

MATH 110: Introduction to Statistics

School of Health and Social Sciences

5 Credits

Effective Date Spring 2021

List any Pre-requisite or Co-Requisite: N/A

Access to the Internet is required.

All written assignments must be in Microsoft-Word-compatible formats.

See the library's APA Style Guide tutorial for a list of resources that can help you use APA style.

Faculty Information

Professional experience information for instructors is found under *Faculty Information* in the online course menu.

Contact Information

Contact information for instructors is found under *Faculty Information* in the online course menu.

Course Description

This course is an introduction to the fundamental topics of statistics through real-world examples via qualitative approach for learning how to reason using data and statistics, incorporating quantitative methods to enhance understanding. Topics cover both descriptive and inferential statistics, including data types and measurements, visual displays of data, measures of central tendency and variation, types of distributions, probability, correlation, and hypothesis testing of differences, frequencies, and variations. Students need no prior knowledge of statistics but should have some knowledge of prealgebra mathematics.

Course Resources

Required and recommended resources to complete coursework and assignments are found on the course [Reading List](#). The reading list can be found under *Course Information* in Blackboard as well as from the library homepage (“Find Your Textbook” button).

Note: Required resources that must be purchased by the student are tagged “Purchase from a vendor of your choosing.” Required resources with a direct link, “Available through CityU Library”, are available electronically at no cost to students.

Students in Canada may purchase course resources from the [Canada Bookstore](#), and students outside the U.S. and Canada should contact their advisor or textbook coordinator for additional information.

Bennett, J. O., Briggs, W. L., & Triola, M. F.. (2018). *Statistical reasoning for everyday life* (5th edition) with 18-week MyLab Statistics access. Pearson. ISBN: 9780134494043, 978-0135910474

Course Outcomes

This course will prepare students to:

- Explain basic data ethics
- Critically evaluate statistical data
- Construct graphical interpretations of data
- Present interpretation of data and summarize statistical findings
- Apply statistical problem-solving techniques
- Test hypotheses using appropriate statistical tests
- Formulate projections and recommendations based on statistical analyses

Additional Information

This is a new heading for our syllabus template. Programs are using this to list additional information required by accreditors, or core concepts/knowledge/skills.

Grading Scale

This language is part of the output template and cannot be edited.

The grades earned for the course will be calculated using City University of Seattle’s decimal grading system, found in the current University Catalog (<https://www.cityu.edu/catalog/>).

Grading rubrics with details on how each assignment will be graded are located under *Assignments* and/or in *My Grades* in the online course menu. Students should review the rubric for each assignment prior to completing their work in order to understand how it will be assessed.

Overview of Required Assignments	% of Final Grade
Course activities	25%
Homework assignments	25%
Quizzes	25%
Final exam	25%
TOTAL	100%

Course Policies

Late Assignments

Per School of Health and Social Sciences policy, undergraduate students are required to submit all assignments by the due dates stated in the syllabus. A late assignment is one that is submitted after the due date and time or after any extension has expired.

If circumstances prevent a student from meeting the due date, the student is obliged to contact the instructor and request an extension at least 48 hours prior to the date the assignment is due. Emergency situations will be considered on a case-by-case basis. Being busy, pressured with outside work, or having competing academic commitments are not valid reasons to grant

extensions. A student who receives an extension in advance of the due date and abides by the agreement with the instructor is not subject to late penalties.

Without prior arrangement with the instructor, students who submit assignments late will receive a 15 percent deduction in grade each day or part of the day that the assignment is late. For example, if the assignment is submitted two days late, 30 percent of the grade will be deducted. No late submission is accepted beyond 48 hours past the final day of the course, without instructor approval. Coursework received after one week (seven days) will not be graded and will receive a zero grade.

Participation

Participation is an active engagement in class discussions and activities in the form of sharing new ideas, examples and resources, as well as constructive disagreement and incorporation of course materials and concepts in comments. This requires frequent monitoring of the discussion forum, timely responses, integration of course material and other sources, and ongoing conversations that extend, modify, and add to understanding, creating a vibrant learning community.

