Term: Fall 2019 (Co-requisite)

Course: DMAT-0317-47010
Course Dates: 8/26/19 – 10/16/19
Class Location: G126
MTWR 11:00am – 12:20pm

Course: MATH-1342-48010
Course Dates: 10/22/19 – 12/12/19
Class Location: C279
MTWR 11:00am – 12:20pm

Instructor: Joe Coreas
Phone: (972) 860-7056
Email: JoeCoreas@dcccd.edu
Office & Office Hours: C227 TBA

STEM Division: C-Building, Room 202 | 972-860-7297

Course Drop Date:
DMAT-0317: 10/3/19
MATH-1342: 11/29/19

Certification Date:
DMAT-0317: 8/31/19
MATH-1342: 10/28/19

Disclaimer: The instructor reserves the right to amend this syllabus as necessary.

Institutional Policies:
Eastfield College Institutional Policies
(www.eastfieldcollege.edu/syllabipolicies)

Course Description:
Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing. Use of appropriate technology is recommended. (3 Lec.)

Prerequisite:
Two years of high school algebra and an appropriate assessment test score or Developmental Mathematics 0310.

Textbook and Other Course Materials:
- **Calculator:** Students are required to have access to a graphing calculator for this course. While other models may be acceptable, the TI-83 and TI-84 calculators are strongly preferred. Instructions on how to use technology to apply concepts are at the end of relevant sections under the heading “Technology Step-by-Step.”
- **MyMathLab**: Microsoft Windows 7 and 8 users should use one of the following browsers with MyMathLab courses-- Chrome, Firefox or Internet Explorer 10 and 9. Click here for other system requirements.
Textbook optional. MyMathLab access code required

Student Learning Outcomes:
After completing this course, the student should be able to:
1. Explain the use of data collection and statistics as tools to reach reasonable conclusions.
2. Recognize, examine and interpret the basic principles of describing and presenting data.
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
4. Explain the role of probability in statistics.
5. Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
6. Describe and compute confidence intervals.
7. Solve linear regression and correlation problems.
8. Perform hypothesis testing using statistical methods.

Core Objectives:
MATH 1342 develops the following Core Objectives:

1. Critical Thinking - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. Communication - to include effective development, interpretation and expression of ideas through written and visual communication.
3. Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Core Objective Development Statements: MATH 1342 develops Critical Thinking, Communication, and Empirical and Quantitative Skills by requiring students to collect, analyze, present and interpret data and probability.

Grading Policy:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
</tr>
<tr>
<td>Quiz</td>
<td>10%</td>
</tr>
<tr>
<td>Exams</td>
<td>40%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
</tbody>
</table>

Grading Rationale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>[90, 100]</td>
</tr>
<tr>
<td>B</td>
<td>[80, 90]</td>
</tr>
<tr>
<td>C</td>
<td>[70, 80]</td>
</tr>
<tr>
<td>D</td>
<td>[60, 70]</td>
</tr>
<tr>
<td>F</td>
<td>[0, 60]</td>
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Final Examination:
A comprehensive, departmental final examination, which will represent at least 25% of the class grade, will be administered in all Introductory Statistics classes.

Policy on Missed Tests and Assignments: No makeup exams unless student notifies instructor of any scheduled appointments in advance. Student must provide official documentation to instructor. Late homework is accepted with a 10% late penalty. After each exam, all previous homework will become unavailable.
ADDITIONAL RESOURCES
The Math Spot (https://www.eastfieldcollege.edu/services/academic-support/tutoring/pages/default.aspx) provides tutoring in Mathematics and Developmental Mathematics. Students are encouraged to take advantage of this service for additional help in their course work. The Math Spot is located in room L200, and the phone number is 972-860-7174. Visit the link above for more information on tutors, hours of operation and policies.

COURSE COVERAGE:

<table>
<thead>
<tr>
<th>Sections</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 – 1.6</td>
<td>Practices of statistics, Observational and experimental studies, Sampling, The design of an experiment</td>
</tr>
<tr>
<td>2.1 – 2.4</td>
<td>Qualitative and quantitative data, Time-Series data displays, Misrepresentation of data</td>
</tr>
<tr>
<td>3.1 – 3.5, 4.1 - 4.2</td>
<td>Measures of central tendency, Measures of dispersion, Grouped data, Measures of position, Outliers, Scatter Diagrams, Correlation, Regression</td>
</tr>
<tr>
<td>5.1 - 5.5</td>
<td>Probability rules, Addition and complement rules, Independence and multiplication rules, Conditional probability and the general multiplication rule, Counting techniques</td>
</tr>
<tr>
<td>8.1 – 8.2; 9.1 - 9.2 &amp; 9.4</td>
<td>Distribution of the sample mean and sample proportion, Estimating a population proportion and mean, Putting it all together</td>
</tr>
<tr>
<td>10.1 - 10.3 &amp; 10.5, 13.1</td>
<td>Language of hypothesis testing, Hypothesis testing for a population proportion and mean, Putting it all together, ANOVA</td>
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Revised: 05/22/19