

BA 240 – STATISTICAL ANALYSIS SPRING 2016 COURSE SYLLABUS

Instructor: Shana Chung

Class Time/Place: Tues/Thur 8:30 am – 10:20 am, Fri 9:30-10:20 am @ C-208

M/W 10:30 am - 12:20 pm, Fri 10:20-11:20 am @ C-208

E-mail: Please use Canvas Mail. If you do not receive a response within 48 hours, I may not have

received your message. Please send another message, or see me in class or my office. If Canvas is unavailable, you may contact me via email: shana.chung@bellevuecollege.edu

Phone: 425-564-2527

Office location: C207-B

Office Hours: Thur 10:30 am to 12:20 pm and Fri 8:30 to 9:20 am or by appointment

COURSE INFORMATION

Surveys techniques used in decision-making and research. Topics include descriptive and inferential statistics, probability, central tendency, variablity, normal and t-distributions, hypothesis testing, and regression. Materal has applications in business, health care, etc.

BOOKS AND MATERIALS REQUIRED

Textbook: <u>Statistics</u> Tenth Edition, by McClave and Sincich, Prentice Hall 2006

Sortware: Excel 2007 or later

Others: TI-83 Calculator (minimum requirement) and USB Flash Drive

COURSE OUTCOMES

After completing this class, students should be able to:

- Identify the relationship between data analytics and business decision-making process
- Analyze and evaluate research methodologies
- Identify the most common data analytics methods and discuss how each method best applies to specific analytics questions
- Identify the most common technological tools used in data analytics
- Evaluate business problems and determine suitable analytical methods
- Use technological tools such as Excel or R to manage data sets in various sizes and formats
- Interpret research study results and clearly state the conclusion in reports and presentations with close attention to details

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TOPICS COVERED:

Chapter 1:	Introduction	
Chapter 2:	Descriptive Statistics	
Chapter 3:	Probability	
Chapter 4:	Discrete Distribution	
Chapter 5:	Continuous Distribution	
Chapter 6:	Sampling Distribution	
Chapter 7:	Confidence Interval	
Chapter 8/9:	Hypothesis Testing (One Sample / Two Samples)	
Chapter 10:	Analysis of Variance	
Chapter 11/12:	Regression Analysis (Simple / Multiple)	

HOW OUTCOMES WILL BE MET

ATTENDANCE AND PARTICIPATION (10%)

Daily attendance and active participation is critical to success in this class. Students who do not attend, arrive late and/or leave early will lose attendance and participation points.

HOMEWORK ASSIGNMENTS (10%)

There are 10 homework assignments; each assignment contains textbook and or/worksheet questions. Reading assignments and homework problems are in the Canvas modules and course calendar.

All assignments are due <u>at the beginning of the class</u>, and will be accepted only if you are present in class. **Late homework will not be accepted.** The lowest homework score will be "dropped" when calculating final grades.

QUIZZES (10%)

There are nine scheduled quizzes; the instructor may also give "pop" quizzes. Each scheduled quiz is worth 10 points and is approximately 20 minutes long. Quizzes are closed book, but students allowed to use notes on two sheets (4 pages total) of standard letter (8.5" x 11") sized paper.

Missed quizzes may not be made up. The lowest quiz score will be "dropped" when calculating final grades.

PROJECT (20%)

The Project includes THREE parts:

- 1) **Team Contract:** Gather in groups (each group should have 4 team members). Select a data set that satisfies the requirements. Split up work evenly and complete the Team Project Contract. See **Modules > Project Part 1** for more information.
- 2) Individual Report: Each team member choose ONE variable (NO two team members may use the SAME variable). Complete a basic descriptive statistics analysis on your chosen variable using EXCEL, and complete an individual report. See *Modules* → *Project Part 2* for more information.
- 3) **Team Report:** Work in teams, complete a multiple regression analysis using EXCEL, and complete a group report. See *Modules* → *Project Part2* for more information.

Note: No late project assignments will be accepted.

MIDTERM EXAMS (30%) AND FINAL EXAM (20%)

There are a total of three exams given in class, at approximately the 4th, the 8th, and the 11th week. The first two exams are midterms, and the last one is the final. Exam 1 covers Ch 1 through Ch 4, Exam 2 covers Ch 5 through Ch 8, and the Final is cumulative (but predominantly covers the materials after Exam 2). Exams are closed book, closed notes. However, students may bring notes to use during the exams. Detailed exam information and instructions will given in class approximately one week before the exam dates.

EMERGENCIES

There are exceptions on due dates and other class work for documented emergencies, which include death in the family, physical or mental incapacitation, or other extraordinary circumstance. I will accept official documentation on dated and signed letterhead hard copy, provided it includes legible contact information, identification of the period of emergency, identification of you as the person affected by the emergency, and is verifiable.