Participation through course activities and discussions to exchange knowledge, ideas, and thoughts is an integral, mandatory part of this course. It enhances the student's learning process and experience in this course. Lack of participation will result in a reduction in grade (see grading rubric).

Professional Writing

Assignments require error-free writing that uses standard English conventions and logical flow of organization to address topics clearly, completely, and concisely. CityU requires the use of APA style.

University Policies

Students are responsible for understanding and adhering to all of City University of Seattle's academic policies. The most current versions of these policies can be found in the [University Catalog](#) that is linked from the CityU Web site.

Non-Discrimination & Prohibition of Sexual Harassment

City University of Seattle adheres to all federal, state, and local civil rights laws prohibiting discrimination in employment and education. The University is committed to ensuring that the education environment is bounded by standards of mutual respect and safety and is free from discriminatory practices.

In the U.S., the University is required by Title IX of the Education Amendments of 1972 to ensure that all of its education programs and activities do not discriminate on the basis of sex/gender. Sex include sex, sex stereotypes, gender identity, gender expression, sexual orientation, and pregnancy or parenting status. Sexual harassment, sexual assault, dating and domestic violence,

and stalking are forms of sex discrimination, which are prohibited under Title IX and by City University of Seattle policy. City University of Seattle also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internal or external to the institution. Questions regarding Title IX, including its application and/or concerns about noncompliance, should be directed to the Title IX Coordinator. For a complete copy of the policy or for more information, visit <https://my.cityu.edu/titleix> or contact the Title IX Coordinator.

In Canada, in compliance with the British Columbia Human Rights Code, the Alberta Human Rights Act, WorksafeBC, and the Workers' Compensation Board of Alberta, the University believes that its environment should at all times be supportive and respectful of the dignity and self-esteem of individuals. Discrimination, harassment and bullying conduct, whether through person to person behaviour or via electronic communications such as email or social media is not acceptable and will not be tolerated. As an educational institution, it is our responsibility to cultivate an environment of excellence, equity, mutual respect and to recognize the value and potential of every individual. The University will take all necessary steps to meet or exceed the requirements of the law to prevent discrimination, harassment and bullying. The Respectful Workplace Policy for the prevention of discrimination, harassment and bullying policy and procedure can be found at <https://www.cityu.edu/discover-cityu/about-cityu/> under the Policies section or at <https://www.cityuniversity.ca/about/>.

Religious Accommodations

City University of Seattle has a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The University's policy, including more information about how to request an accommodation, is available in the University Catalog and on the my.cityu.edu student portal. Accommodations must be requested by the 20% mark of this course (e.g. day 14 of a ten-week course, day 7 of a 5-week course) using the Religious Accommodations Request Form found on the student dashboard in the my.cityu.edu student portal.

Academic Integrity

Academic integrity in students requires the pursuit of scholarly activity that is free from fraud, deception and unauthorized collaboration with other individuals. Students are responsible for understanding CityU's policy on academic integrity and adhering to its standards in meeting all course requirements. A complete copy of this policy can be found in the [University Catalog](#) under *Student Rights and Responsibilities* on the page titled *Academic Integrity Policy*.

Attendance

Students taking courses in any format at the University are expected to be diligent in their studies and to attend class regularly.

Regular class attendance is important in achieving learning outcomes in the course and may be a valid consideration in determining the final grade. For classes where a physical presence is required, a student has attended if they are present at any time during the class session. For online classes, a student has attended if they have posted or submitted an assignment. A

complete copy of this policy can be in the [University Catalog](#) under *Student Rights and Responsibilities* on the page titled *Attendance*.

Final Assignment Due Date

Final assignments for each class at CityU must be due on or before the final date of the course as indicated in the university's course information system. Due dates that extend beyond the final date of the course may negatively impact tuition funding for students.

Support Services

Disability Services Accommodations Statement

Students with a documented disability who wish to request academic accommodations are encouraged to contact Disability Support Services to discuss accommodation requests and eligibility requirements. Please contact Disability Support Services at disability@cityu.edu or 206.239.4752 or visit the [Disability Support Services](#) page in the my.cityu.edu portal. Confidentiality will be observed in all inquiries. Once approved, information about academic accommodations will be shared with course instructors.

