

ASSIGNMENTS

Class #1—August 21

Group Assignments Getting to Know You Attitude Survey Class Discussion:

Purpose of course Go over syllabus, resume, final project

Reading Quiz: Prologue and Chapter 1 (due Sunday night by 11 pm)

Class #2— August 28

Name game Class Discussion:

Define goal Strengthen commitment Develop plan of action

Homework: How important to you is the goal of graduating with a Bachelor of Science in Engineering degree? How can you make it even more important? Submit your thoughts on blackboard via your journal.

Reading Quiz: Sections 2.1-2.5

Class #3— September 4

Name Game Class Discussion: Define engineering. What is the design process? Why engineering? - Rewards and Opportunities of an Engineering Career

Homework: Prepare your statement of 'What is engineering?' Make your own top ten list of the rewards and opportunities of an engineering career. Submit on blackboard in your journal.

Reading Quiz: Sections 3.1 - 3.8

Class #4— September 11

Class Discussion: Learning Styles- Which is yours? Teaching Styles- How to learn from any type Academic Skills Survey

Homework: List the major differences between the teaching/learning process you experienced in high school and the process you are encountering here in university-level math/science/engineering classes. Post in your online journal.

Reading Quiz: Sections 2.6-2.10

Class #5— September 18

Guest Speaker: Larry Donley, Career Development Leadership Center

Hand out and go over Resume Assignment

Class Discussion: Engineering Disciplines Job Functions Employment

Reading Quiz: Sections 4.1-4.3

Class #6— September 25

Class Discussion: Getting the most from your education: Preparing for lectures Taking notes Avoiding distractions

Homework: What is one change in your education preparation that you will make to increase your learning? Be specific. Post in your online journal.

Reading Quiz: Sections 8.4-8.6

Class #7— October 2

| Class Discussion: | Academic Regulations |
|-------------------|----------------------|
| | Advising |
| | Student Conduct |

Jane and the Dragon

'If you don't like your grade, change the process.'

Homework: Online scavenger hunt.

Reading Quiz: Section 4.4-4.5

Class #8— October 9

Guest speaker: Pirate Tutoring Center

Class Discussion: Using others to help you: professors, peers, tutors

Homework: Based on the book, Jane and the Dragon, what is the dragon in your educational life? Who is the jester for you? How will you befriend your dragon? How will that affect your goal?

Reading Quiz: Sections 5.1 - 5.4

Class #9— October 16

Resumes will be collected at the end of class!

| Class Discussion: | Learning Process |
|-------------------|---------------------|
| | Time Management |
| | Preparing for tests |

Homework: Make a list of 20 items/activities that you need to do. Place each of the items into the priority matrix. Analyze your matrix (how many items are in each quadrant). Reflect on how you can move your items into quadrant 2. Post the results in your online journal.

| I Urgent and Important | II Not Urgent, Important |
|---------------------------|------------------------------|
| - | - |
| -critical activities | -important goals |
| - | - |
| - | - |
| - | - |
| III Urgent, Not Important | IV Not Urgent, Not Important |
| - | - |
| -interruptions | -distractions |
| - | - |
| - | - |
| - | - |

Reading Quiz: Section 6.1- 6.4

Class #10—October 23

Class Discussion: Learning about yourself: Myers-Briggs Stereotypes Judgments Behavior Modification

Reading Quiz: Section 6.5-6.9

Class #11— October 30

Concentration Presentations

Class Discussion: Written & Oral Communications Mental and Physical Wellness Teamwork

Homework: Read the paper, 'Stress and the College Student', which is on blackboard under Documents. Take the test on page 3 and post a reflection in your journal about ways you can cope with your stress reactions. Determine your stress score from the test on page 7 and post a reflection on what this score tells about you.

Reading Quiz: Sections 7.1-7.5

Class #12— November 6

Concentration Presentations

| Class Discussion: | Engineering Ethics- Case Studies |
|-------------------|--------------------------------------|
| | Library Research (3-4 pm)- Room 1020 |

Class #13— November 13

Concentration Presentations: ISYS- Dr. Joe Wilck (2 pm)

| Class Discussion: | Student Organizations |
|-------------------|-----------------------------|
| | Pre-professional Employment |

Class #14— November 20

Concentration Presentations

Class Discussion:

Course Assessment Student Surveys

THANKSGIVING BREAK – NOVEMBER 27-29

FINAL SEMESTER PROJECT DUE BY 5 PM ON DECEMBER 4!

Semester Project:

Design Your Process for Becoming a "World-Class" Engineering Student

Engineers design products or processes to meet desired needs. Your desired need or goal (hopefully) is to graduate with your Bachelor of Science degree in engineering. But what is the process you need to apply to be successful in achieving this goal?

This project in combination with the lecture is intended to help you design your process to success. The textbook "Studying Engineering" will be an excellent resource as well as many of the assignments and homework. As you will learn and study throughout the semester you will encounter objectives that are essential to be successful.

The final paper will a summary of your self-reflection on your education and goals. For each of the 14 objectives, you must develop a plan which indicates the following:

- a. Where are you currently on implementing these topics/objectives
- b. Where a "world-class" engineering student would want to be on each of these objectives
- c. What you need to do to move from where you are to where you want to be

By analyzing a. and b. you will be able to answer c., which will tell you your process to success! Keep in mind that your report will describe *your* process to success.

Below is the list of objectives. Use this as a template for your project:

A. Goal setting

- 1. Set your goal(s), which major/concentration to choose at ECU, time to graduation, GPA, etc.
- 2. Clarify and strengthen your commitment to your goal(s)
- 3. Set-up a "Road Map", a plan to guide you over the next years to graduation
- 4. Understand the 'essence' of engineering

B. Community Building

- 5. Build relationships, making effective use of your peers
- 6. Co-curricular activities

C. Academic Development

- 7. Navigate the ECU system, resources and academic advising
- 8. Understand teaching and learning styles and how to make the teaching/learning process work for you
- 9. Organize our learning process

D. Personal Development

- 10. Be prepared to deal with adversity
- 11. Outline what attitudes and behaviors you need to change/add to be successful

- 12. Enhance your self-awareness and improve your skills to practice academic success strategies
- 13. Manage time and tasks
- 14. Develop a high sense of personal and professional integrity and ethical behavior

Some tips to get started on the project:

- Start early, meaning now!
- Make use of a journal or use the project template, while reading the chapters of the textbook, write down notes in your journal with focus on how you would implement the topics covered to make them work for you.
- Assignments, in class-activities, and homework are aimed to accumulate material which will be very useful for your report.
- Although this will be your process, study/discuss topics with other students from the course
- Avoid copying verbatim from the textbook or other resources. You can reference to sections of the textbook, e.g., "Understanding the importance of early course preparation, as Landis [1] discusses in Chapter 4.1, will help me to implement the following changes in my attitude and behavior..."

Length of Report

The length of the report should be around 8 pages. The minimum acceptable length is 6 pages; there is no maximum page limit. Reports that contain verbatim copied passages without proper citation will receive **0 credit**. In addition, reports that contain lengthy copied passages from sources, even if they are properly cited, will be severely marked down.

Format Requirements

Your report as to be to be written in Microsoft Word or some other software program with the following specifications:

- use font styles Arial, Calibri or Times New Roman with a font size of 12
- use 1.5 line spacing
- use 1 inch margins on all sides

Your report needs to have a **cover sheet** which must include the name of the course, the title of the report, the submission date, and your name as the author.

Due on December 4!