

Syllabus – UEET 101: Introduction to Engineering Spring 2014

Course Time, Location: Section 1 – Tuesdays 3:30–4:45 pm;
Section 2 – Thursdays, 8:00–9:15 am, EB 101

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Teaching Assistants:

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Office hours regularly held in the Tutoring Center (EB 141); See Blackboard for time/location changes. While there are four TAs listed, you will have a single contact TA for grade change requests, attendance records, or group evaluations. Once groups are assigned during the second week, your contact TA will be assigned as well to whom you may ask any grading or procedure questions.

Course Description: Introduction to engineering disciplines and careers, role of the engineer in society, engineering approach to problem-solving, engineering design process, concurrent engineering, and engineering ethics.

Course Objectives: Multiple objectives are completed in parallel through course activity:

1. Develop individual definition of engineering; Set goal for graduation and examine how attitudes and behaviors influence achieving that goal.
2. Develop a sense of solidarity with other students, fostering a sense of community with classmates, and introducing students to the opportunities through the Student Association Committee. Students will improve teamwork and cooperative learning skills and develop a peer network through the successful completion of group projects and accountability group meetings.
3. Improve general study/academic skills including learning styles, time-on-task, problem solving, test taking strategies, and reading comprehension. Assisting each individual in designing their own *World Class Engineering Student*.
4. Familiarity with school, college, and program including available resources both academic (tutoring centers, teaching assistants, etc.) and general (counseling, financial aid, health services, etc).
5. Introduce the design process from conceptualization, evaluation of merit, and feasibility.
6. Practice oral and written communication through discussions in class, in accountability groups, and reflection papers.
7. Introduce students to engineering ethics through discussion, case studies, and writing assignments.
8. Introduce the student to the profession and disciplines of engineering, including career prospects. Understand how engineering is relevant to society, industry, the economy, and all other aspects of modern life. Assist students in career planning, resume writing, and learning the skills necessary to achieve career goals.
9. Introduce students to contemporary topics and interdisciplinary nature of engineering.

Communication: Information regarding homework assignments and other class announcements will be posted on the course's [Blackboard](#) web site. Additional emails from the TA and course instructors will be sent using Blackboard's communication tool, which sends email to the Zxxxxxx@students.niu.edu. The student is responsible for course instructions and communication from project team members sent to this email address. Be sure to check or forward this email account!!

Text: *Studying Engineering* 4th Ed., Raymond B. Landis ([link](#)), ISBN 978-0-9793487-4-7, Discovery Press.

Required readings will be posted electronically to the Blackboard website. You should come to class having already read the background material and ready to take notes. A calendar planner (weekly or monthly) is suggested for scheduling activity for throughout the semester.

Attendance (20% of course grade): When measuring academic performance, the variable that has the *highest* correlation to success is whether or not the student attends class. Therefore, attendance is mandatory and will be taken during each lecture through z-ID sign in sheets. If an individual is observed signing in for multiple students, then all will be given zero attendance for that particular week. The lectures of this course are taught by several faculty and staff members, so there is no guarantee that you will be able to catch up on material that you miss simply by asking about it at the next class. Additionally, there will be in-class activities and quizzes that you will be unable to make up if you are absent.

In regards to tardiness, it is a courtesy to your instructors and fellow students to arrive prior to the start of class. Attendance will only be taken for the first 15 minutes of class. Arrival after 3:45 pm (Tues) or 8:15 am (Thurs) will be considered an absence for the course (you may still receive credit for in-class work). If you arrive in the classroom prior to the TA posting the attendance sign-in sheet, it is the *student's obligation* to sign-in prior to the start of the lecture.

The use of cell phones, talking during class, and use of laptops and tablets for tasks other than note-taking is highly discouraged. Individual instructors may deal with infractions at their own unique discretion.

Meetings of accountability groups (6-7 students) will take place outside of class time with the TAs. You will be expected to attend at least 75% of the scheduled meetings to receive full attendance credit for this portion of the class.

Homework Assignments (30% of course grade): All reading assignments, homework sets, and surveys are posted to Blackboard. Electronic homework is submitted by simply clicking on the assignment title and uploading the necessary document. Assignments are usually due at the beginning of the next week's lecture, unless another due date is noted. Surveys may have point values on Blackboard, but actual numerical values are *irrelevant*; Instead a grade with points for completed surveys will be shown.

Hard copy and team assignments should be typed (unless otherwise noted) and include the following information: full name, Z-ID, due date, class section number, and the name of the professor or instructor who assigned it. These assignments are collected by the TAs at the beginning of class. Collaboration is encouraged for the team project, so contributing students should be listed on team submissions. Individual assignments are expected to be the product of student's own work. Please review your student handbook if you have any questions regarding the definition of plagiarism. Therefore, students are expected to cite any references used in their assignments.

Late homework will receive full credit if submitted within 24 hours of the original time due. Any submissions made after that time will not be reviewed, but given a zero for record. The number of late and missing homework assignments will be recorded and considered when evaluating borderline cases of the final grade. The unannounced in-class activities are considered part of the homework grade and cannot be made-up if absent from that particular class.

Design Project (25% of grade): Teams will be assigned to work on a [Lego Mindstorms](#) robotic design projects. Incremental steps in designing components of the robotic structure and programming algorithms will be completed throughout the semester. Three fully integrated devices will be evaluated during the semester. More details of design project activities are provided throughout the term. Lack of participation in one of the phases of the project results in a significant detriment to the overall course grade. Failure by a group to return the university property will incur automatic course failure for all team members.

Requested Gradebook Changes: TAs will post an announcement when grades for attendance, homework, or design projects are posted to Blackboard. This usually occurs 7-10 days after the due date has passed. If a student wishes to challenge a grade, they must communicate with their group’s contact TA within 10 days requesting a re-evaluation of the grade in question. The TA will copy the course instructor on the final decision regarding the grade challenge.

Final Report (25% of grade): The course seeks to engage you in the design process to create a *World Class Engineering Student*. The writing assignments seek reflections on the readings and activities conducted throughout the term. The final report essentially will be compilation of your prior work with greater depth provided by the end of semester perspective. If at the end of the semester the student is achieving an “A” grade from accumulated scores through attendance, homework, and project activity (real-time grades will be posted to Blackboard), then the requirement to submit the final report is waived. Full details of the Final Report will be provided at the end of the semester.

Grading:

Distribution		Scale	
Attendance –	20%	A:	90–100% Outstanding competence
Homework –	30%	B:	80–90% Above satisfactory competence
Project –	25%	C:	70–80% Satisfactory level of competence
Final Report –	25%	D:	60–70% Marginally satisfactory competence
		F:	< 60% Unsatisfactory level of competence