

# RARITAN VALLEY COMMUNITY COLLEGE

## ACADEMIC COURSE OUTLINE

### MATH 072 Statistics Workshop

#### I. Basic Course Information

A. Course Number and Title: MATH 072 Statistics Workshop

B. New or Modified Course: New

C. Date of Proposal: Semester: Fall Year: 2023

**D. Effective Term: Fall 2024**

E. Sponsoring Department: Math and Computer Science

F. Semester Credit Hours: **1 (no credit)**

G. Weekly Contact Hours: **1**

Lecture: 1

Lab: 0

Out of class student work per week: 2

H. ☒ Prerequisite (s): MATH 020 Elementary Algebra or  
MATH 020W Elementary Algebra Workshop or  
Appropriate score on placement test

☒ Corequisite (s): each section of this course is linked to a specific single section of  
MATH 110 Statistics I

☐ Prerequisite (s) and Corequisite (s):

I. Additional Fees: None

J. Name and E-Mail Address of Department Chair and Divisional Dean at time of approval: **Lori Austin** [lori.austin@raritanval.edu](mailto:lori.austin@raritanval.edu); **Sarah Imbriglio** [sarah.imbriglio@raritanval.edu](mailto:sarah.imbriglio@raritanval.edu)

#### II. Catalog Description

**Prerequisite of MATH 020 Elementary Algebra or MATH 020W Elementary Algebra Workshop or appropriate score on the placement test and corequisite of MATH 110 Statistics I.** MATH 072 Statistics Workshop is linked to MATH 110 Statistics I and is designed to enhance the course for students who need algebra support in order to attain prerequisite proficiency for Statistics. Topics are selected to complement topics taught in Statistics I. These topics include but are not limited to radical and rational expressions and equations, and understanding and graphing linear equations.

### **III. Statement of Course Need**

- A. MATH 110 Statistics I has a MATH 030 Intermediate Algebra prerequisite. Students who place as low as MATH 020 Elementary Algebra will need to pass both MATH 020 and MATH 030 before taking a Statistics I course. The MATH 072 Statistics Workshop allows students who place into MATH 030 Intermediate Algebra or pass MATH 020 Elementary Algebra to enroll in a MATH 110 Statistics I course while taking the MATH 072 Statistics Workshop simultaneously as a corequisite. MATH 072 Statistics Workshop provides students with appropriate and timely learning of statistics related Intermediate Algebra topics, allowing them to complete MATH 110 Statistics I with one less semester of developmental math.
- B. This course does not have a lab component.
- C. This course is not designed for transfer.

### **IV. Place of Course in College Curriculum**

- A. This course is not a free elective.
- B. This is not a General Education Course.
- C. This course does not meet any program requirements.
- D. This course does not transfer.

### **V. Outline of Course Content**

- A. Linear Equations and inequalities
  - 1.
  - 2. Slope and Rate of Change
  - 3. Slope-intercept Form
  - 4. Modeling
  - 5. Graphing linear equations
  - 6. Applications
- B. Rational Equations and Expressions
  - 1. Simplifying Rational Expressions

2. Simplifying Complex Fractions
3. Solving Rational Equations
4. Applications

C. Radical Equations and Expressions

1. Simplifying Radical Expressions
2. Solving Radical Equations
3. Applications

D. Formula Equations

1. Solving a formula for one variable with respect to other variables
2. Evaluating formulas by substituting values

**VI. A. Course Learning Outcomes:**

**At the completion of the course, students will be able to:**

1. Solve and/or graph linear equations. (GE-2)
2. Develop the equation of lines in slope-intercept form. (GE- 2)
3. Solve rational and radical equations. (GE-2)
4. Solve application problems. (GE-2)

**B. Assessment Instruments**

1. Homework
2. Quizzes
3. Tests and Final Exam

**VII. Grade Determinants**

- A. Homework
- B. Quizzes
- C. Exams

Students will be assigned a Pass/Fail grade for this course that corresponds to the grade in MATH 110 Statistics I. A grade of A through D in Statistics I will correspond to a P in Math 072, and a grade of F in Statistics I will correspond to a grade of F in MATH 072.

This course may include the following modes of teaching:

- A. lecture/discussion
- B. small-group work
- C. computer-assisted instruction

D. student collaboration

### **VIII. Texts and Materials**

The text and materials for this course will correspond to those used in MATH 110 Statistics I.

- A. All course material will be provided to the student in Canvas.
- B. Scientific calculator

(Please Note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks.)

### **IX. Resources**

No other resources will be needed.

**X. Check One:** ☐ Honors Course ☐ Honors Options ☒ N/A