

Course Syllabus Report



MA913O Statistics 1-1

Meets Graduation Requirements: Yes

Details

Description

Probability and Statistics provides a curriculum focused on understanding key data analysis and probabilistic concepts, calculations, and relevance to real-world applications. Students are challenged to work toward mastery of computational skills, apply calculators and other technology in data analysis, deepen their understanding of key ideas and solution strategies, and extend their knowledge through a variety of problem-solving applications. Course topics include types of data, common methods used to collect data, and representations of data, including histograms, bar graphs, box plots, and scatterplots. Students learn to work with data by analyzing and employing methods of extending results, involving samples and populations, distributions, summary statistics, experimental design, regression analysis, simulations, and confidence intervals. Ideas involving probability — including sample space, empirical and theoretical probability, expected value, and independent and compound events — are covered as students explore the relationship between probability and data analysis. Extended projects allow for more open-ended, extended applications of concepts and skills. Students collect and analyze statistical data about a topic that interests them, and they apply probability concepts in a real-world context. The content is based on the Common Core standards and is aligned with state standards

Are Course Essential Learnings:

UNIT 1: INTRODUCTION TO STATISTICS

Lesson 1: What Is Statistics?

Lesson 2: Collecting Data

Lesson 3: Random Sampling

Lesson 4: Experimental Design

Lesson 5: Introduction to Statistics Wrap-Up

UNIT 2: DESCRIBING DATA GRAPHICALLY

Lesson 1: Categorical Data

Lesson 2: Numerical Data

Lesson 3: Two-Way Frequency Tables

Lesson 4: Describing Data Graphically Wrap-Up

UNIT 3: MEASURES OF CENTER AND SPREAD

Lesson 1: Measures of Center

Lesson 2: Measures of Spread

Lesson 3: Box Plots

Lesson 4: Project

Lesson 5: Measures of Center and Spread Wrap-Up

UNIT 4: DESCRIBING DATA SETS

Lesson 1: Describing Distributions

Lesson 2: Comparing Distributions
Lesson 3: Transforming Univariate Data
Lesson 4: Describing Data Sets Wrap-Up
UNIT 5: MODELING DATA
Lesson 1: Linear Models in Data
Lesson 2: Correlation
Lesson 3: Regression Methods
Lesson 4: Assessing Data Models
Lesson 5: Nonlinear Models
Lesson 6: Transforming Bivariate Data
Lesson 7: Modeling Data Wrap-Up

Default Ale Certificated Teacher: Kim Franett Fergus

Ale Course is Active: 1

Ale Course is Parent Template: 0

District Approved Curriculum Name:APEX

State Course Codes:MAT205 (Statistics)

Ale Course Type:NCAA Approved

State Subject Area:Mathematics

SIS Course Code: MA913O

Ale Course Grading Scale: 9-12 · A = 90—100% · B = 80—89% · C = 70—69% · F = 0-69%

Ale Course Available Credits: 0.5

Ale Course Prerequisites: Algebra I, Geometry, Algebra II

Ale Course Texts: Online Textbook: Apex Learning Statistics and Probability

Ale Course Additional Resources:

Instructional Materials needed: Internet access, computer, printer, printer paper and ink, modern OS/ software/web browser, headphones with microphone- if not built into computer, web cam for virtual sessions and some possible assessments.

Average Number Of Hours Of Study Per Week: 5.00

Syllabus

Ale Course Syllabus:

CEDARS course code 02205

Objectives

Ale Course Objectives:

Students will develop computational fluency, deepen conceptual understanding, and apply Common Core's eight

mathematical practice skills.

Ale Course Standards:

<http://www.corestandards.org/Math/Content/HSS/introduction/>

Ale Course Learning Requirements:

Weekly Work Completion: Scholars will submit original work in all classes each week.

Original Work Submissions: Scholars will only submit their original work. If a scholar uses outside sources in the creation of their original work, citations must be present in the format requested by their teacher.

Weekly Communication: Scholars will communicate weekly with their teachers regarding their academic progress.

Functioning Technology/Required Materials: Scholars will always have constant and consistent access to the functioning hardware, software, technology, and required materials necessary to complete their coursework in all classes.

Academic Integrity: Academic integrity is essential to learning. scholars are expected to complete their own work. Copying, plagiarizing, cheating, or other methods of intentional deception are prohibited and could result in the scholar's removal from the class or iA entirely.

