

MATH 408, Spring 2018
(39635R, 39636R, 39637R)

Mathematical Statistics

Instructors

Lecture: MWF 9-9:50, KAP146
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Discussion:
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Course Description

This is an upper-division undergraduate mathematical statistics course that introduces the basic mathematical properties of statistical methods for data analyses including parametric estimation, hypothesis testing, least square estimation, analysis of variance and analysis of categorical data. Weekly homework will be assigned and will be due the following Thursday during the discussion sections. A short quiz will also be given weekly. Two midterm exams are scheduled during the semester. Please make a note of the planned dates for these exams.

Chapters of textbook covered are: 1-14 (tentative)

Testbook

Dennis D. Wackerly, William Mendenhall III, Richard L. Scheaffer, Mathematical Statistics with Applications, 7th Edition, Brooks/Cole, Cengage Learning, 2008

Grading Policy

Homework and Projects: 10%, Quiz: 15%, Midterm Exams: 20% Each, Final Exam: 35%.

First Midterm Exam: Friday, September 21, 9:00AM-9:50AM.
Second Midterm Exam: Friday, October 26, 9:00AM-9:50AM.
Final Exam: Monday, December 10 11:00 AM-1:00 PM.

<i>Monday, August 20</i> Introduction	<i>Wednesday, August 22</i> Laws of Probability	<i>Friday, August 24</i> Laws of Probability
<i>Monday, August 27</i>	<i>Wednesday, August 29</i> Laws of Probability	<i>Friday, August 31</i> Discrete Random Variables
<i>Monday, September 3</i> Labor Day	<i>Wednesday, September 5</i> Continuous Random Variables	<i>Friday, September 7</i> Continuous Random Variables
<i>Monday, September 10</i> Continuous Random Variables	<i>Wednesday, September 12</i> Continuous Random Variables	<i>Friday, September 14</i> Multivariate Probability Distributions
<i>Monday, September 17</i> Multivariate Probability Distributions	<i>Wednesday, September 19</i> Multivariate Probability Distributions	<i>Friday, September 21</i> First Midterm Exam
<i>Monday, September 24</i> Functions of Random Variables	<i>Wednesday, September 26</i> Functions of Random Variables	<i>Friday, September 28</i> Functions of Random Variables
<i>Monday, October 1</i> Functions of Random Variables	<i>Wednesday, October 3</i> Central Limit Theorem	<i>Friday, October 5</i> Central Limit Theorem
<i>Monday, October 8</i> Central Limit Theorem	<i>Wednesday, October 10</i> Estimation	<i>Friday, October 12</i> Estimation
<i>Monday, October 15</i> Point Estimators	<i>Wednesday, October 17</i> Point Estimators	<i>Friday, October 19</i> Point Estimators
<i>Monday, October 22</i> Hypothesis Testing	<i>Wednesday, October 24</i> Hypothesis Testing	<i>Friday, October 26</i> Second Midterm Exam
<i>Monday, October 29</i> Hypothesis Testing	<i>Wednesday, October 31</i> Least Square Estimation	<i>Friday, November 2</i> Least Square Estimation
<i>Monday, November 5</i> Least Square Estimation	<i>Wednesday, November 7</i> Design of Experiments	<i>Friday, November 9</i> Design of Experiments
<i>Monday, November 12</i> Analysis of Variance	<i>Wednesday, November 14</i> Analysis of Variance	<i>Friday, November 16</i> Analysis of Variance
<i>Monday, November 19</i> Analysis of Variance	<i>Wednesday, November 21</i> Thanksgiving	<i>Friday, November 23</i> Thanksgiving
<i>Monday, November 26</i> Analysis of Categorical Data	<i>Wednesday, November 28</i> Analysis of Categorical Data	<i>Friday, November 30</i> Analysis of Categorical Data

This is a tentative schedule. Time and contents of lectures may change significantly.