Library Services

CityU librarians are available to help students find the resources and information they need to succeed in this course. Contact a CityU librarian through the [Ask a Librarian](#) service, or access [library resources and services online](#), 24 hours a day, seven days a week.

Smarthinking Tutoring

CityU students have access to free online tutoring offered through Smarthinking, including writing support, from certified tutors 24 hours a day, seven days a week. Contact CityU's Student Support Center at help@cityu.edu to request a user name and password.

Course Schedule

This is an optional tool for building a course schedule as part of the master syllabus.

Rubrics

Course Activities (Discussions)

Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
	0.00 to 57.49%	57.50 to 76.24%	76.25 to 93.74%	93.75 to 100%
Timeliness of responses 15%	All posts submitted late, not allowing for adequate discussion time.	Posts submitted on time, but on fewer than two days of the assigned week.	Posts submitted on time and on two different days of the assigned week.	Posts submitted on time and on more than two days of the assigned week.
Quality of responses 70%	<p>Superficial and undeveloped responses, lacking insight or thoughtfulness.</p> <p>Off topic or lack connections to course topics.</p> <p>Does not address instructor's comments to original posts.</p> <p>Excessive grammatical or stylistic errors making understanding difficult.</p>	<p>Scattered and poorly developed responses rarely supported by academically appropriate resources.</p> <p>Few connections made to course topics.</p> <p>Sometimes addresses instructor's comments to original posts.</p> <p>Grammatical or stylistic errors interfering with content.</p>	<p>Generally competent responses supported by academically appropriate resources.</p> <p>Adequate connections made to course topics.</p> <p>Most of the time addresses instructor's comments to original posts.</p> <p>Grammatical or stylistic errors do not interfere with content.</p>	<p>Content-rich insightful responses well supported by academically appropriate resources.</p> <p>Detailed connections made to course topics.</p> <p>Always addresses instructor's comments to original posts.</p> <p>Few grammatical or stylistic errors.</p>
Quantity of responses 15%	Some, or all, required quality posts missing.	Initial post and fewer than minimum number of required quality posts.	Required minimum number of quality posts.	Exceeds minimum number of required quality posts.

Homework

Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
	0.00 to 57.49%	57.50 to 76.24%	76.25 to 93.74%	93.75 to 100%
Solve statistical problems 100%	Work does not adequately demonstrate an understanding of course concepts. Solves less than 57.5% of problems correctly.	Work demonstrates a limited understanding of course concepts. Solves less than 76.25% of problems correctly.	Work adequately demonstrates an understanding of course concepts. Solves less than 93.75% of problems correctly.	Work demonstrates an understanding of course concepts with proficiency. Solves 93.75% or more than of problems correctly.

Quizzes

Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
	0.00 to 57.49%	57.50 to 76.24%	76.25 to 93.74%	93.75 to 100%
Solve statistical problems 100%	Work does not adequately demonstrate an understanding of course concepts. Solves less than 57.5% of problems correctly.	Work demonstrates a limited understanding of course concepts. Solves less than 76.25% of problems correctly.	Work adequately demonstrates an understanding of course concepts. Solves less than 93.75% of problems correctly.	Work demonstrates an understanding of course concepts with proficiency. Solves 93.75% or more than of problems correctly.

Final Exam

Criteria	Below Standard	Approaching Standard	At Standard	Exceeds Standard
	0.00 to 57.49%	57.50 to 76.24%	76.25 to 93.74%	93.75 to 100%
Solve statistical problems 100%	Work does not adequately demonstrate an understanding of course concepts. Solves less than 57.5% of problems correctly.	Work demonstrates a limited understanding of course concepts. Solves less than 76.25% of problems correctly.	Work adequately demonstrates an understanding of course concepts. Solves less than 93.75% of problems correctly.	Work demonstrates an understanding of course concepts with proficiency. Solves 93.75% or more than of problems correctly.