### BA 240: STATISTICAL ANALYSIS SPRING 2011

INSTRUCTOR: DAN YAMASAKI DAY PHONE: (425) 918-4471 E-MAIL: Dan.Yamasaki@Premera.com

| CLASS LOCATION: | C208             | C208           |
|-----------------|------------------|----------------|
| SECTION         | С                | D              |
| CLASS HOURS:    | TTH 5:30-7:40 PM | TTH 7:50-10 PM |
| ITEM:           | 5516             | 5517           |

# **COURSE OVERVIEW AND OBJECTIVES**

The goal of this course is to provide a practical and applied view of the use of statistics. Understanding technical, contextual, and research applications are the aspects to be covered in this course. This course will also involve the use of Microsoft Excel software to solve statistical problems. This is a rigorous course, designed and applicable for transfer to 4-year universities.

#### **Topics covered will include:**

mean, median, mode standard deviation, standard error, variance probability binomial distribution normal distribution, central limit theorem student's t distribution hypothesis testing confidence intervals linear regression (simple, multiple) correlation chi square tests analysis of variance

Additionally, we will be using the Microsoft Excel software package

#### TEXTS

1) ) McClave and Sincich, Statistics, 10th Ed

#### **REQUIREMENTS AND ASSIGNMENTS**

| There will be 800 points available in this course: |     |
|--|-----|
| 3 exams at 150 points each                         | 450 |
| 4 EXCEL assignments at 40 points each              | 160 |
| 1 group project                                    | 110 |
| 8 Homework assignments at 10 points each           | 80  |
| Total  | 800 |

There will be scheduled lab sessions on specified days in which students can work on their EXCEL assignments. These assignments may be done in pairs. If students wish to do assignments at other times, they can find open computers at N250.

There is a large amount of material to be covered. It is understood that a student may have to miss classes due to other commitments; although missing classes tend to be detrimental to the understanding of the material. Historically classroom attendance has been found to be very beneficial. Class notes are meant to

supplement, not substitute for attendance. Students are held responsible for knowing what was said during class.

### **GRADING POLICY**

In conjunction with the Bellevue College grading policy, the following grading system will be used in this course:

| GRA | DE  | PERCENTAGE | NO. OF POINTS    |
|-----|-----|------------|------------------|
| А   | 4.0 | 96-100     | 768 - 800        |
| A-  | 3.7 | 92-95.9    | 736 - 767        |
| B+  | 3.3 | 89-91.9    | 712 - 735        |
| В   | 3.0 | 86-88.9    | 688 - 711        |
| B-  | 2.7 | 84-85.9    | 672 - 687        |
| C+  | 2.3 | 81-83.9    | 648 - 671        |
| С   | 2.0 | 78-80.9    | 624 - 647        |
| C-  | 1.7 | 75-77.9    | 600 - 623        |
| D+  | 1.3 | 67-74.9    | 536 - 599        |
| D   | 1.0 | 60-66.9    | 480 - 535        |
| F   | 0.0 | BELOW 60   | <b>BELOW 480</b> |

## SPECIAL ACCOMMODATIONS

Students requiring any special accommodations for the class should make arrangements at the beginning of the term through advisors/counselors in B233, Student Services Building or by calling 641-2498

### POLICY REGARDING PLAGIARISM, STEALING, AND CHEATING

To be clear regarding plagiarism, stealing, and cheating, this course outline includes policy on these matters.

Cheating includes, but is not limited to, copying answers on exams, glancing at nearby exams, turning in papers that have been used in other classes, and giving or receiving help during an exam.

Stealing includes, but is not limited to, taking the text, notes, exams, library books, or other personal property of others without their permission.

Plagiarism is presenting the words, ideas, and/or work of others as if it is an individuals own work. It includes, but is not limited to, using other's papers as one's own and including parts of published works without giving credit where credit is due.

If you choose to cheat, steal, or plagiarize, the following actions will be taken: 1) First instance: you will receive a 0 score for the entire test/project <u>regardless of the extent of the cheating</u>. **Students who receive help and students who give help will be considered equally guilty.** 

2) Second instance: you will receive a failing grade for the course and a report of the incident will be forwarded to the Dean of Students. He/she may file the report in your permanent record and/or take further disciplinary action.

If you feel you have been unfairly accused of any of the above, you may appeal. For a description of the due process, see WAC 132H-120, available in the Dean's office.

WEEK 1: Reading – Apr 05 Chapter 2.1-2.6 Apr 07: Chapter 3.1-3.8

Apr 05: Course Requirements, Overview (Lecture 1) Describing Data (Lecture 2)

Apr 07:Project Discussion; Probability (Lecture 3)

WEEK 2: Reading – Apr 12 Chapter 4.1-4.2, 4.4 Apr 14: Chapters 5.3, 5.5, 6.3

Apr 12: Binomial Distribution (Lecture 4)

Apr 14: Normal distribution, Z-scores (Lecture 5); Central Limit Theorem (Lecture 6)

WEEK 3: Reading – Apr 19: Chapters 7.2-7.5 Apr 21: Chapters 8.1-8.5 Apr 19: Confidence intervals for Single Population (Lecture 7)

Apr 21: Hypothesis testing for Single Population (Lecture 8)

WEEK 4: Reading -

Apr 26: Examples (Practice 1, Review 1); Lab 1

Apr 28: Review for Exam 1 (Practice Problems for Exam 1); Teams selection and data selection due

WEEK 5: Reading – May 05: Chapters 9.2-9.3

May 03: EXAM 1

May 05: Confidence Intervals for Difference in Two Means (Lecture 9)

WEEK 6: Reading – May 10: Chapters 9.2-9.3 May 12: Chapters 9.4

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May 10: Hypothesis Tests for Differences in Two Means (Lecture 10); Lab 2

May 12: Confidence Intevals and Hypothesis Tests for Difference in Two Proportions (Lecture 11); Examples (Practice 2, Review 2)

WEEK 7: Reading -

May 17: (cont) Review for Exam 2 (Practice Problems for Exam 2)

May 19: EXAM 2

WEEK 8: Reading - May 24: Chapters 11.1-11.9, 12.1-12.3, 12.11

May 24: Regression and Correlation (Lecture 13)

May 26: (cont) Regression and Correlation; Lab 3

WEEK 9: Reading – May 31: Chapter 13.2-13.3 Jun 02: Chapter 10.1-10.2

May 31: Chi-square Tests (Lecture 12) There should be time for you to work with your project team)

Jun 02: Analysis of Variance (Lecture 14); Lab 4 Review for Final Exam(Practice 3, Review 3)

WEEK 10: Reading –

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Jun 07: NO CLASS

Jun 09 : (cont) Review for Final Eam (BA240\_PraciceFInal) ; Excel analysis of project due

WEEK 11: Reading -

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Jun 14: OPEN DAY for questions

Jun 16: Project Due at beginning of class; FINAL EXAM

How to get to online files

when you log into MyBCC, there should be two boxes at top of page in the left hand box, use the pull down menu to get "people" in the right hand box type my name dan yamasaki then hit the magnifying glass to get a search

you should be taken to a page with my name on it. select my name. There may be multiple occurrences. The exact match one should work.

on the next page which should be my home page, you should see a list on the left hand side. select shared documents

on the next page, select the ba 240 statistical analysis class

on the next page should be the list of files available