Required Texts:


Software Package: Excel and some probably some Systat or SPSS. Calculator use is mandatory and essential (TI-83, TI-83 Plus, TI-84 or TI-84 plus required. If you are using some other version, you have to know how to program those. I shall only demonstrate the use of TI-83, TI-83 Plus, TI-84 and TI-84 Plus).

Course Description: This course will provide an introduction to the basic principles of descriptive and inferential statistics. We shall examine graphical and numerical techniques of summarizing data. We shall discuss probability theory and measures of central tendency and variability. Our goal will be to have a working understanding of regression analysis and in the process we shall discuss sampling distributions, binomial and normal probability distributions and the central limit theorem. We shall also discuss confidence intervals and hypothesis testing. You will be assigned problems throughout this course some of which will require the use of statistical software like Excel, SPSS or your TI-83 or TI-84 calculator. While some assignments will be required to hand in for grading, others will be solved during class time or you will do those as homework problems. Each student will be required to maintain a notebook for the homework problems and bringing the notebook to each class is mandatory.

Important Requirement: Each student is required to send me an e-mail (mxm84@psu.edu) within the first week of classes (with the subject heading "Stat 200, Sec 002" and your name somewhere in the body). The e-mail has to be sent from the student's own account. It will be used to create a mailing list that will later be used to communicate with students for course related matters.

Grading: There will be 3 assignments, one midterm and a final exam. There will be no makeup exams. If the midterm exam is missed, the final exam will carry the extra weight. Under no circumstances a student should miss the final exam.
Distribution of Points:

- Assignments: 30%
- Midterm: 30%
- Final Exam: 30%
- Attendance and Homework: 10%

Total: 100%

You will be given numerical grade for each of the quizzes and exams you take. This grade, in turn, would have a **letter grade equivalent** as shown below:

- 100-90 = A
- 90-87 = A-
- 87-83 = B+
- 83-80 = B
- 80-77 = B-
- 77-70 = C
- 70-69 = D
- 69-60 = F
- Below 60 = F

The final grade that would be assigned for the course may be curved. If so, the grade would be curved down. For example, an 88 can be an “A” or an 84 can be an “A-”.

**Attendance Policy:** Throughout the semester, attendance will be monitored. 10% of your grade will depend on your attendance, class participation and instructor’s discretion. You will be allowed 3 unexcused absences for the entire semester. For each additional absence you will end up losing 1% of your point total. You will only be excused from classes if you have a legitimate reason. As the instructor of this class, I shall decide what constitutes a legitimate excuse for missing classes.

**Academic Integrity:** All students are expected to act with civility, personal integrity; respect other students' dignity, rights and property; and help create and maintain an environment in which all can succeed through the fruits of their own efforts. An environment of academic integrity is requisite to respect for self and others and a civil community.

Academic integrity includes a commitment to not engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty include cheating or copying, plagiarizing, submitting another persons' work as one's own, using Internet sources without citation, fabricating field data or citations, "ghosting" (taking or having another student take an exam), stealing examinations, tampering with the academic work of another student, facilitating other students' acts of academic dishonesty, etc.

Students charged with a breach of academic integrity will receive due process and, if the charge is found valid, academic sanctions may range, depending on the severity of the offense, from F for the assignment to F for the course.

The University's statement on academic integrity, from which the above statement is drawn, is available at http://www.psu.edu/dept/oue/aappm/G-9.html
Disability Statement: The Pennsylvania State University is committed to providing access to a quality education for all students including those with documented disabilities. If a student has a disability and wants to request an accommodation for a course, it is the responsibility of the student to first obtain a University accommodation letter confirming the disability and suggesting appropriate remedies. This letter can be obtained from the Penn State Office for Disability Services (105 Boucke (814) 863-1807) or from the campus Disability Contact Liaison. The contact liaison at Penn State Hazleton is Jackie Walters located at The Learning Center (Laurel-105, (570) 450-3005, jxw2@psu.edu)

It is encouraged that students requesting accommodation do so within the first two weeks of classes so that, once identified, a reasonable accommodation can be implemented in a timely manner.

Tentative Course Outline:
The following course outline is provided to give you some idea about the material that will be covered in this course and the pace at which we shall be moving. The actual coverage and exam dates may change depending on the actual pace of the course and to insure proper spread of the course material.

<table>
<thead>
<tr>
<th>Week</th>
<th>Chapter / Topic</th>
<th>Pages</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction: (Ch. 1.1-1.4)</td>
<td>2-35</td>
<td>Homework: pp. 10-11: 6, 7, 21, 22 pp. 18-19: 11, 24</td>
</tr>
<tr>
<td></td>
<td>Lab: Learning the basics</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Ch. 2.1-2.7)</td>
<td>36-59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lab: Excel Charts</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Continuation of Chapter 2</td>
<td>68, 115</td>
<td>Assignment 1 Homework: pp. 100-101: 8, 16, 22, 24</td>
</tr>
<tr>
<td>4</td>
<td>Probability: (Ch. 3.1-3.4)</td>
<td>118-149</td>
<td>Homework: pp. 146-148: 2, 3, 7, 8, 9, 10, 12, 13, 14, 17, 20, 26</td>
</tr>
<tr>
<td>5</td>
<td>Continuation of Chap 3</td>
<td>Assn. 1 Due</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------------</td>
<td>-------------</td>
<td></td>
</tr>
</tbody>
</table>
| 6 | Probability Distributions (Ch. 4.1-4.4)  
Lab: Binomial and Poisson Probability Dist | 180-223  
203, 215 | Homework:  
pp. 174: # 10, 12, 14  
pp. 194: # 15-22  
pp. 211: # 13, 14  
pp. 216: # 6, 10 |
| 7 | Normal Probability Distributions (Ch. 5.1-5.7)  
Lab: Normal Distribution | 259-291  
237, 245  
285 | Assignment 2 |
| 8 | Estimates and Sample Sizes (Ch. 6.1-6.5)  
Lab: 311, 342, 361-362, | 296-365 | Homework:  
pp. 312-315:  
# 8, 22, 24, 26, 30, 36, 40  
pp. 328: # 22, 26  
pp. 344: # 14  
pp. 356-57: # 14, 18 |
| 9 | Review (Chapters 1 through 6) | Assn. 2 Due |
| | **Oct 28: Midterm Exam (During Lab)** |
| 10 | Hypothesis Testing (Ch. 7.1-7.6)  
Lab: 395, 427-430 | 366-435 | Assignment 3 |
| 11 | Inferences from two samples (Ch. 8.1-8.4)  
Lab: 446, 460, 482 | 436-493 |
| 12 | Correlation and Regression (Ch. 9.1-9.4)  
Lab: 510, 526 | 494-541 |
| 13 | Continuation of Chap 9  
Lab: 537 | Assn. 3 Due |
| 14 | Multiple Regression (Ch. 9.5-9.6)  
Lab: 547 | 541-562 |
| | **Final Exam** | |