COMMUNICATION

Please feel free to visit me during my office hours or make an appointment to see me in my office, which is located in the Business Administration Transfer Office, C-207. The Business Transfer Program faculty are required to use Canvas rather than email for written communication. If you send me a message through Canvas, please include in the subject line a description such as "Quiz," "Project," etc. If you do not receive a reply from me within 48 hours, it may mean I did not receive your message, so please send another.

Students are responsible for: (a) checking Canvas daily, including the Home page, Messages, Announcements, Modules, and Grades, and (b) inquiring about any updates in the event of their absence from class when any changes are announced.

GRADING

Your grade will be based upon a total of 500 points. Your final grade for the course will be calculated based on points earned and then converted to a letter grading scale (A, B, C, etc.). I reserve the right to determine the final grading scale after all of the points have been earned. Nevertheless, the final course grading scale will look approximately as it does below.

Note that the grading activities vary in character and provide students with multiple opportunities and modalities for evaluation. If you have a question about your grade, you must contact me via Canvas within 72 hours after the grade is posted (including the final course grade), and we will arrange to meet in person to discuss your concern.

Attendance and participation	50
Homework	50
Quizzes	50
Midterm exams (2)	150
Project	100
Final Exam	100
Total	500

The final grade is determined as follows:

93 – 100%	А	4
90 – <93	A-	3.7
87 – <90	B+	3.3
83 – <87	В	3.0
80 – <83	B-	2.7
77 – <80	C+	2.3
73 – <77	С	2.0
70 – <73	C-	1.7
67 – <70	D+	1.3
60 – <67	D	1.0
Below 60	F	0

A passing grade will not be given unless <u>ALL REQUIREMENTS</u> of the course are completed.

HELP WITH CANVAS

This course relies heavily on resources available in the Canvas course site. Information on Canvas, including helpful tutorials, may be found here.

CLASSROOM LEARNING ATMOSPHERE

INSTRUCTOR'S EXPECTATIONS

In order to succeeed, students will need to

- Study at least 10 hours per week outside of class (reading, homework, project)
- Read the textbook and preview the slides before class; review them after class
- Attend each class and actively participate
- Turn off cell phones and laptops during class
- Complete assignments as scheduled
- Complete problems in addition to those assigned for homework, particularly in preparation for exams
- Cooperate and collaborate with other students
- Start early on group project
- Make use of tutors in the Business Study Center in C-207 as well as additional resources (solution manual, documents, and resources in the Canvas course site).

CLASSROOM BEHAVIORS

Please be on time to class, both for the sake of your own learning and also so as not to distract your classmates. If you must arrive late or leave while class is in session, please take a seat near the door and also attempt to disrupt the class as little as possible while entering and/or exiting.

I endeavor to foster a classroom environment in which we feel free to express opinions and ask questions. Inappropriate/disruptive classroom behaviors violate the Student Code of Conduct. Examples of unacceptable behavior include: talking out of turn, arriving late or leaving early without a valid reason, allowing cell phones/pagers to ring, and inappropriate behavior toward the instructor or classmates. The instructor can refer any violation of the Student Code of Conduct to the Dean of Student Services for possible disciplinary action.

POLICY ON USE OF ELECTRONIC DEVICES

Except as expressly allowed under a Letter of Accommodations, you are not permitted to use laptops, cell phones, pagers or similar devices during class. Please turn all such devices off or set to

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silent while in class. Students who use prohibited electronic devices during class will lose Attendance and Participation points. You may not record lectures or discussion. See below for information regarding the Disability Resource Center.

OTHER INFORMATION

AFFIRMATION OF INCLUSION

Bellevue College is committed to maintaining an environment in which every member of the campus community feels welcome to participate in the life of the college, free from harassment and discrimination.

We value our different backgrounds at Bellevue College, and students, faculty, staff members, and administrators are to treat one another with dignity and respect.

RELIGIOUS HOLIDAYS

Students who expect to miss classes, examinations, or any other assignments as a consequence of their religious observance should be provided with a reasonable alternative opportunity to complete such academic responsibilities. It is the obligation of students to provide faculty with reasonable notice of the dates of religious holidays on which they will be absent, preferably at the beginning of the term. Students who are absent on days of examinations or class assignments should be offered an opportunity to make up the work without penalty (if they have previously arranged to be absent), unless it can be demonstrated that a makeup opportunity would constitute an unreasonable burden on a member of the faculty. Should disagreement arise over what constitutes an unreasonable burden or any element of this policy, parties involved should consult the department chair, or Dean.

