Instructor: Marie Clote
email: clotem@bc.edu
Office: Carney 256
Office Hours: Mondays and Thursdays 5:15-5:45 or by appointment.
Telephone: 617 552 3118
Course webpage: on Canvas https://bostoncollege.instructure.com or access through agora, use your bc username and password.
Schedule: Mondays and Thursdays 6:00-9:15
Room: Fulton 453
Note: No class on Monday, May 11, class will meet on Friday, May 15.
No class on Memorial day weekend, class will meet on Friday, May 29.

Course Description MT35301 Statistics: Introduction to inferential statistics covering description of sample data, probability, binomial and normal distributions, random sampling, estimation, and hypothesis-testing. Specific topics are: introduction, frequency tables, frequency histograms, means and other measures of central tendency, variances, z-scores, an introduction to probability (sample spaces, frequency functions, independence, conditional probability, addition and multiplication rules), random variables, binomial distribution, mean, variance, and standard deviation of a probability distribution, the normal distribution, central limit theorem, normal approximation to the binomial, point and confidence intervals for means (small and large sample size cases), proportions, and variances, and one and two sample hypothesis test for means and proportions. Correlation and Regression (if time allows).


MyStatLab (Recommended or instead of the book) MyStatLab access code comes bundled with the book or can be purchased separately along with an ebook at http://www.MyStatLab.com. This gives additional examples and explanations and datasets. Online assignments will be given for each class.

Examinations and Course grading There will be three quizzes, a midterm, and a comprehensive final, weighted as follows: quizzes 40%, midterm 30%, final 30%. Tentative dates are:
Quiz 1-Monday, May 18, Quiz 2: Thursday, May 28, Midterm-Monday, June 01, Quiz 3: Thursday, June 11, Final- Thursday, June 18.

WCAS Grading System
The undergraduate grading system consists of twelve categories: A (4.00), A- (3.67), excellent; B+ (3.33), B (3.00), B- (2.67), good; C+ (2.33), C (2.00), C- (1.67), satisfactory; D+ (1.33), D (1.00), D- (.67), passing but unsatisfactory; F (.00), failure; I (.00), incomplete; F (.00), course dropped without notifying office; W (.00), official withdrawal from course. The graduate grading system is A (4.00), A- (3.67), Excellent; B+ (3.33), B (3.00), good; B- (2.67), C (2.00), passing but not for degree credit; F (.00), failure.

Grade Reports. All students are required to log into the web through Agora to access their semester grades. Students must utilize their BC username and password to log on. If your username or password is not known, the Student Learning and Support Center in the O’Neill Library Computer Center will issue a new one. The SLSC requires a valid picture ID (a BC ID, driver’s license or passport) to obtain your password.
Course Objectives
In successfully completing this course, students will:
1. Identify appropriate descriptive statistics for sample and population data, create frequency tables and histograms, demonstrated by class participation, completion of assignments, and in-class exam performance.
2. Compute simple and conditional probabilities for events under assumptions of the binomial and normal distributions, demonstrated by problem solving in class participation, completion of assignments, and in-class exam performance.
3. Compute point estimates and confidence intervals for population means and proportions under various assumptions, demonstrated by problem solving in class participation, completion of assignments, and in-class exam performance.
4. Set up and test hypotheses for population means and proportions in one- and two-sample contexts, demonstrated by problem solving in class participation, completion of assignments, and in-class exam performance.
5. Demonstrate an appreciation of statistics applied across cultural settings and learn the impact of culture, gender, and age in statistical analysis as demonstrated by response to examples used in class.
6. Demonstrate ethical appreciation of the importance of academic integrity pertaining to mastery of statistics as demonstrated by completing their work independently.

Important Policies
http://www.bc.edu/content/bc/schools/advstudies/guide/academicinteg.html

Scholarship and Academic Integrity
It is expected that students will produce original work and cite references appropriately. Failure to reference properly is plagiarism. Scholastic dishonesty includes, but is not necessarily limited to, plagiarism, fabrication, facilitating academic dishonesty, cheating on examinations or assignments, and submitting the same paper or substantially similar papers to meet the requirements of more than one course without seeking permission of all instructors concerned. Scholastic misconduct may also involve, but is not necessarily limited to, acts that violate the rights of other students, such as depriving another student of course materials or interfering with another student’s work.

Request for Accommodations
If you have a disability and will be requesting accommodations for this course, please register with either Dr. Kathy Duggan (dugganka@bc.edu), Associate Director, Connors Family Learning Center (learning disabilities or AHD) or Dean Paulette Durrett, (paulette.durrett@bc.edu), Assistant Dean for students with disabilities, (all other disabilities). Advance notice and appropriate documentation are required for accommodations. http://www.bc.edu/content/bc/libraries/help/tutoring/specialservices.html.

Attendance
Class attendance is an important component of learning. Students are expected to attend all classes and to arrive by the beginning of and remain for the entire class period. When an occasion occurs that prevents a student from attending class, it is the student’s obligation to inform the instructor of the conflict before the class meets. The student is still expected to meet all assignment deadlines. If a student knows that he or she will be absent on a particular day, the student is responsible for seeing the instructor beforehand to obtain the assignments for that day. If a student misses a class, he or she is responsible for making up the work by obtaining a classmate's notes and handouts and turning in any assignments due.

