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**STATISTICS 200: SECTION 102  
ELEMENTARY STATISTICS  
SUMMER 2007**

**COURSE DESCRIPTION:** Welcome to Stat 200. Statistics is the art and science of using sample data to make generalizations about populations. The objective of this course is to explore and apply basic statistical concepts and procedures that are used when analyzing data. Course topics covered include methods for:

- collecting and summarizing sample data
- evaluating the accuracy of estimates obtained from sample data
- making statistical inferences about populations

What you should discover is that statistics is not just another math course. While you will be exposed to new terminology and concepts, much of the time you will use statistical software to solve problems that require quantitative solutions. Basic algebra is the only prerequisites.

**INSTRUCTOR:**

- **Name:** Patricia (Pat) M. Buchanan
- **Office:** 309 Thomas Building
- **Office Hours:** by appointment
- **Phone:** (814)-865-6266
- **Email:** send email inside **Angel Website** under “**Communicate**”

**ROOMS & TIME:**

- MWF 9 Life Science (9:35 – 10:50) AM
- TR 4 Life Science (9:35 – 10:50) AM

**COURSE FORMAT**

- **MWF**
  1. presentation of course content
  2. Exams will be given
  3. Pop quizzes will be given (need to be present at the entire class to take the pop quiz)
  
- **TR (Computer Labs)**
  1. Complete “activities” in small groups based on lectures & readings
  2. Activities will include both data analysis & concept illustration often requiring the use of the statistical software package: Minitab
  3. **Be prepared to learn** - bring your textbook, calculator, & notes
  4. **Lab Activity Quizzes** will be taken at the end of each lab
  5. Some labs will be reserved for completing group projects
  6. Effort made in lab will definitely Exam grades

**REQUIRED MATERIALS: (Copy of Textbook found on Reserve in Pattee)**

1. Printed textbook, **Mind on Statistics, 3<sup>rd</sup> Edition**. by Utts and Heckard
2. Available on web at: [www.ichapters.com](http://www.ichapters.com)
3. Calculator (to complete homework assignments & lab activity calculations)

## GENERAL TOPICS COVERED IN STAT 200

- Overview of Statistics: Definition, Populations, & Samples
- Basics of Experimental Design
- Binomial Distributions, Normal Distributions, & Sampling Distributions
- Descriptive And Inferential Methods for:
  1. One Quantitative Response Variable (One, Two, and More Than Two Samples)
  2. One Categorical Response Variable (One, Two, and More Than Two Samples)
  3. Two Different Quantitative Variables & Two Different Categorical Variables

## TEXTBOOK COVERAGE

- Chapter 1 (all sections)
- Chapter 2 (all sections)
- Chapter 3 Section 3.2
- Chapter 4 Sections 4.1-4.3
- Chapter 5 (all Sections)
- Chapter 6: Sections 6.1, 6.2, & 6.4
- Chapter 8: Sections 8.1-8.4, 8.6
- Chapter 9: Sections 9.1, 9.2, 9.6, 9.9
- Chapters 10 (all sections)
- Chapter 11: Sections 11.1 to 11.4
- Chapter 12: Sections 12.1 -12.4
- Chapter 13: Sections 13.1 - 13.5
- Chapter 14: pages 612 -- 613,
- Chapter 15: Sections 15.1 & 15.2,
- Chapter 16: Sections 16.1-16.2

**COURSE WEB SITE (ANGEL):** <https://cms.psu.edu>: On this web site, you will find posted:

- course syllabus
- solutions to assigned homework problems, exams, & quizzes
- weekly agenda's (including assigned homework)
- study guides for exams & quizzes (posted at least one week in advance)
- announcements & email correspondence
- lab activities & lab activity quizzes: available for review after completed
- grades

**COURSE AGREEMENT:** This syllabus serves as an agreement that begins on the first day of class & ends upon completion of the scheduled final. With this course, you are responsible for:

- anything discussed in class & posted, on the **ANGEL** website, including emails sent inside **ANGEL**
- sending & replying to all course email inside the **Angel under "In Touch"** (check daily during the week)
- keep up with the pace of the course
- taking all exams and quizzes during the scheduled time.
- coming to the class prepared to learn
- seeking appropriate & timely help if having problems
- being present during the summer session
- accepting that final grades will **not** be changed for purposes of maintaining financial aid and/or academic progress. (also grades will **not** be curved)
- accepting that grades will be based on mastery of material (not just on attendance)
- accepting that individual extra credit will not be allowed
- finding enough time to make the appropriate commitment to the course
- knowing your PSU ID number for all scantrons procedures
- calculating your grade based on information found in the Angel Grade book (note your grades will appear as a "zero" in the Angel Grade book until a grade is achieved)

**DISABILITY POLICY:** It is Penn State's policy to not discriminate against qualified students with documented disabilities in its educational programs. If you have a disability-related need for modifications in the course, contact both the instructor and the Office for Disability Services (116 Boucke) at the beginning of the semester.

