

IE 1205: Introduction to Industrial Engineering
Fall 2017
TR 2:00-3:20; COBA 336

Instructor: Dr. Bonnie Boardman **Office Number:** 325G

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Office Hours: Monday: 9:00-11:00; Wednesday: 9:00-12:00; by appointment

Description of Course Content: Introduction to basic engineering concepts. Opportunities are provided to develop skills in oral and written communication, and department-specific material. Case studies are presented and analyzed.

Student Learning Outcomes:

- Understand the types of work industrial engineers do and how industrial engineering fits into various organizations
- Create an individualized, detailed plan including a semester by semester class schedule to complete the BSIE curriculum.
- Use Microsoft Excel to analyze data collected in lab experiments. Evaluate the results of the analysis.
- Describe basic concepts of a variety of industrial engineering tools.
- Develop a PowerPoint presentation.
- Develop an understanding of the jobs that IEs can do; whatever the job is labeled.

Required Textbooks and Other Course Materials:

We will be using the Top Hat (www.tophat.com) classroom response system in class. You will be able to submit answers to in-class questions using the computers in the classroom. You can visit the Top Hat Overview (<https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide>) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.

An email invitation will be sent to you by email, but if don't receive this email, you can register by simply visiting our course website: <https://app.tophat.com/e/7407845>

Note: our Course Join Code is **407845**

Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491.

Course Topics

Tuesday		Thursday	
		24-Aug	Syllabus and Grit
29-Aug	Design Methodology – Seven Problem Solving Steps	31-Aug	Microsoft Word
5-Sep	Microsoft Word Workday	7-Sep	Microsoft Excel
12-Sep	Microsoft Excel	14-Sep	Microsoft Excel Workday
19-Sep	Design Methodology - PDCA	21-Sep	Data Display and Dashboards
26-Sep	Data Display and Dashboards	28-Sep	Introduction to Probability and Statistics
3-Oct	Probability and Statistics Lab	5-Oct	IMSE Curriculum and Advising Prep
10-Oct	More Excel and Midterm Review	12-Oct	Midterm Exam
17-Oct	Design Methodology - DMAIC	19-Oct	Introduction to Ergonomics
24-Oct	Ergonomics Lab	26-Oct	Microsoft Excel PivotTables
31-Oct	Microsoft Excel PivotTables	2-Nov	Design Methodology – Human Centered Design
7-Nov	Industrial Engineering Lab	9-Nov	Microsoft PowerPoint
14-Nov	Microsoft PowerPoint Workday	16-Nov	Presentation Skills and Licensure/Accreditations for IEs
21-Nov	Intro to Production and Inventory Control	23-Nov	No Class – Thanksgiving Holiday
28-Nov	Production and Inventory Control Lab	30-Nov	Teamwork Skills
5-Dec	Course Wrap-Up and Final Review		
12-Dec	Final Exam - 2:00-3:20		

As the instructor for this course, I reserve the right to adjust this schedule.

Course Requirements:

Assignments, In-Class Activities, and Quizzes – Several out of class assignments will be given during this course. The purpose of these assignments is to allow you to practice the concepts discussed in the course. Many of these assignments will be based on in-class data gathered during in-class activities. If a student misses an in-class activity a sample set of data may be obtained for some activities from the instructor. Students can make a maximum of 80% of the grade on the assignment if the in-class portion is missed.

There will also be many in-class activities and/or quizzes. Most of these will be announced, but some will not be announced. In-class activities, not involving data collection, and quizzes cannot be made up.

All assignments must be handed in at the designated time and will count for 60% of your final grade.

Examinations - There will be two exams given during this course. You must take both exams at their scheduled times. If you miss an exam you must have either a certified medical excuse or prior instructor approval. A makeup test at a designated time during the last week of the semester will be provided for those with excused exam absences. The makeup exam will be fair but comprehensive (covering all the course material) and challenging. Only one missed exam can be made up. Examinations will account for 40% of your final grade. The final exam is scheduled for **Tuesday, December 12, 2:00-3:20**.

Attendance - At the University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I believe that participation in classroom exercises is vital for learning the material. The best way to get a good education at UTA is to become involved as much as you can in class discussions and departmental activities.

Grading: Grades in this course will be earned based on the following criteria:

A = 90% and above

B = 80% - 89%

C = 70% - 79%

D = 60% - 69%

F = 0% - 59%

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late

registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/ses/fao>).

Disability Accommodations: UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the **Office for Students with Disabilities (OSD)**. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

Non-Discrimination Policy: The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.

Title IX Policy: The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit* www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.

Academic Integrity: All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will

appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

Campus Carry: Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow

students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Inclement Weather Policy: In the event that weather or other conditions are such that normal campus operations could be impeded the following policy will apply for this class. If the University is closed, this class will not meet. Any assignments due or examinations scheduled will be due or rescheduled to the very next class period that the class meets. Local media should announce any closings. You can also get information on UTA's homepage.

The IDEAS Center (2nd Floor of Central Library) offers **free** tutoring to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. To schedule an appointment with a peer tutor or mentor email IDEAS@uta.edu or call (817) 272-6593.

The English Writing Center (411LIBR): The Writing Center Offers free tutoring in 20-, 40-, or 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Our hours are 9 am to 8 pm Mon.-Thurs., 9 am-3 pm Fri. and Noon-6 pm Sat. and Sun. Register and make appointments online at <http://uta.mywconline.com>. Classroom Visits, workshops, and specialized services for graduate students are also available. Please see www.uta.edu/owl for detailed information on all our programs and services.

The Library's 2nd floor Academic Plaza offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Services are available during the library's hours of operation.
<http://library.uta.edu/academic-plaza>

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, you can find this information posted near the doors in this room. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

<p>Emergency Phone Numbers: In case of an on-campus emergency, call the UT Arlington Police Department at 817-272-3003 (non-campus phone), 2-3003 (campus phone). You may also dial 911. Non-emergency number 817-272-3381.</p>
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