

WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Stats & Probability

Course Number: 10281

Course Prerequisites: Algebra I & II

Course Description: Probability and Statistics will introduce students to exploring data, sampling and experimentation by planning and conducting studies, anticipating patterns using probability and simulation, and employing statistical inference to analyze data and draw conclusions.

Course Estimated Completion Time: 2 segments/32-36 weeks

Suggested Grade Level: Grades 9-12

Length of Course: One Semester

Units of Credit: 1

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:

CSGP 50

To find the CSPG information, go to [CSPG](#)

Certification verified by the WCSD Human Resources Department: ☒ Yes ☐ No

WCSD STUDENT DATA SYSTEM INFORMATION

Course Level: Academic

Mark Types: Check all that apply.

☒ F – Final Average ☒ MP – Marking Period ☒ EXM – Final Exam

GPA Type: ☐ GPAEL-GPA Elementary ☐ GPAML-GPA for Middle Level ☒ NHS-National Honor Society

☒ UGPA-Non-Weighted Grade Point Average ☒ GPA-Weighted Grade Point Average

State Course Code: 12005

To find the State Course Code, go to [State Course Code](#), download the Excel file for SCED, click on SCED 6.0 tab, and chose the correct code that corresponds with the course.

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TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Supplemental Materials: Florida Virtual (Virtual Academy)

Curriculum Document

WCSD Board Approval:

Date Finalized: 9/19/2019
Date Approved: 11/4/2019
Date(s) Revised: 3/8/2021
Implementation Year: 2019-2020

SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

ASSESSMENTS

PSSA Academic Standards, Assessment Anchors, and Eligible Content: The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

Formative Assessments: The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

Effective formative assessments for this course include: Lesson quizzes, projects, discussion boards, and module exams

Summative Assessments: The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

Effective summative assessments for this course include: Semester exams

Major Topics and Concepts:

Segment I Concepts

Module 01: Exploring Data

- Introduction to Statistics
- Measures of Central Tendency
- Measures of Variation
- Displaying Data

Module 02: Collecting Data

- Sampling and Surveys
- Experiments
- Correlation Versus Causation

Module 03: Probability

- Basic Concepts of Probability
- Condition Probability and Two-Way Tables
- The Multiplication and Addition Rule
- Simulations

Segment II Concepts

Module 04: Probability Distributions

- Random Variables
- Binomial Probability Distribution
- Geometric Distribution
- Introduction to Normal Probability Distribution

Module 05: Sampling Distribution

- Sampling Distributions and Proportions
- Sample Means
- Confidence Intervals for Proportions
- Confidence Intervals for Means

Module 06: Inference

- Hypotheses Testing – One Proportion
- Hypothesis Testing – One Sample Mean
- Comparing Two Means
- Scatterplots and Correlation
- Least-Squares Regression