

BMCC Mat 150 - OER Version - Course Map - Professor McCarthy

| Module Title | Learning Outcomes Covered | Assessment | OER Provided | Section of OER Used | License |
|---|--|----------------------|------------------|--|---|
| Introduction (2 hours) | Introduction: Overview, Nature of Data, and Uses and abuses of Statistics | quizzes and homework | www.openstax.org | Chapter 1 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |
| Exploring Data & Descriptive Statistics (8 hours) | Exploring data, Frequency distributions, visualizing data, Measures of Center, Measures of Variation, Measures of relative standing. | quizzes and homework | www.openstax.org | Chapter 2 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |
| Probability (4 hours) | Probability: Fundamental addition rule, multiplication rule, conditional probability and counting. | quizzes and homework | www.openstax.org | Chapter 3 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |
| Probability Distributions (6 hours) | Probability Distributions; Random variables; binomial distributions; their means, variance and standard deviations. | quizzes and homework | www.openstax.org | Chapters 4 & 5 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |
| Normal Probability Distributions (8 hours) | Normal Probability Distributions; Sampling distributions and the Central Limit theorem | quizzes and homework | www.openstax.org | Chapters 6 & 7 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |
| Inferential Statistics - Confidence Intervals (8 hours) | Confidence Intervals, Estimates and Sample Sizes | quizzes and homework | www.openstax.org | Chapter 8 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |
| Inferential Statistics - Hypothesis Testing (8 hours) | Steps to test a hypothesis; claims about the mean. P-values and hypothesis tests on proportions | quizzes and homework | www.openstax.org | Chapter 9 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |
| Inferential Statistics - Correlation and Regression (8 hours) | Correlation and Regression | quizzes and homework | www.openstax.org | Chapter 12 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |
| Inferential Statistics - Chi-squared Tests (optional) (2 hours) | Chi-squared tests of independence and goodness of fit | quizzes and homework | www.openstax.org | Chapter 11 (Introductory Statistics by OpenStax) | Creative Commons Attribution License v4.0 |

Textbook:

Introductory Statistics by OpenStax

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<https://openstax.org/details/books/introductory-statistics>