## COURSE REQUIREMENTS

### Exams:

- need to take during the scheduled time( make-ups will not be scheduled)
- do not oversleep for the exam

### Group Projects (Groups of 3 people)

- **Project 1:** complete the at the middle of the summer session
- **Project 2:** complete at the end of the summer session
- **Need** to both follow instructions and be statistically accurate to achieve points
- **Need to be accountable for contribution to project** (other group members can refuse to put your name on a project if you don't sufficiently contribute)
- Must be present on days scheduled for Project work

### Homework

- A total of 5 assignments will be given though out the semester (best 4 will count)
- **Late homework's will not be accepted** under any circumstances (**don't even ask**)
- Must follow directions for full credit

### Lab Activity Quizzes (Automated – On-Line)

- 11 quizzes will be given throughout the semester (best 9 will count)
- must take in 4 Life Sciences during the scheduled lab times(lab activity quizzes scores that come for computers outside 4 Life Sciences and/or not during class time will be converted to a “zero”
- **No make-ups given under any circumstances** because automated & drops (**don't even ask**)
- Consist of about 20-28 questions based on concepts covered in lectures and activities

### Pop Quizzes (during lecture)

- Must be present for the entire lecture
- Best 6 out of 8 will count
- No Make-ups under any circumstances (**don't even ask**)

### ACADEMIC INTEGRITY:

- Includes a commitment to not engage in or tolerate acts of falsification, misrepresentation or deception.
- Such acts of dishonesty violate the fundamental ethical principles of the Penn State community and compromise the worth of work completed by others.
- This course will follow the guidelines found under Academic Integrity (Section 49-20) of the University Faculty Senate Policies for Students.

### THE PENN STATE HONOR CODE:

“A good name is earned by fair play, square dealing and good sportsmanship in the classroom, on the athletic field and in all other college relations. We earnestly desire that this spirit may become a tradition at Penn State.”

**TABLE 1: IMPORTANT DATES**

Course Requirement	Dates
Exams	<ul style="list-style-type: none"><li>• Fri June 8 &amp; Wed June 27</li></ul>
Homework (keep best 4 out of 5)	<ul style="list-style-type: none"><li>• Fri May 25, Fri June 1, Wed June 6</li><li>• Wed June 20, Tues June 26</li></ul>
Lab Activity Quizzes (keep best 10 out of 12)	<ul style="list-style-type: none"><li>• Typically during the Tues Lab and Thurs Lab</li><li>• Must take inside lab during class time</li></ul>
Project 1	<ul style="list-style-type: none"><li>• Mon June 11 &amp; Tues June 12 (due Thurs June 14)</li></ul>
Project 2 (Capstone Experience)	<ul style="list-style-type: none"><li>• Thurs June 28, Fri June 29 , Mon July 2 (due Mon July 2)</li></ul>

**TABLE 2: SUMMARY OF COURSE REQUIREMENTS**

Requirement	Pts/Effort	Overall Pts	Overall Percent (%)
<b>In-Class Exams</b>	150	300	37.5%
<b>Homework</b> (keep best 4 out of 5) – late assignments not allowed – don't ask	25	100	12.5%
<b>Project (1)</b>	60	60	7.5%
<b>Project (2) – Capstone Experience (Replace Final)</b>	100	100	12.5%
<b>Pop Quizzes</b> (keep best 6 out of 8) - no make-ups allowed – don't ask	10	60	7.5%
<b>Lab Activity Quizzes</b> (keep best 10 out of 12) - no make-ups allowed – don't ask	18	180	22.5%
<b>Total</b>		<b>800</b>	<b>100%</b>

**FINAL GRADES:** Final grades will be based on 800 possible points. Point ranges for final grades are found in **Table 3**. Do not expect these point ranges to be curved because adjustments will be made along the way if appropriate. Keep track of your grade.

**TABLE 3: POINT RANGES FOR FINAL GRADES**

Final Grade	Point Totals	Percents
<b>A</b>	740-800 points	(92.5 to 100+)%
<b>A-</b>	716-739 points	(89.5 to 92.4)%
<b>B+</b>	692-715 points	(86.5 to 89.4)%
<b>B</b>	652-691 points	(81.5 to 86.4)%
<b>B-</b>	636-651 points	(79.5 to 81.4)%
<b>C+</b>	600-637 points	(75.0 to 79.4)%
<b>C</b>	556-601 points	(69.5 to 74.9)%
<b>D</b>	472-555 points	(59.0 to 69.4)%
<b>F</b>	<472 points	< (59)%

**Free Tutoring**

- Available at University Learning Center (ULC)
- Website: [www.ulc.psu.edu](http://www.ulc.psu.edu)

Good luck with this rapid-paced course!