COLLEGE ANTI-DISCRIMINATION STATEMENT

Bellevue College does not discriminate on the basis of race or ethnicity; color; creed; national origin; sex; marital status; sexual orientation; age; religion; genetic information; the presence of any sensory, mental, or physical disability; gender identity or veteran status in educational programs and activities which it operates.

For further information and contacts, please consult College Anti-Discrimination Statements.

SOCIAL SCIENCES DIVISION PROCEDURES AND GUIDELINES

Cheating, Stealing and Plagiarizing*

Cheating, stealing and plagiarizing (using the ideas or words of another as one's own without crediting the source) and inappropriate/disruptive classroom behavior are violations of the Student Code of Conduct

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at Bellevue College. Examples of unacceptable behavior include, but are not limited to: talking out of turn, arriving late or leaving early without a valid reason, allowing cell phones/pagers to ring, and inappropriate behavior toward the instructor or classmates. The instructor can refer any violation of the Student Code of Conduct to the Dean of Student Services for possible probation or suspension from Bellevue College. Specific student rights, responsibilities and appeal procedures are listed in the Student Code of Conduct, available in the office of the Dean of Student Services.

Incomplete

If a student fails to complete all the required work for a course, an instructor may assign the grade of Incomplete ("I"). The student must complete the coursework by the end of the next quarter, or receive the assigned letter grade (usually an "F").

F Grade

Students who fail a course will receive a letter grade of "F."

Final Examination Schedule

The Social Science Division will adhere to the final examination schedule as stated in the BC Schedule. Final examinations will be held at the end of each quarter at fixed times. Instructors will not give examinations in advance of the regular schedule. A student who is absent from any examination held at any time during the quarter may forfeit the right to make up the examination. If, for illness or some other circumstance beyond the student's control, the student is unable to be present at any scheduled examination and has contacted the instructor on a timely basis, the student may be permitted to take such examination at a time designated by the instructor.

Withdrawal From Class

College policy states that students must formally withdraw from a class by the end of the seventh week of the quarter (Registration Office, B125). If a student has not withdrawn by that date, an appropriate letter grade will be assigned for the course.

Hardship Withdrawal

Instructors may assign the grade of "HW" (hardship withdrawal) at their discretion in the event that a student cannot complete the coursework due to extreme and exceptional circumstances. Students may also contact the Enrollment Services office BEFORE grades are assigned in cases of hardship.

Students Who Require Disability Accommodations:

Students with disabilities who have accommodation needs are encouraged to meet with the Disability Resource Centre (DRC) office located in B132 (telephone 425.564.2498 or TTY 425.564.4110), to establish their eligibility for accommodation. The DRC office will provide each eligible student with an

accommodation letter. Students who require accommodation in class should review the DRC accommodation letter with each instructor during the first week of the quarter.

Students with mobility challenges who may need assistance in case of an emergency situation or evacuation should register with Disability Resource Centre, and review those needs with the instructor as well.

Distribution of Grades

Grades will not be posted in the Social Science Division or in faculty offices, and secretaries will not give out grades. Students should access their grades through the BC Web site.

Return of Papers and Tests

Paper and/or Scantron score sheet returns will be arranged in the following ways ONLY: by mail, if student supplies the instructor with stamped, self-addressed envelope (with appropriate postage); or by the instructor designating a time and place whereby the student may retrieve his/her papers. Unclaimed papers and/or Scantron score sheets must be kept by the instructor for a minimum of sixty (60) instructional days following the end of the quarter.

*If you are accused of cheating, stealing exams and/or plagiarism, there is a Bellevue College Student Discipline and Appeals Procedure (the right to due process) which you may pursue. Contact the office of Division Chair (D110), the Dean of Student Services (B231A) or the Associated Student Body (C212) for information regarding the appeals process.

STUDENT CODE OF CONDUCT AND ACADEMIC INTEGRITY

Any act of academic dishonesty, including cheating, plagiarism (using the ideas or words of another as one's own without crediting the source), and fabrication and inappropriate/disruptive classroom behavior are violations of the Student Code of Conduct at Bellevue College. Examples of unacceptable behavior include, but are not limited to, talking out of turn, arriving late or leaving early without a valid reason, allowing cell phones/pagers to ring, and inappropriate behavior toward the instructor or classmates. The instructor can refer any violation of the Student Code of Conduct to the Dean of Student Success for investigation. Specific student rights, responsibilities, and appeal procedures are listed in the Student Code of Conduct at: Student Code

CONFIDENTIALITY AND MANDATORY REPORTING

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep

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information you share private to the greatest extent possible. However, I am required to share information regarding sexual assault and other forms of sexual misconduct (e.g. dating violence, domestic violence, stalking) that may have occurred on campus or that may impact someone on campus with the Title IX Coordinator. Students may speak to someone confidentially by contacting the BC Counseling Center at (425) 564-2212. The Title IX Office can be contacted at 425-564-2441 and more information can be found at www.bellevuecollege.edu/titleix/.

