



## Math 130 - Introduction to Statistics

### Fall 2021 Item #'s 3703 & 3705

**Instructor:** Dr. Patrick Torres

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**Office Hours (via Zoom):** 9:30 am – 10:20 am on Mondays, Wednesdays, and Fridays

**Note:** Email will be the only way to contact me this quarter. I will do my best to respond to your email within 24 hours from when you sent it. If you have not heard from me within 24 hours, you are welcome to email me again. Please note that I generally do not check my emails on weekends and after 5:00 pm on weekdays.

### Course Information

**Description:** Emphasis on gathering and interpreting data. Material has applications in the medical fields, as well as the Social Sciences. Fulfills the quantitative or symbolic reasoning course at Bellevue College.

**Prerequisites:** Placement by assessment or completion of MATH 098 with a C or better.

**Sections:** OAS & OBS

**Optional Zoom Meetings:** We will have optional meetings on Tuesdays and Thursdays from 9:30 am to 10:20 am. Although attendance is not required, regular attendance is encouraged.

### Books and Materials Required

- “Achieve” online learning system (see instructions in Canvas on how to integrate Achieve with Canvas).
- **Textbook:** *The Practice of Statistics in the Life Sciences*, by Brigitte Baldi and David S. Moore, published by W.H. Freeman, 4<sup>th</sup> Edition.
  - Each student has access to an electronic version of the textbook in Achieve. A hardcopy of the textbook is not required.
- A laptop computer with Microsoft Excel installed and/or a graphing calculator (TI-83, TI-84, or equivalent).

## Course Outcomes

- Appropriately display data, describe data with numerical summaries, and use correct vocabulary to describe patterns and trends. Identify and describe sampling methods, types of observational studies, and experiments as well as types of bias.
- Choose and perform the correct calculations for situations involving probabilities from discrete and continuous distributions, confidence intervals, and hypothesis tests.
- Interpret results and clearly state conclusions.

## How Outcomes Will be Met

- **Online Homework:** We will be using the online learning environment “Achieve” to complete online homework assignments and practice quizzes.
- **“In-Class” Worksheets:** Worksheets will occasionally be posted in Canvas. These will emphasize recently covered topics. Your handwritten solutions to the worksheets are not required for submission. However, you are encouraged to work on the worksheets as it will be good practice as you prepare for your exams.
- **Quizzes:** These will be given in Achieve. Due dates for each quiz will be announced in advance. The quizzes will count as 20% of your overall grade.
- **Exams:** There will be two “take-home” exams. The exams will be comprehensive on all material covered prior to the exam date. The topics that will be emphasized on each exam will be announced ahead of time. Each exam will account for 15% of your final grade. **All exams must be taken during their scheduled dates and times which means that they may neither be taken early nor late. Make-up exams will not be given except in cases of serious illness or emergency. Under these circumstances, appropriate documentation (such as hospital or discharge papers) will be required.**
- **Statistics Project:** Each student will work on a project that emphasizes a variety of concepts involving descriptive and inferential statistics. Information about the project will be given after we begin our study of inferential statistics (Chapter 14). The project will count as 20% of your overall grade.

## Tests Dates

- **Exam 1:** Wednesday, October 27
- **Exam 2:** Wednesday, November 24

## Course Project Deadline

The statistics project will be due at 11:59 pm on Tuesday, December 14.

## Extra Credit

- Extra credit may be offered at the discretion of the instructor. If an extra credit opportunity is offered, it will be announced in class and in Canvas.
- Extra credit will never be offered on an individual basis. Please do not contact me about “what you can do” or any “extra credit” to help boost your own grade. It is not fair or academically honest to offer an extra credit opportunity for one student to boost his/her grade and not offer the same opportunity to everyone else in the class. Since you are a college student, you are expected to work hard and earn the best grade you can on the assessments you are given.

## Grading

Grades will be determined by the following weights:

- Achieve Homework ..... 30%
- Achieve Quizzes ..... 20%
- Two Exams ..... 30% (15% each)
- Statistics Project ..... 20%

Letter grades will be assigned as follows. Each percent grade is the minimum grade needed to obtain the corresponding letter grade.

<b>Percent</b>	0	60	67	70	73	77	80	83	87	90	93
<b>Grade</b>	F	D	D+	C-	C	C+	B-	B	B+	A-	A

I will update grades every 1-2 weeks. However, it may be between 5 and 10 business days for exams to be graded. Please exercise patience with that time frame in mind. These grades can be found under the Grades tab on Canvas. After graded material is sent back, you are welcome to inquire about grading. Please do so respectfully and calmly. If you are upset about a grade, I encourage you to wait until you feel better before speaking to me about it or drafting an email of inquiry.

