

ENGR 0020 PROBABILITY AND STATISTICS FOR ENGINEERS I
Course Syllabus: Spring 2019

Lecture: Tuesday and Thursday 9:30AM-10:45AM ; G31 Benedum Hall
Recitations: Fridays; 9:00AM-10:50AM; G28 Benedum Hall
Fridays; 1:00PM – 2:50PM; G26 Benedum Hall

Instructor: Chaosheng Dong
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Office Hours: Wednesday 2:00pm-3:00pm and by appointment

Course Web Page: Go to <http://www.pitt.edu/~chd58/ENG0020.html>. Please check the site regularly for lecture notes, important announcements, homework assignments, quizzes. Also, this course will also be listed in the <https://courseweb.pitt.edu/>. Please check courseweb to find your grades.

Textbook: Walpole, Myers, Myers and Ye, "Probability and Statistics for Engineers and Scientists", Ninth Edition

Teaching Assistant: Shaoning Han, shaoning.han@pitt.edu
Office Hours: Thursday 2:00pm-3:00pm

Grader: Boyuan Lai BOL27@pitt.edu

Course Description:

This course is designed for students majoring in engineering. Topics include: data analysis, probability, random variables, discrete and continuous probability distributions, estimation and hypothesis testing, analysis of variance and introduction to linear regression.

Objectives include:

- To provide an understanding of why good statistics are critical to effective decision making.
- To acquaint the students with the fundamental concepts of probability and statistics.
- To provide an understanding of the processes by which real-life statistical problems are analyzed.
- To develop an understanding of the role of statistics in engineering.
- To familiarize students with computer-based statistical analysis through available software packages.

Applicable ABET Outcomes:

- Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Homework: There will be weekly homework assignments for this class. Typically, the homework will be announced by Thursday, and is due by noon on the next Thursday. Homework can either be submitted to the instructor in class or sent to the instructor's mailbox in 1025, Benedum Hall. Collaboration on solving

the homework is allowed, after you have thought about the problems on your own. It is also OK to get clarification (but not solutions) from books or online resources, again after you have thought about the problems on your own. You should write your solution independently. Late homework is not accepted and homework not turned in will receive a score of 0. All work (computer and manual) should be shown for each problem so that partial credit may be given. Please pick up graded assignments, quizzes in recitation.

Class Conduct: Please turn off your phones prior to the beginning of class. If you feel the need to text or check your email during class, kindly leave the room. Please pick up graded assignments, quizzes, and exam papers in a timely manner. Failure to do so deprives you of the benefit of any feedback provided, and it conveys an impression of not taking the course seriously.

Email Policy: I will respond to emails as promptly as I can. However, I will not address detailed technical questions via email, I may not respond on weekends and after 5PM.

Re-Grades: If you feel there has been an error in grading an assignment, you have **one week** from the day it was returned in class to submit it for a re-grade. When you resubmit the assignment, it must be accompanied by a written explanation of the potential grading mistake.

In Class Work /Class Exercises: There might be class exercises assigned; if you are not in class you will be given a score of 0.

Quizzes: Weekly quizzes will be assigned in recitation. If you miss a quiz, you will receive a score of 0.

Exams: Three exams are scheduled throughout the course. If you must miss an exam, please make alternative arrangements with the instructor **BEFORE** the exam is given. If you miss an exam without prior notification, you will receive a score of 0 for that exam except under extenuating circumstances.

Grading:	Exam 1	25%
	Exam 2	25%
	Exam 3	25%
	Homework	15%
	Quizzes and In-class work	10%

Final grades will be assigned as follows:

A 93-100%	C+ 77-79.9%	D- 60-62.9%
A- 90-92.9%	C 73-76.9%	F Below 60%
B+ 87-89.9%	C- 70-72.9%	
B 83-86.9%	D+ 67-69.9%	
B- 80-82.9%	D 63-66.9%	

ACADEMIC INTEGRITY

All students are expected to adhere to the standards of academic honesty. Any student engaged in cheating, plagiarism, or other acts of academic dishonesty would be subject to disciplinary action. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity <http://www.provost.pitt.edu/info/ai1.html>. This may include, but is not limited to the confiscation of the examination of any individual suspected of violating the University Policy.

DISABILITY SERVICES

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and [Disability Resources and Services](#) (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

STATEMENT ON CLASSROOM RECORDING

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

Student Opinion of Teaching Surveys

Students in this class will be asked to complete a *Student Opinion of Teaching Survey*. Surveys will be sent via Pitt email and appear on your CourseWeb landing page during the last three weeks of class meeting days. Your responses are anonymous. Please take time to thoughtfully respond, your feedback is important to me. [Read more](#) about *Student Opinion of Teaching Surveys*.

Diversity and Inclusion (*New for the Swanson School of Engineering*)

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. For more information about policies, procedures, and practices, see: <http://diversity.pitt.edu/affirmative-action/policies-procedures-and-practices>.

I ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing titleixcoordinator@pitt.edu. Reports can also be filed online: <https://www.diversity.pitt.edu/make-report/report-form>. You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Diversity and Inclusion. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412-648-7930).