

# BA 240 – STATISTICAL ANALYSIS FALL 2021 COURSE SYLLABUS

Instructor: Yancy Chow

E-mail: Please use Canvas Mail.

If Canvas is unavailable, you may contact me via email: yancy.chow@bellevuecollege.edu

Online Weekly Office Hours using Teams Meeting: Thursdays, 9:00am-11:30am.

## **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

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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 (Optional)
Chapter 11/12:	Regression Analysis (Simple / Multiple)

### HOW OUTCOMES WILL BE MET

### **DISCUSSION**

Active participation in discussion are critical to success in this class. We will use online Canvas Discussion for our project.

### **HOMEWORK**

After finishing each chapter, there will be an online homework. Homework can be found in Canvas *via* the **Homework** or **Modules** link.

Each online homework is due <u>11:59pm of the due day.</u> Solutions for homework will be posted after the due day. Overdue homework will be an automatic deduction of 3 points. Extraordinary circumstances will be considered on a case-by-case basis.

## QUIZZES

After finishing each chapter, there will be an online quiz. Quiz is from 20 minutes to 30 minutes. Each online quiz is due **11:59pm of the due day**.

Missed quizzes may not be made up.

### **PROJECT**

1) **Team Group:** You will be randomly grouped in Canvas with 4 people in each team group. You can find your team members under "People" on Canvas.

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- 2) Individual Report: Each team member chooses ONE variable (each team member should select a different x variable). Complete a descriptive statistics analysis on your chosen variable using EXCEL and complete an individual report. For more information, see Modules > Project > Individual Project or under "Quick Links > Project" on the Home Page.
- 3) **Team Report:** Work in teams, complete a multiple regression analysis using EXCEL, and complete a group online discussion. More information will be announced under "Discussion".

Overdue individual project or team project discussion will be an automatic deduction of 5 points. Extraordinary circumstances will be considered on a case-by-case basis.

#### MIDTERM EXAMS AND FINAL EXAM

There are a total of three exams given 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).

Detailed exam information and instructions will be given through Canvas.

### **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.

Homework		100
Quizzes		200
Midterm exams 1		150
Midterm exams 2		200
Project and Discussion		100
Final Exam		250
	Total	1000

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

93 – 100%	Α	4.0
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

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 resend 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.

#### 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.

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

Affirmation of Inclusion (https://www.bellevuecollege.edu/inclusion/)

#### REASONS OF FAITH AND CONSCIENCE

Reasonable Accommodations for Reasons of Faith and Conscience: Students who will be absent from course activities due to reasons of faith or conscience may seek reasonable accommodations so that grades are not impacted. Such requests must be made within the first two weeks of the course to the office of the Associate Vice President of Student Affairs (see Bellevue College Policy 2950 (<a href="https://www.bellevuecollege.edu/policies/id2950/">https://www.bellevuecollege.edu/policies/id2950/</a>). In the event you feel you are being discriminated against based on faith or conscious, you may refer to the procedures outlined in the college's Discrimination, Harassment and Retaliation Policy 1440P (<a href="https://www.bellevuecollege.edu/policies/id-1440p/">https://www.bellevuecollege.edu/policies/id-1440p/</a>).

### ANNUAL NOTICE NON-DISCRIMINATION

Bellevue College does not discriminate on the basis of race or ethnicity; creed; color; national origin; sex; marital status; sexual orientation; age; religion; genetic information; the presence of any sensory, mental, or physical disability; or veteran status in educational programs and activities which it operates. Bellevue College is prohibited from discriminating in such a manner by college policy and by state and federal law. All college personnel and persons, vendors, and organizations with whom the college does business are required to comply with applicable federal and state statutes and regulations designed to promote affirmative action and equal opportunity.

Reports of gender and sex-based based discrimination, sexual misconduct, or retaliation by a student should be raised with the Title IX office (see 1440P2 for contact information). In cases

where the impacted party is a student and the responding party is a college employee, the Title IX coordinator will direct the matter to the Office of Human Resources (HR). All other reports, including all reports where the impacted party is an employee, should be raised with the HR. If a report is against personnel in the Title IX office or HR, it should be submitted to the president's office for referral to an alternate designee.

Equal Opportunity (http://www.bellevuecollege.edu/equal/)

### 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 with the Title IX Coordinator any and all information regarding sexual assault and other forms of sexual misconduct (e.g. relationship violence, stalking) that may have occurred on campus or that impacts someone on campus. Students may speak to someone confidentially by contacting the BC Counseling Center at (425) 564-2212. The Title IX Office can be contacted at 425-564-2641 and more information can be found at Title IX (http://www.bellevuecollege.edu/titleix/).

If you have any concerns, you may report to: Report Concerns (https://www.bellevuecollege.edu/reportconcerns/).

### 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.

### 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 fabricationand 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: <a href="Student Code">Student Code</a>.

#### CONFIDENTIALITY AND MANDATORY REPORTING

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### 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 *My*BC. 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.

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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 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</u> 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.

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- **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.

### 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 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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