# Statistics 3470

# Introduction to Probability and Statistics for Engineers Spring 2016 Syllabus

# MWF 8:00am-8:55am 209 W 18th Ave Room 160

Instructor:	Dr. Ramos
Class:	24300
Email:	ramos@stat.osu.edu
<b>Email Subject:</b>	<b>STAT3470 8 - name - </b> <i>subject</i>
Example:	STAT3470 8 - James - Appointment next Tuesday
Office:	CH 329 (Cockins Hall)
Office Hours:	WTF 11:00am - 11:55am (or by appointment)
Website :	Carmen
<b>WebAssign:</b>	https://www.webassign.net/osu/login.html
Extra Help:	MSCL (Mathematics and Statistics Learning Center)
When:	M-Th 9:10am - 6:20pm & F 9:10am - 1:40pm
Where:	CH134
Web:	https://mslc.osu.edu/courses/stat/3470

# **Course Description**

Introduction to probability, Bayes theorem, discrete and continuous random variables, expected value, probability distributions, point and interval estimation, hypotheses tests, and least squares regression.

STAT3470 is a GE (General Education) Data Analysis course.

**Expected Learning Outcomes** Students understand basic concepts of statistics and probability, comprehend methods needed to analyze and critically evaluate statistical arguments, and recognize the importance of statistical ideas.

### **Pre-requisities**

Math 1152, 1161.xx, 1172, 1181H, 153 or 254, or equivalent, or permission of instructor. Not open to students with credit for 3450, 3460, 427, or 428.

### Textbook

Probability and Statistics for Engineering and the Sciences 9<sup>th</sup> edition by Jay L. Devore. WebAssign has an eBook (See Homework section below).

#### Homework / WebAssign

There will be approximately 12 graded homework assignments; the due dates will be announced IN CLASS. The assignments will be posted on WebAssign. Solutions will be posted on Carmen. Electronic (emailed), printed or handwritten homework will NOT be accepted.

Although students are often encouraged to work together on homework assignments, all students must submit their own work in their own words. DO NOT SIMPLY COPY ANY PART OF SOMEONE ELSE'S HOME-WORK OR SOLUTIONS FROM ANY OTHER SOURCES. Violations will be treated as academic misconducts. NO LATE HOMEWORK WILL BE ACCEPTED.

WebAssign rules (homework points, allowed number of attempts, etc.) will be announced along each assignment. Login to your WebAssign account at:

https://www.webassign.net/osu/login.html.

There is a free trial (no excuse to miss homework assignments). You can get the Access code with the bundle offer (printed book and access code with eBook) at the bookstore or get the access code by login in into WebAssign and follow the instructions.

The access code with eBook can be purchased as well at

http://www.cengagebrain.com/course/1-24LUXGP

If you need help with WebAssign please look for a member of the WebAssign team:

Where: CH122 (Cockins Hall) When: January 13th 1:00pm - 3:00pm January 19th 10:00am - 12:00pm January 20th 12:00pm - 2:00pm

#### Attendance (Credit) / Quizzes (Extra Credit)

There will be "surprise" quizzes IN CLASS. Quizzes will have two purposes: 1) Review/grade class material (Extra Credit) and 2) Track students attendance (Credit). There will be no make-up quizzes. Quizzes rules will be announced in class.

#### Exams

Two midterms and a Final exam will be given in class. For each test (including final), you will be permitted a one-side 8.5" x 5.5" (half letter) sheet with HANDWRITTEN facts or formulas. No homework/quizzes problems nor their solutions.

The final exam will be cumulative, with a slight emphasis on those topics covered after the second midterm. BASIC calculator may be allow and will be approve and announce in class; in case it is announced NO GRAPHING CALCULATORS, CELL PHONES, TABLETS, OR PDAs will be accepted.

There will be NO makeup exams.

### Grading

The final course grade will be based on:

Attendance / Quizzes :	5% + 5%
Homework :	20%
Midterm 1 :	15%
Midterm 2 :	25%
Final Exam	35%

(Note that percentages add to a 105% !!!)

# Academic Misconduct

Please help maintain an academic environment of mutual respect and fair treatment. You are expected to produce original and independent work on the exams. Although students are often encouraged to work together on homework assignments, all students must submit their own work in their own words. It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term academic misconduct includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). Academic misconduct will not be tolerated and will be dealt with procedurally in accordance with university policy, which can be found at http://oaa.osu.edu/coam.html. The Code of Student Conduct is available at http://studentaffairs.osu.edu/csc/.

# **Grades** Dispute

Grades dispute will be accepted within one week after receiving your grade. If you are not present to receive your graded work, it is your responsibility to pick it up within the time period allowed for grading disputes.

## **Communication Devices**

Cell phones, PDAs and other communication devices must be either turned off or put on vibrate during class. Please refrain from texting during class as a courtesy to those presenting and sitting around you. All electronic devices other than a calculator must be shut off and put away during examinations.

#### **Drop Date**

It is responsibility of the student to drop the course on time to avoid getting a 'W' on your records. (Check official calendar for Drop Date: February 05 is the last day to drop without receiving a "W.")

# Disclaimer

This syllabus should be taken as a fairly reliable guide for the course content and policies. However, you cannot claim any right from it and, in particular, I reserve the right to change due dates or the methods of assessment. Official announcements will ALWAYS be those made in class.

# **Tentative Course Schedule**

Date	Reading Sections
Jan 11-15	2.1 - 2.3
Jan 20-22	2.4 - 2.5
Jan 25-29	3.1 - 3.3
Feb 1-5	3.3, 3.4, 3.6
Feb 8-12	Review*, Exam 1 , 4.1
Feb 15-19	4.1-4.4
Feb 22-29	5.2-5.3
March 2-7	5.4, 6.1
March 9,11,21	6.1-6.2
March 23-28	Review*, Exam 2, 7.1
March 20-April 1	7.1-7.3
April 4-11	8.2-8.4 (14.1*)
April 13-18	8.4 (14.1*), 12.1-12.2
April 20-22	12.2 - 12.4, (13.1*-13.4*)
April 25:	Review*
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Actual Exam and Homework dates will be announced in class. Sections/Reviews marked "\*" may be omitted to cover and continue with unmarked sections.