The College Grading Policy is explained in the current Course Catalog and can also be found at this link: [Grading Policy](#)

## Help with Canvas

Students can find help with Canvas by following the link here: [Student Canvas Help](#)

## Instructor's Expectations

- Since all instruction will be given remotely this quarter, regular in-class attendance will not apply. However, it is imperative that you regularly stay in touch with the material, do the necessary assignments, and not fall behind. Be sure to watch out for deadlines.
- If you experience difficulty with the material, I expect you to ask questions right away. Please bear in mind that if a topic is confusing to you, there are probably other people in class who also do not understand it, so it is important for me as the instructor to be aware of this. I am available for appointments to meet virtually if you have questions.
- Have a good attitude. No matter how difficult a job or situation may be, a bad attitude will make it more difficult, while a good attitude will make it easier. With a good attitude, you will ultimately be more successful.

## 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.

## Math Lab Tutoring

This quarter, the Math Lab will be available virtually. Here is a link to a video that describes how students can access the Math Lab: <https://www.youtube.com/watch?v=39vUz3Nin6U>

Here is a direct link to the Math Lab: <https://www.bellevuecollege.edu/asc/math/>

Please keep in mind that the Math Lab tutors will be limited to 15 minutes at a time with each student.

## Affirmation of Inclusion

Bellevue College affirms the diversity of human identities and experiences and is committed to creating spaces free from harassment and discrimination (4000 Institutional Commitment to Inclusion). Furthermore, Bellevue College rejects all forms of racism, homophobia, sexism, xenophobia, religious intolerance, classism, ableism, ageism, language bias, and hate speech or actions that attempt to silence, threaten, or degrade others.

In classroom settings, we might disagree with views shared in the classroom; however, courteous, and respectful behavior and responses are always expected. When providing criticism, it is important to focus on the ideas and not the person.

Faculty are encouraged to disrupt and address hate speech and behaviors. Students are also encouraged to speak up and advocate when they experience, or witness hate speech and behaviors. Faculty, staff, and students also are encouraged to submit a report to the CARE Team regarding any concerns of discrimination, harassment, or inappropriate and disrespectful conduct.

## 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](https://www.bellevuecollege.edu/policies/id2950/) (<https://www.bellevuecollege.edu/policies/id2950/>)). In the event you feel you are being discriminated against based on faith or conscience, you may refer to the procedures outlined in the college's [Discrimination, Harassment and Retaliation Policy 1440P](https://www.bellevuecollege.edu/policies/id-1440p/) (<https://www.bellevuecollege.edu/policies/id-1440p/>).

## Annual Notice Non-Discrimination (Title IX)

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/) (<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/) (<http://www.bellevuecollege.edu/titleix/>).

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

## Division Statements

### The Science Division's Policy on Cheating:

You, the student, are expected to conduct yourself with integrity. If you cheat\*, or aid someone else in cheating, you violate a trust. If you cheat, the following actions will be taken:

1. You will receive a grade of "0" on the work (exam, assignment, lab, quiz, etc.) where the cheating occurred. This grade cannot be dropped.
2. A report of the incident will be sent to the Dean of Student Success. The dean may file the report in your permanent record or take further disciplinary action such as suspension or expulsion from the college.

If you feel you have been unfairly accused of cheating, you may appeal. (For a description of due process, see WAC 132H-120 and/or the Student Handbook.)

*\*Cheating includes, but is not limited to, copying answers on tests or assignments, glancing at nearby test papers, swapping papers, stealing, plagiarizing, lying, use of electronic information storage or communication devices to store or share answers and illicitly giving or receiving help on exams or assignments.*

### Science Division Policy on Netiquette

Students are expected to conduct all online interactions in a mature, professional manner. Professional communication should be void of slang terms, emoticons, statements in all caps, or texting abbreviations. When communicating online, students are expected to be as courteous and respectful to others as you would be in person. Emails and online discussion posts cannot be taken back; be mindful not to send emails or make posts that you might later regret. Instructors reserve the right to take disciplinary action when they determine inappropriate or offensive online behavior has occurred (such as posts or emails that are considered rude, mean, disrespectful and/or discriminatory). Students who violate these expectations will be reported to the Dean of Student Success as a violation of the Student Code of Conduct. The Dean may file the report in your permanent record and/or take further disciplinary action.

