

# STAT 401: Experimental Methods 1

## Section 001

August 24, 2009 – December 11, 2009

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**Class:** M F 08:00 am – 08:50 am 118 Thomas Bldg  
W 08:00 am – 08:50 am 112 Boucke Bldg

<b>Instructor:</b>	Armine Bagyan	<b>TA:</b>	Jingyuan Liu
Office	333 Thomas	Office	316 Thomas
Office Hours	M F 9:00 – 10:00 am T 2:00 – 3:00 pm	Office Hours	W 3:30 – 5:30 pm
Office Phone	863 – 3374	Office Phone	863 – 3238
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If you cannot make it to my office hours or the TA's office hours and you need to see us, send us an email to schedule another meeting time.

### Course Materials:

Textbook: *Statistics 401: An Introduction to Statistics for Engineers and Scientists*, Fall 2009 Edition, by Michael G. Akritas

Calculator: scientific calculator

**PLEASE BRING YOUR CALCULATOR TO CLASS EVERYDAY!**

### Course Objective:

To familiarize students with the basic concepts and ideas of statistics and probability. To provide training in the use of statistical methods and graphics for the analysis and presentation of data encountered in engineering and other disciplines.

### Class Information and Materials:

Class announcements and materials (such as lecture notes, homework and exam solutions, practice problems, etc.) will be regularly posted on ANGEL, so it is recommended that you check the site frequently. Some announcements and reminders will be made in class and/or sent via email.

Lecture slides will be posted before the corresponding class periods which will allow you to print them, bring to class, and think about the material as we discuss it instead of making your notes in class at a furious pace.

Attendance is highly recommended since the lecture notes will not be complete: some important pieces discussed in class will be missing from the notes posted on ANGEL. It is your responsibility to find out the information you missed by not attending classes and labs, and by not checking ANGEL and email.

### Homework:

Homework will be an important part of the class as application and practice of the ideas and concepts of this course. The homework for a particular chapter will be **assigned when we BEGIN discussing that chapter**. The assignments will be announced in class and posted on ANGEL. In most cases, the homework for a particular chapter will be **due at the beginning of the class period following the end of our discussion of that chapter**.

All homework assignments **should be stapled** to avoid lost pages and mixing of different homework. I recommend you to write/type problems in the order they are assigned to avoid grading errors. Also, write your name legibly.

Homework will be graded based on completeness and accuracy. To obtain full credit for a problem **SHOW ALL WORK!** Graded homework will be usually returned to you in class or right after class. It is your responsibility to contact me about your graded homework in case you missed the class when it was returned. Homework solutions will be posted on ANGEL typically around the time the homework is returned to you.

#### **Lab Activities:**

After first several classes we will start using Minitab to complete lab assignments. The purpose of lab activities is to work with statistical and probabilistic concepts of the course and to provide experience of computer-based data analysis. We will have several lab (computing) assignments which will be graded as homework. Due dates for lab assignments may be different from those for homework and will be announced in class and posted on ANGEL. We will either meet in a computer lab or we will go through the activity together in class.

#### **Quizzes:**

Throughout the semester there will be several small (announced or unannounced) quizzes on recent material. These quizzes will also be attendance checks.

#### **Exams:**

There will be two midterm exams in this course. Each midterm will be given during one of the class periods following the completion of the material it covers, and after the homework on that material is graded and returned. The exact dates will be announced in class and posted on ANGEL. **One double-sided hand-written sheet of notes** is allowed for each of the midterms. All the other sources of information (e.g. textbook, lecture notes, computer, phone, classmate, etc.) are not allowed during the midterms.

The final exam will be comprehensive with larger weight for the topics following the second midterm topics. Because of that you are allowed to bring **two double-sided hand-written sheets of notes** to the final exam. All the other sources of information are not allowed during the final exam. According to the UP Fall 2009 schedule it will take place during the final exams week, that is between December 14 – 18, 2009. Time and place will be announced later.

#### **Grading Appeals:**

From the day that any graded material is returned to you, you have two class periods to bring any errors in grading to my attention. After that no grade adjustments will be made. So I recommend that you review any graded materials as soon as you receive them.

#### **Evaluation:**

Homework & Labs	25%
Midterm Exams (2)	40% (each 20%)
Final Exam	30%
Quizzes	5%

#### **Grading Scale:**

93%	A
90%	A –
87%	B +
83%	B

80%	B –
77%	C +
70%	C
60%	D
Below 60%	F

The break points above are tentative, and may be lowered if I find it necessary based on the final course scores. In addition, I reserve the right to adjust final grades based on overall effort throughout the course.

#### **Makeup Policy:**

Homework and lab assignments will not be accepted after the day they are due unless you make other arrangements with me **BEFORE the due date**. Homework and lab assignments are due **AT THE BEGINNING of class**, and will be considered late after that (so do not use class time to finish your assignment). If you have not turned in your assignment at the beginning of class it was due, but you put it in my mailbox **by 12:00 pm that same day**, you will automatically lose 20% of the points for the assignment. My mailbox is in 325 Thomas Bldg under my name. **After 12:00 pm**, you will receive zero for the assignment. Do not bring your assignments to my office or TA's office or mailbox.

**No makeup quizzes** will be given (no matter what the reasons to miss them are).

If due to sickness, family emergency, etc. you must miss an exam, see me **BEFORE the date of the exam** in order to set up a conflict exam time. Without pre-notification and a valid reason you will receive zero for the exam.

If you are ill on a day that an assignment is due or an exam is scheduled, make sure you let me know via email **THAT DAY BEFORE the class begins** to make an alternative arrangement. You may also try to reach me by calling my office. Note that in case of missing the exam this way you will need to necessarily present a valid evidence of illness on that day.

#### **Academic Integrity:**

All Penn State and Eberly College of Science policies regarding academic integrity apply to this course. See <http://www.science.psu.edu/academic/Integrity/index.html> for details.

Note that **cheating is unacceptable**. If the TA or I suspect you of cheating, you will receive zero on the homework, quiz or exam.

#### **Classroom Use Policy:**

All foods and drink (except bottled water) are not allowed in the classrooms. For more information see <http://guru.psu.edu/policies/AD62.html>.

In case of a student's misbehavior and/or engagement in any activity that is not directly related to the class and learning in the class, I reserve the right to ask that student to leave the classroom. Consequences may follow.