

EGR 199
Engineering Futures
Fall 2013
Section 002: Wednesday 900-950 AM (RGAN 207)
Section 003: Friday 900-950 AM (RGAN 207)
Section 004: Monday 900-950 AM, (RGAN 207)

Instructor: Thomas W. Lester, Ph.D., P.E.
Professor of Mechanical Engineering
Dean Emeritus of Engineering

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Office Hours: MWF: 800-850 AM, 1100-12 noon, 100-300 PM

E-mail communication:

You are encouraged to visit me during my office hours. If communicating by e-mail, please include EGR 199 in the subject. I attempt to respond to your e-mails within 2 working days. If a more urgent response is necessary, please indicate it in the subject line of your e-mail message.

Text: (Required):

Studying Engineering: A Road Map to a Rewarding Career, 4th Edition by Raymond B. Landis, ISBN, 978-0-9793487-4-7.

Purpose of the Course:

To enhance your success as an engineering student and to help you decide which engineering discipline to pursue at UK.

Learning Outcomes:

1. Each student in the class knows every other student in the class by first and last name.
2. Students are highly motivated through a clear understanding of the rewards and opportunities success in engineering study will bring to their lives.
3. Students can give an articulate response to the question "What is engineering?"
4. Students are aware of the various academic disciplines
5. Students manage their time so as to devote an appropriate amount of time and effort to studying and are operating under the principle that they master the material covered in each class period before the next class period comes.
6. Students make effective use of their peers by frequent sharing of information and by regularly engaging in group study and collaborative learning.
7. Students interact regularly with their professors both in the classroom and outside of it, positively and with benefit.

Project;

More information about the project will be provided in a separate handout. Successful completion of the project is required to receive credit in the course.

Journal:

Each student should purchase a three ring binder approximately 1.5 inches thick, with dividers in which to keep:

- All notes taken in class
- Your opinion of each section of the text
- Questions, issues, or perspectives you gained from the course
- Homework
- Exams
- Copies of e-mail communications

Homework and multiple choice exams:

There will be a variety of different homework assignments, online surveys, short papers, in class handouts, etc. which will be announced in class and /or on the course blackboard page. There will be two multiple-choice exams during the semester-the second during Final's Week. It is your responsibility to check the due dates of the individual assignments/exams. No late submissions will be accepted. Students missing more than four homework assignments will not receive credit for the course.

Grading: The grade will be based on the following:

- Grade on your personal journal (30%)
- Grade on homework assignments (30%)
- Grade on multiple-choice exams (20%)
- Grade on Project (20%)

Mid-term grades will be posted in myUK by October 25th.

Attendance:

Attendance is mandatory. Excused absences are determined by University Senate Rules (S.R. 5.2.4.2), which defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an

excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

Accommodations:

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities. Academic.

Integrity:

Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of *Student Rights and Responsibilities* (available online <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Tentative Course Schedule and Assignments:

- Class #1: (August 28th, 30th)
Reading Assignment: None
Problem Assignment: Attend the meeting of an engineering student organization
Class Discussion: Nature of the course and expectations
Representative of engineering student organizations
Introduction to the eStudio
- Class #2: (September 4th, 6th, and 9th)
Reading Assignment: Chapter 2 (The Engineering Profession): Sections 2.6, 2.7, 2.8, 2.9, 2.10
Problem Assignment: Homework #1
Class Discussion: Guest Speaker: Kim Sayre or Ilka Balk, Engineering Career Services
- Class #3: (September 11th, 13th, and 16th)
Reading Assignment: Chapter 2 (The Engineering Profession): Sections 2.1, 2.2, 2.3, 2.4, 2.5
Problem Assignment: Homework #2
Class Discussion: Rewards and opportunities of an engineering career
Greatest engineering accomplishments
Class Activities: What is engineering?
- Class 4: (September 18th, 20th, and 23rd)
Reading Assignment: Chapter 1 (Keys to Success in Engineering Study), Project Statement
Problem Assignment: Freshman Engineering Survey
Homework #3
Class Discussion: Keys to success in engineering study
Class Activities: Small group discussions on “ability” versus “effort”
- Class # 5: (September 25th, 27th, and 30th)
Reading Assignment: Chapter 3 (Understanding the Teaching/Learning Process)
Problem Assignment: Homework #4
Class Discussion: Learning and learning styles
Become an expert learner
Teaching in college
Class Activities: Differences Between Engineering Study and High School
- Class # 6: (October 2nd, 4th, and 7th)
Reading Assignment: Chapter 4 (Making the Most of How You Are Taught)
Problems Assignment: Homework # 5
Class Discussion: Early course preparation
Preparing for lectures
During your lectures
Making effective use of your professors
How to email your professor
Class Activates: Making Effective Use of Your Professor

Class #7: (October 9th, 11th, and 14th)

Note: Peer evaluations of journals are due

Reading Assignment: None
Problem Assignment: None
Class Discussion: None
Class Activities: Exam 1 over Chapters 1,2, 3 and 4

Class #8: (October 16th, 18th, and 21st)

Note: Journals will be collected at the end of class

Reading Assignment: Chapter 5
Problem Assignment; Homework #6
Class Discussion: Reading for comprehension
The Forgetting Curve
Organizing your learning process
Making effective use of your peers
Priority management

Class # 9: (October 23rd, 25th, and 28th)

Reading Assignment: Chapter 8, Sections 8.3, 8.4, and 8.5
Problem Assignment: Prepare questions for guest speakers,
Homework 7
Class Activity; Panel of engineering departmental representatives

Class #10: (October 30th, November 1st and 4th)

Reading Assignment: Chapter 8, Sections 8.3, 8.4, and 8.5
Problem Assignment: Prepare questions for guest speakers,
Homework #8
Class Activity: Panel of engineering departmental representatives

Class # 11 (November 6th, 8th, and 11th)

Reading Assignment: None
Problem Assignment: Tour of Shaver Engineering Library,
Homework #9
Class Discussion; Library orientation

Class # 12 (November 13th, 15th, and 18th)

Reading Assignment: None
Problem Assignment: Homework # 10
Class Discussion: Oral and Written Communications
Class Activity: Elbert C. Ray eStudio orientation

Class #13 (November 20th, 22nd, and 25th)

Reading Assignment: Chapter 6
Problem Assignment: Jung Typology Test
Class Discussion: Personal Development-Receptiveness to Change
Making Behavior Modification Work for You
Class Activities: Overcome Barriers

Class #14: (December 2nd, 4th, and 6th)

Reading Assignment: Chapter 6, Sections 6.5, 6.6, 6.7, 6.8
Problem Assignment: Homework #11
Class Discussion: Personal Development-Receptiveness to Change
Success
Maslow's Hierarchy of Needs
Self Esteem
Myers-Briggs Type Indicator

Class # 15: (December 9th, 11th, and 13th)

Project Report is Due

Reading Assignment: Chapter 8, Section 8.6
Video Assignment: Incident at Morales
Problems Assignment: None
Class Discussion: Ethics and Academic Integrity

Final Exam over Chapters 5, 6, & 8, Tuesday, December 17th, 9—10 AM, Location TBA