## Student Conduct Code 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 Conduct Code of Bellevue College. Examples of disruptive behavior include, but are not limited to, repeatedly talking out of turn, arriving late or leaving early without a valid reason, allowing cell phones to ring, and inappropriate behavior toward the instructor or classmates. The instructor can refer any violation of the Student Conduct Code to the Manager of Student Conduct for investigation. Specific student rights, responsibilities, and appeal procedures are listed in the Student Conduct Code at: [Student Code](#)

## Important Links

### Bellevue College Email and Access to MyBC

See "[Important Links](#)" page online for more information about the E-mail and MyBC, Public Safety, the Academic Calendar, the Academic Success Center, and more.

## Disability Resource Center (DRC)

The Disability Resource Center serves students with disabilities. Common disabilities include physical, neurological (e.g. Autism, ADD/ADHD), and mental health (e.g. depression, anxiety). If you are a student who has a disability or if you think you may need accommodations in order to have equal access in your classes, programs, activities, and any other services, please contact the DRC.

If you require assistance in an emergency, please meet with your individual instructors to develop a safety plan for while in class and contact the DRC to develop a safety plan for while you are elsewhere on campus.

The DRC office is located in building B Room 132. You can contact the DRC by stopping by the office at B132, calling our front desk phone number (425) 564-2498, emailing [drc@bellevuecollege.edu](mailto:drc@bellevuecollege.edu). Deaf students can reach us by calling TTY: (425) 564-6189, or by Skype (account name **DRCatBC**). For more information about the services we offer, including our Initial Access Application, visit our website at [Disability Resource Center](http://www.bellevuecollege.edu/drc) (<http://www.bellevuecollege.edu/drc>).



## **Additional Information**

A note about accessing Canvas from the People's Republic of China: some users have reported that they do not have full access to all Canvas functionality from within the People's Republic of China. This appears to be due to Canvas' parent company, Instructure, not fully committing to Chinese government requirements regarding internet operations within the country. The Chinese government does not inform foreign entities of their policy updates; therefore, Bellevue College cannot anticipate access to Canvas.

If you will be in China during the quarter, you should prepare for intermittent and uncertain access to Canvas.

Source: [Access to Canvas in China](https://support.canvas.fsu.edu/kb/article/1157-access-to-canvas-in-china/) (<https://support.canvas.fsu.edu/kb/article/1157-access-to-canvas-in-china/>)

## **Syllabus Disclaimer**

I reserve the right to change anything on this syllabus. You will be informed of any changes that are made to the syllabus.

# Course Content

- **Part I: Collecting and Exploring Data**
  - Chapter 1: Picturing Distributions with Graphs
  - Chapter 2: Describing Quantitative Distributions with Numbers
  - Chapter 3: Scatterplots and Correlation
  - Chapter 4: Regression
  - Chapter 6: Samples and Observational Studies
  - Chapter 7: Designing Experiments
  
- **Part II: From Chance to Inference**
  - Chapter 9: Essential Probability Rules
  - Chapter 10: Independence and Conditional Probabilities
  - Chapter 11: The Normal Distributions
  - Chapter 13: Sampling Distributions
  - Chapter 14: Introduction to Inference
  
- **Part III: Statistical Inference**
  - Chapter 17: Inference about a Population Mean
  - Chapter 19: Inference about a Population Proportion
  - Chapter 18: Comparing Two Means (if time permits)
  - Chapter 20: Comparing Two Proportions (if time permits)

## Tentative Calendar (this is subject to change)

Mo	W	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<b>October</b>	1	September 27 Begin Ch. 1	28	29 Begin Ch. 2	30	October 1
	2	4 Begin Ch. 3	5	6 Begin Ch. 4	7	8
	3	11 Begin Ch. 6	12	13 Begin Ch. 7	14	15
	4	18 Begin Ch. 9	19 Faculty Professional Development Day <b>NO CLASSES</b>	20	21	22 Begin Ch. 10
	5	25	26	27 Exam #1	28	29 Begin Ch. 11
<b>November</b>	6	November 1	2	3	4	5 Begin Ch. 13
	7	8	9	10	11 Veterans Day <b>NO CLASSES</b>	12 Begin Ch. 14
	8	15	16 Discuss Statistics Project	17	18	19 Begin Ch. 17
	9	22	23	24 Exam #2	25 Thanksgiving Holiday <b>NO CLASSES</b>	26 Thanksgiving Holiday <b>NO CLASSES</b>
<b>December</b>	10	29 Begin Ch. 19 (Optional)	30	December 1	2 Begin Ch. 18 (Optional)	3
	11	6	7 Begin Ch. 20 (Optional)	8	9	10
	12	13 Student Success Day	14 Statistics Project Due	15	16 End of Fall Quarter	17