ENGR A151 Introduction to Engineering Fall 2013

Friday 8:30-9:20 (Sec. 603), 9:30-10:20 (Sec. 604), 10:30-11:20am (Sec. 605), SSB 213, 1 credit

Instructor: Dr. Steffen Peuker

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Office Hours: Tuesday and Thursday 11am-noon, Engineering Building, Room 304

Text (required): Studying Engineering: A Road Map to a Rewarding Career, 4th Edition by

Raymond B. Landis, ISBN-10: 0-9646969-2-4

Purpose of Course:

To enhance your success and become an effective engineering/college student.

Grading: The course will be based on the following:

Grade on Individual Readiness Assurance Test (iRAT) - 30% Grade on Team Readiness Assurance Test (tRAT) - 20%

Peer evaluation will adjust tRAT grade

Homework/Assignments - 20%

Grade on Project - 30%

Attendance: Attendance is mandatory. Students must attend the section they are registered for. There will be no excused absences except for reasons mentioned in the UAA Fact Finder Student Handbook. Students missing more than two classes unexcused will not receive credit for the course. Sick days: Each student has two sick days. Students have to inform the instructor in advance or the day of the class when taking a sick day. To apply a sick day retroactively, a doctor's notice is required.

Class Participation: Regular attendance is required and active participation is expected from each student (as you will experience, this will help you in understanding the course material!).

Project: See pages 5 and 6.

Note Taking: Using a notebook or other means to document the following is required:

All notes taken in class

Your opinion of each section of the text Questions, issues, or perspectives you gained

Homework:

There will be a variety of different homework assignments, online surveys, short papers, inclass handouts, etc. which will be announced in class and/or on the course blackboard page. It is your responsibility to check the due dates of the individual assignments. **No late** submissions will be accepted. Students missing more than four homework assignments may not receive credit for the course, i.e. receiving a failing (F) grade.

E-mail Communication: You are encouraged to visit Dr. Peuker during the office hours stated at the beginning of this document. If communicating by e-mail **you need to include ENGR 151 in the subject**, otherwise the instructors reserves the right to not answer your email. Unless otherwise announced by the instructor, emails will be answered within 48 hours.

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 Disability Support Services to arrange for disability related accommodation. The DSS office is in RH 105. Their phone number and email address are available on their website, at www.uaa.alaska.edu/dss.

Academic Integrity:

Academic integrity is a basic principle, which requires that students take credit only for ideas and efforts that are their own. Cheating, plagiarism, and other forms of academic dishonesty are defined as the submission of materials in assignments, exams, or other academic work that is based on sources prohibited by the faculty member. Substantial portions of academic work that a student has submitted for a course may not be resubmitted for credit in another course without the knowledge and advance permission of the instructor. In addition to any adverse academic action, which may result from engaging in academically dishonest behavior, the University specifically reserves the right to address and sanction the conduct involved through the student judicial review procedures. Disciplinary action may be initiated by the University and disciplinary sanctions imposed against any student or student organization found responsible for committing, attempting to commit, or intentionally assisting in the commission of Student Code of Conduct 1: Cheating, Plagiarism, or Other Forms of Academic Dishonesty.

Academic dishonesty is further defined in the Student Code of Conduct. The examples provided below of actions constituting forms of conduct prohibited by the Code are not intended to define prohibited conduct in exhaustive terms, but rather to set forth examples to serve as guidelines for acceptable and unacceptable behavior. (R09.02.020)

Student Code of Conduct 1. Cheating, Plagiarism, or Other Forms of Academic Dishonesty a. using material sources not authorized by the faculty member during an examination or assignment;

- b. utilizing devices that are not authorized by the faculty member during an examination or assignment;
- c. providing assistance to another student or receiving assistance from another student during an examination or assignment in a manner not authorized by the faculty member;
- d. presenting as their own the ideas or works of another person without proper acknowledgment of sources;
- e. knowingly permitting their works to be submitted by another person without the faculty member's permission;
- f. acting as a substitute or utilizing a substitute in any examination or assignment;
- g. fabricating data in support of laboratory or field work;
- h. possessing, buying, selling, obtaining, or using a copy of any material intended to be used as an instrument of examination or in an assignment in advance of its administration;
- i. altering grade records of their own or another student's work; or
- j. offering a monetary payment or other remuneration in exchange for a grade.

Course Calendar:

The below schedule is subject to change. Changes will be announced in class and/or on blackboard. The assignments are listed when they are **due**, not when they are assigned.

