



## BA 240 – STATISTICAL ANALYSIS

### FALL 2017 COURSE SYLLABUS

Instructor: Yancy Chow

Class Time/Place: Monday/Wednesday 10:30 am–12:20 pm, Friday 10:30am–11:20am @ C165

E-mail: [Please use Canvas Mail](#). Please put “BA240” in the Subject line. 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: [yancy.chow@bellevuecollege.edu](mailto:yancy.chow@bellevuecollege.edu)

Phone: 425-564-3072

Office location: C207-I

Office Hours: Tuesday 10:30am-11:30am, Wednesday 9:20am-10:20am, Thursday 10:30am–11:30am, or by appointment

### COURSE INFORMATION

Examines techniques used in decision-making and research. Topics include descriptive and inferential statistics, probability, central tendency, variability, normal and t-distributions, hypothesis testing, and regression. Materials have applications in business, health care, etc.

### BOOKS AND MATERIALS REQUIRED

Textbook: **Statistics**, Twelfth Edition, by McClave and Sincich, Prentice Hall 2013

Software: Excel 2007 or later

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

### COURSE OUTCOMES

After completing this class, students should be able to:

- Identify the relationships between data analytics and the business decision-making process
- Analyze and evaluate research methodologies
- Identify the most common data analytics methods and discuss how each method applies best to specific analytics questions
- Evaluate business problems and determine suitable analytical methods
- Identify the most common technological tools used in data analytics
- 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 conclusions in reports and presentations with attention to details

## 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 (Optional)               |
| Chapter 11/12: | Regression Analysis (Simple / Multiple)       |
| Chapter 13     | Categorical Testing                           |

## HOW OUTCOMES WILL BE MET

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### ATTENDANCE AND PARTICIPATION

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

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### HOMEWORK

Weekly homework will be taken either from the textbook or course handouts. Homework can be found in Canvas *via* the **Homework** or **Modules** link.

Each homework is due **at the beginning of each class** and will be accepted only if you are present in class.

**Late homework will be accepted for up to 1 week after the due date but with an automatic deduction of 3 points. Extraordinary circumstances will be considered on a case-by-case basis.**

**Solutions for each homework** will be posted in the **Modules**. The solutions can also be found under **"Solutions"** from the "Quick Links" on the Canvas Home Page.

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### QUIZZES

There are scheduled quizzes. Each quiz is approximately 15 minutes long. Quizzes are closed book, but students are allowed to use self-prepared notes. Detailed quiz information will be given in class.

**Missed quizzes may not be made up.**

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## PROJECT

The Project includes THREE parts:

- 1) **Team Contract:** Gather in groups (each group should have 3 to 4 team members, maximum 4 people). Select a data set that satisfies the requirements. Split up work evenly and complete the Team Contract. The Team Contract is intended to define each team member's responsibility and provide accountability. For more information, see **Modules → Team Contract** or on the Home Page under "Quick Links", select **Project → Team Contract**.
- 2) **Individual Report:** Each team member chooses 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. For more information, see **Modules → Project Part 2** or select **Project → Individual Report** under "Quick Links" on the Home Page.
- 3) **Team Report:** Work in teams, complete a multiple regression analysis using EXCEL, and complete a group report. For more information, see **Modules → Project Part 2** or **Project → Team Report** under "Quick Links" on the Home Page.

Note: No late project assignments will be accepted.

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## MIDTERM EXAMS AND FINAL EXAM

There are a total of three exams given in class at approximately the 4<sup>th</sup>, 8<sup>th</sup>, and 11<sup>th</sup> 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 are allowed to use notes during the exams. Detailed exam information and instructions will be given in class approximately one week before the exam dates.

## GRADING

Your grade will be based upon a total of 1000 points. Your final grade for the course will be calculated based on all the points earned and then converted to a letter grading scale (A, B, C, etc.). I reserve all the right to determine the final grading scale after all of the points have been earned.

|                 |      |
|-----------------|------|
| Attendance      | 50   |
| Homework        | 80   |
| Quizzes         | 120  |
| Midterm exams 1 | 200  |
| Midterm exams 2 | 200  |
| Project         | 100  |
| Final Exam      | 250  |
| Total           | 1000 |

The final course grading scale should be approximately as shown below:

|           |    |     |
|-----------|----|-----|
| 93 – 100% | A  | 4.0 |
| 90 – <93  | A- | 3.7 |
| 87 – <90  | B+ | 3.3 |
| 83 – <87  | B  | 3.0 |
| 80 – <83  | B- | 2.7 |
| 77 – <80  | C+ | 2.3 |
| 73 – <77  | C  | 2.0 |
| 70 – <73  | C- | 1.7 |
| 67 – <70  | D+ | 1.3 |
| 60 – <67  | D  | 1.0 |
| Below 60  | F  | 0   |

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

**A passing grade will not be given unless ALL REQUIREMENTS of the course are completed.**

## EMERGENCIES

There are exceptions with regard to due dates and other class work for documented emergencies which include death in the family, physical or mental incapacitation, or other extraordinary circumstances. I will accept official documentation on dated and signed hard copy letterhead, 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 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 a description in the subject line 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. If so, please re-send me the message.

Students are responsible for: (a) checking Canvas daily, including the Home Page, Messages, Announcements, Modules, and Grades, and (b) providing timely updates in the event of their absence from class including the stated and verifiable reasons such absence.

## HELP WITH CANVAS

This course relies heavily on resources available on the Canvas course site. Information on Canvas, including helpful tutorials, may be found under “Getting Started Module” in the **Modules** link.

## CLASSROOM LEARNING ENVIRONMENT

### INSTRUCTOR'S EXPECTATIONS

In order to succeed, students should:

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

### CLASSROOM BEHAVIOR

Please be on time to class, both for the sake of your own learning and also 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 try to avoid disrupting the class 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 behavior violates 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 towards 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 silent while in class. Students who use prohibited electronic devices during class will lose Attendance and Participation points. You may not record lectures or discussions. 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 due to a 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 a disagreement arise over what constitutes an unreasonable burden or any element of this policy, parties involved should consult the Department Chair or Dean.

### 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 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 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/](http://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 [Technology Help Desk](#).

## 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 [Autism Spectrum Navigators](#) 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 [Disability Resource Center](#) 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 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 [RAVE Alert Registration](#)

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 on **Wednesday, December 6th from 9:30am to 11:20am**. The Social Sciences Division directs instructors to adhere to Bellevue College's [Final Exam Schedule](#), and "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."

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.

- [Enrollment Calendar](#) On this calendar you will find admissions and registration dates and important dates for withdrawing and receiving tuition refunds.
- [College Calendar](#) 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 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 [Business Transfer Website](#).

## 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.