

## **Salem Community College Syllabus**

### **Section I**

**Course Title:** Discrete Mathematics

**Course Code:** MAT170

**Lecture Hours:** 3

**Lab Hours:** 0

**Credits:** 3

#### **Course Description:**

This course is directed toward mathematics and computer science majors. The course provides tools for formal reasoning as well as providing an early look at the connections between mathematics and computer science and the applications they generate. Topics include counting rules, propositional and first-order logic, set theory, functions (with an emphasis on recursive functions), basic equivalence relations, algorithms, proofs, graphs and trees. An introduction to Boolean algebra and switching circuits is included.

**Pre-requisites:** MAT137 College Algebra

**Co-requisites:** None

**Place in College Curriculum:** This course is required for the Mathematics and Computer Science programs.

**Date of Last Revisions:** March 2018

## **Section II**

### **Course Content Outline:**

- I. Variables, Sets, Relations, and Functions
- II. Logical and Conditional Statements
- III. Quantified Statements
- IV. Elementary Number Theory
- V. Methods of Proof
- VI. Algorithms
- VII. Sequences, Mathematical Induction, and Recursion
- VIII. Counting and Probability
- IX. Graphs and Trees
- X. Combinatorics

## **Section III:**

## **Section IV**

### **General Education Requirements:**

The General Education Goals covered in MAT170 are:

- **Competency 2: Quantitative Knowledge and Skills:** Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

## **Section V**

### **Outcomes Assessment:**

A college-wide outcomes assessment program has been put into place to enhance the quality and effectiveness of the curriculum and programs at Salem Community College. As part of this assessment program, the learning outcomes for this course will be assessed. Assessment methods may include tests, quizzes, papers, reports, projects and other instruments. Copies of all outcomes assessments are available in an electronic assessment bank maintained by the Institutional Research and Planning Office.

## **Section VI**

### **Course Activities:**

### **Course Requirements and Means of Evaluation:**

Students should refer to their instructor's syllabus addendum (to be distributed in class) for specific information regarding the course requirements and means of evaluation for MAT170.

### **Attendance Policy**

Students are expected to attend all scheduled classes and labs. Each instructor will set and express his or her clearly stated and carefully followed attendance policy. The policy will appear on the syllabus the instructor gives to the students.

### **Academic Honesty Policy**

Students found to have committed an act of academic dishonesty are subject to failure in the course, academic probation, and/or suspension from the college. See the Student Handbook for additional details.

### **ADA Statement:**

If you have a 504 Accommodation Plan, please discuss it with your instructor. If you have any disability but have not documented it with the Disability Support coordinator at Salem Community college, you must do so to be eligible for accommodations. To contact the Disability Support Coordinator, call 856-351-2773, or email [disabilitysupport@salemcc.edu](mailto:disabilitysupport@salemcc.edu) to set up an appointment. To find out more information about disability support services at Salem Community College, visit [www.salemcc.edu/students/student-success-programs/disability-support](http://www.salemcc.edu/students/student-success-programs/disability-support).

## **Section VII**

**Required Texts:** For textbook information, please see the SCC Bookstore website.

**Materials/Supplies:** Refer to instructor's syllabus addendum for specific information regarding additional materials/supplies

**Additional Costs:** As necessitated by purchase of materials/supplies