NOTE: YOU ARE REQUIRED TO BRING YOUR TEXTBOOK AND YOUR NOTES TO EVERY CLASS MEETING

Class #1—Friday, August 30th

Reading Assignment: None

Activities: Student Clubs

Class #2—Friday, September 6th

Reading Assignment: Syllabus

Activities: Introduction, Jane and the Dragon

Problem Assignment: Freshmen Engineering Survey (see blackboard)

Class #3—Friday, September 13th

Reading Assignment: Chapter 1

Activities: iRAT/tRAT and application on Chapter 1

Problem Assignment: Homework #1

Class #4—Friday, September 20th

Reading Assignment: Re-read Chapter 1

Activities: Applications on Chapter 1

Problem Assignment: Homework #2

Class #5—Friday, September 27th

Reading Assignment: Chapter 2, Academic Integrity Tutorial Activities: iRAT/tRAT and application on Chapter 2

Problem Assignment: Academic Integrity Quiz (see blackboard/Assignments)

Class #6—Friday, October 4th

Reading Assignment: Chapter 3

Activities: iRAT/tRAT and application on Chapter 3

Problem Assignment: Homework #3

Class #7—Friday, October 11th

Reading Assignment: See blackboard for reading assignment

Activities: Student Success Manager

Problem Assignment: Homework #4

Peer Evaluation

Class #8—Friday, October 18th

Reading Assignment: Re-read Chapter 3

Activities: Applications on Chapter 3

Problem Assignment: Homework #5

Class #9—Friday, October 25th

Reading Assignment: Chapter 4

Activities: iRAT/tRAT and application on Chapter 4

Problem Assignment: Homework #6

Class #10—Friday, November 1st

Reading Assignment: Chapter 5

Activities: iRAT/tRAT and application on Chapter 5

Problem Assignment: Homework #7

Class #11—Friday, November 8th

Reading Assignment: Chapter 6

Activities: iRAT/tRAT and application on Chapter 6

Problem Assignment: Homework #8

Class #12—Friday, November 15th

Reading Assignment: Chapter 6

Activities: Application on Chapter 6

Problem Assignment: Homework #9

Class #13—Friday, November 22nd

Reading Assignment: Chapter 8, NSPE Code of Ethics

Video Assignment: Incident at Morales

Activities: iRAT/tRAT and application on Chapter 8, Incident at Morales, NSPE

Code of Ethics

Problem Assignment: Homework #10

Project Report is due

Class #14—Friday, December 6th

Activities: Visit of engineering professionals

Problem Assignment: Peer Evaluation

ENGR A151

Introduction to Engineering Semester Project:

Fall 2013

Design your Process for Becoming a "World-Class" Engineering/College Student Due on November 22nd

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?

Task:

For each of the following items, develop a plan that will indicate:

- a. Where a "world-class" engineering student would want to be on each item
- b. Where you are currently on each item
- c. What you need to do to move from where you are to where you would need to be to become a "world-class" engineering student

By analyzing a. and b. you will be able to answer c., which will tell you what your process to success is! Keep in mind that your report will describe <u>your</u> process to success.

Items:

1. Goal Setting

- a. Setting your goal(s), i.e., major, time to graduation, GPA
- b. Strengthening and clarifying your commitment to your goal(s)
- c. Setting up a "Road Map"—a plan to guide you over the next years to graduation
- d. Understanding the essence of engineering

2. Community building

- a. Building relationships, and making effective use of your peers
- b. Participating in co-curricular activities

3. Academic development

- a. Navigating the university system, resources and academic advising
- b. Understanding teaching styles and learning styles and how to make the teaching/learning process work for you.

4. Personal development

- a. Enhancing your self-awareness and improving your skills to practice academic success strategies
- b. Outlining what attitudes and behaviors you need to change/add to be successful
- c. Managing time and tasks
- d. Engaging in good health and wellness practices including management of stress
- e. Developing a high sense of personal and professional integrity and ethical behavior

How to get started on the project:

- Start early, meaning now!
- Make use of your notes, while reading the chapters of the textbook, always write down notes with focus on how you would implement the topics covered to make them work for you.
- Assignments, in class-activities and homework is aimed to accumulate material which
 will be very useful for your report. For this project your are explicitly encouraged to use
 what you wrote for the several homework assignments for your project.
- 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 minimum length of the report should be 8 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, your name as the author. You can find a template on blackboard in the "Project" folder.

Submission Requirements

Submit a digital copy of your report by November 22nd through blackboard (see the "Project" folder on blackboard). Only doc(x) and pdf files are accepted! Name your file in the following way:

lastname_firstname_ENGR151_Project

For example, if your name is Steffen Peuker your file name should be: peuker_steffen_ENGR151_Project

Submit a printout of your report at the beginning of class on Friday November 22nd.