IA Policy1st Offense: The scholar will be contacted by the teacher via phone call, the scholar will be made aware of the plagiarism and examples of how this can be avoided will be discussed. Direct instruction on plagiarism will be delivered by the teacher. iA Administration and other teachers will be made aware of the plagiarism. The work must be redone without plagiarism.

2nd Offense: The scholar and parents will be contacted by the teacher directly and the scholar will have to complete the plagiarized assignment without plagiarism before moving on in the course. iA Administration will be made aware.

3rd Offense: The scholar will be withdrawn from the course or iA depending on the severity and/or frequency of the plagiarism.

WAC (Weekly Academic Contact): State regulations require scholars in online programs to have weekly academic contact with each teacher. This occurs by engaging with the curriculum and online instruction, submitting assignments to make progress in learning, and successfully completing courses. Scholars have multiple opportunities and methods to achieve weekly academic contact and receive teacher

assistance and feedback: email, message, live online sessions, assignments, phone, and/or face-to-face meetings by appointment when applicable and in accordance with social distancing guidelines. In accordance with new state law the iA Weekly Academic Contact policies are changing. To ensure the success of all iA scholars, Weekly Academic Contact is required to remain enrolled at iA.

1st week missed WAC= Notification of missed WAC that informs scholars and parents of the consequences of additional missed WAC. (Step 1)

2nd consecutive or 3rd cumulative week of missed WAC= The scholar and parent must conference with a designee to discuss the missed contact, administer a “screener”, and develop a data-based interventions plan. (Step 2)

5th consecutive OR 6 cumulative of missed WAC= BECCA petition will be filed. (Step 3)

Ale Course Academic Goals:

Activities

Ale Course Learning Activities:

Formative Assessments (FA): Apex Learning online text Studies, Check Ups, Journals, Practice Worksheets and quizzes . Several FA per standard gives learners opportunity to practice skills, receive feedback and remediate to prepare for readiness to show mastery of standards on SA.

Summative Assessments (SA): In Campus, one or two per District identified Power Standard, will be clearly identified. SA should not be taken until students have successfully practiced skills via FA and are prepared to adequately illustrate mastery of the standard(s).

Evaluation

Ale Course Evaluation Methods:

Monthly Progress Review: State law also requires enrolled scholars to maintain monthly forward progress toward completing classes with success. Scholars are expected to complete one monthly module of at-standard work or have completed the teacher-prescribed plan as assigned by the certificated teacher of that course. If the assigned at-standard work is submitted, the scholar will be considered having made Satisfactory Progress. If the assigned work is not submitted and/or is not at standard, the scholar will be considered having made Unsatisfactory Progress.

An overall Monthly Progress Review (MPR) score will be

prepared in the ALE App and notification that they are ready to be viewed will be emailed to every family once a month by the Advisory/Homeroom teacher to communicate overall progress towards mastery and passing of the courses.

Scholars are either making Satisfactory Progress or Unsatisfactory Progress. If a scholar is considered having made Satisfactory progress (by the individual teachers in individual courses) in 50% or more of their courses, they will be considered having made Satisfactory progress overall. If a scholar is considered having made Unsatisfactory progress (by the individual teachers in individual courses) in more than 50% of their courses they will be considered having made Unsatisfactory Progress overall. If a scholar is determined to have made Unsatisfactory Progress for consecutive months, the Advisory/Homeroom teacher will include escalating intervention plans each month in the Monthly Progress Review. If a scholar reaches 3 months of Unsatisfactory Progress they may be withdrawn by the administration.

Timelines:

See Learning Plan Contract in class.

September Timeline:

Complete all lessons and assignments in the September module on your "modules" page in Canvas.

October Timeline:

Complete all lessons and assignments in the October module on your "modules" page in Canvas.

November Timeline:

Complete all lessons and assignments in the November module on your "modules" page in Canvas.

December Timeline:

Complete all lessons and assignments in the December module on your "modules" page in Canvas.

January Timeline:

Complete all lessons and assignments in the January module on your "modules" page in Canvas.

February Timeline:

Complete all lessons and assignments in the February module on your "modules" page in Canvas.

March Timeline:

Complete all lessons and assignments in the March module on your "modules" page in Canvas.

April Timeline:

Complete all lessons and assignments in the April module on your "modules" page in Canvas.

May Timeline:

Complete all lessons and assignments in the May module on your "modules" page in Canvas.

June Timeline:

Complete all lessons and assignments in the June module on your "modules" page in Canvas.