BELLEVUE COLLEGE E-MAIL AND ACCESS TO MYBC

All students registered for classes at Bellevue College are entitled to a network and e-mail account. Your student network account can be used to access your student e-mail, log in to computers in labs and classrooms, connect to the BC wireless network and log in to MyBC. To create your account, go to:

Create Email

BC offers a wide variety of computer and learning labs to enhance learning and student success. Find current campus locations for all student labs by visiting the <u>Technology Help Desk</u>

DISABILITY RESOURCE CENTER (DRC)

The Disability Resource Center serves students with a wide array of learning challenges and disabilities. If you are a student who has a disability or learning challenge for which you have documentation or have seen someone for treatment and if you feel you may need accommodations in order to be successful in college, please contact us as soon as possible.

If you are a person who requires assistance in case of an emergency situation, such as a fire, earthquake, etc, please meet with your individual instructors to develop a safety plan within the first week of the quarter.

If you are a student with a documented autism spectrum disorder, there is an additional access program available to you. Contact <u>Autism Spectrum Navigators</u> Email and phone number is on the web page. ASN is located in the Library Media Center in D125.

The DRC office is located in B132 or you can call our reception desk at 425.564.2498. Deaf students can reach us by Skype: the address is **DRCatBC** (NOTE: There is no @ sign...it is actually **DRCatBC**). Please visit our website at <u>Disability Resource Center</u> for application information into our program and other helpful links.

ACCESSIBILITY

The online elements of this course are designed to be welcoming to, accessible to, and usable by everyone, including students who are English-language learners, have a variety of learning styles, have

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disabilities, or are new to online learning. Be sure to let me know immediately if you encounter a required element or resource in the course that is not accessible to you. Also, let me know of changes I can make to the course so that it is more welcoming to, accessible to, or usable by students who take this course in the future.

PUBLIC SAFETY AND EMERGENCIES

Public Safety is located in the K building and can be reached at **425-564-2400** (easy to remember because it's the only office on campus open 24 hours a day—2400). Among other things, Public Safety serves as our Parking Permits, Lost and Found, and Emergency Notification center. Please ensure you are signed up to receive alerts through our campus alerting system by registering at <u>RAVE Alert Registration</u>

If you work late and are uneasy about going to your car, Public Safety will escort you to your vehicle. To coordinate this, please phone ahead and let Public Safety know when and where you will need an escort.

Please familiarize yourself with the emergency postings by the door of every classroom and know where to go in the event of an evacuation. Your instructor will be asked if anyone might still be in the building, so check in before you do anything else. Emergency responders will search for anyone unaccounted for.

If a major emergency occurs, please follow these three rules:

- 1) Take directions from those in charge of the response -We all need to be working together.
- **2)** Do not get in your car and leave campus (unless directed to) Doing so will clog streets and prevent emergency vehicles from entering the scene. Instead, follow directions from those in charge.
- 3) In an emergency, call 911 first, then Public Safety.

Please do not hesitate to call Public Safety if you have safety questions or concerns at any time. You may also visit the Public Safety web page for answers to your questions.

FINAL EXAM SCHEDULE

The final examination for this course will be:

Section 5458 (M/W/F): 9:30 AM – 11:20 AM, Wednesday, June 15, 2016 Section 5457 (T/Th/F): 7:30 AM – 9:20 AM, Thursday, June 16, 2016

The Social Sciences Division directs instructors to adhere to Bellevue College's <u>Final Exam Schedule</u>, and "not give examinations in advance of the regular schedule. A student who is absent from any

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examination held at any time during the quarter may forfeit the right to make up the examination." Please see above for more information regarding the Division's statement on final examinations.

ACADEMIC CALENDAR

The Bellevue College Academic Calendar is separated into two calendars. They provide information about holidays, closures and important enrollment dates such as the finals schedule.

- <u>Enrollment Calendar</u> On this calendar you will find admissions and registration dates and important dates for withdrawing and receiving tuition refunds.
- <u>College Calendar</u>This calendar gives you the year at a glance and includes college holidays, scheduled closures, quarter end and start dates, and final exam dates.

COURSE CALENDAR

The course calendar is attached and also in the Canvas course site. Please note that dates are subject to change.

DECLARE YOUR BUSINESS MAJOR

If you intend to and have not already done so, declare your business major. Make sure you have consulted with an advisor and laid out your courses. See the <u>Business Transfer Website</u>.

ABOUT THE SYLLABUS

BA 240 covers a broad range of subjects and the course schedule is ambitious. The syllabus represents the proposed plan for this term. We may need to be flexible with the schedule particularly with respect to the sequence of topics and time allotted for each.

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