Course Assignments (readings, exercises and/or experiences) Class will meet twice weekly for 3 1/4 hours. In addition, students are expected to spend about 6-8 hours a week reading for the class and completing the assignments. The assignments and reading assignments will be given in class and on the course website on Canvas.
Schedule: The following schedule is subject to change. The class website will reflect the current schedule along with weekly assignments.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Exams</th>
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</thead>
<tbody>
<tr>
<td>Th. May 14</td>
<td>Summarizing and graphing data, measures of center</td>
<td>1.1-2.3, 3.1-3.2</td>
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<tr>
<td>F. May 15</td>
<td>Measures of variation and position, probabilities, addition rule</td>
<td>3.3, 3.4, 4.1, 4.2, 4.3</td>
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<tr>
<td>M. May 18</td>
<td>Multiplication rule, conditional probability, random variables</td>
<td>4.4, 4.5, 5.1, 5.2</td>
<td>Quiz 1</td>
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<tr>
<td>Th. May 21</td>
<td>Binomial distribution, moments for binomial distribution, normal distribution</td>
<td>5.3, 5.4, 6.1, 6.2</td>
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<tr>
<td>Th. May 28</td>
<td>Sampling distributions, central limit theorem, normal approximation to binomial</td>
<td>6.3, 6.4, 6.5, 6.6, 6.6</td>
<td>Quiz 2</td>
</tr>
<tr>
<td>F. May 29</td>
<td>Point estimates and confidence intervals for a population mean and for a population proportion</td>
<td>7.1-7.4</td>
<td></td>
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<tr>
<td>M. June 01</td>
<td>Catch-up, review, and mid-term</td>
<td></td>
<td>Mid-term</td>
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<tr>
<td>Th. June 04</td>
<td>Introduction to hypothesis testing, type I and II errors, hypothesis test for a proportion</td>
<td>8.1, 8.2, 8.3</td>
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<tr>
<td>M. June 08</td>
<td>Hypothesis testing for a mean: Z and t tests.</td>
<td>8.4</td>
<td></td>
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<tr>
<td>Th. June 11</td>
<td>Confidence intervals and hypothesis testing about 2 proportions, about 2 means: independent samples</td>
<td>9.1, 9.2, 9.3</td>
<td>Quiz 3</td>
</tr>
<tr>
<td>M. June 15</td>
<td>Confidence intervals and hypothesis testing about 2 proportions, about 2 means: independent and dependent samples.</td>
<td>9.3, 9.4</td>
<td></td>
</tr>
<tr>
<td>Th. June 18</td>
<td>Review and final</td>
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<td>Final</td>
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**Boston College Mission Statement**

Strengthened by more than a century and a half of dedication to academic excellence, Boston College commits itself to the highest standards of teaching and research in undergraduate, graduate and professional programs and to the pursuit of a just society through its own accomplishments, the work of its faculty and staff, and the achievements of its graduates. It seeks both to advance its place among the nation's finest universities and to bring to the company of its distinguished peers and to contemporary society the richness of the Catholic intellectual ideal of a mutually illuminating relationship between religious faith and free intellectual inquiry.

Boston College draws inspiration for its academic societal mission from its distinctive religious tradition. As a Catholic and Jesuit university, it is rooted in a world view that encounters God in all creation and through all human activity, especially in the search for truth in every discipline, in the desire to learn, and in the call to live justly together. In this spirit, the University regards the contribution of different religious traditions and value systems as essential to the fullness of its intellectual life and to the continuous development of its distinctive intellectual heritage.
To register for MATH335301 Statistics- Professor Clote:


2. Under Register, click Student.

3. Enter your instructor’s course ID: TBA, and click Continue.

4. Sign in with an existing Pearson account or create an account:
   · If you have used a Pearson website (for example, MyITLab, Mastering, MyMathLab, or MyPsychLab), enter your Pearson username and password. Click Sign in.
   · If you do not have a Pearson account, click Create. Write down your new Pearson username and password to help you remember them.

5. Select an option to access your instructor’s online course:
   · Use the access code that came with your textbook or that you purchased separately from the bookstore.
   · Buy access using a credit card or PayPal.
   · If available, get 14 days of temporary access. (Look for a link near the bottom of the page.)

6. Click Go To Your Course on the Confirmation page. Under MyLab & Mastering New Design on the left, click MATH335301 Statistics- Professor Clote to start your work.

Retaking or continuing a course?
If you are retaking this course or enrolling in another course with the same book, be sure to use your existing Pearson username and password. You will not need to pay again.

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4. Under MyLab & Mastering New Design on the left, click MATH335301 Statistics- Professor Clote to start your work.

Additional Information
See Students > Get Started on the website for detailed instructions on registering with an access code, credit card, PayPal, or temporary access

Students can also register at http://www.MyStatLab.com