BERGEN COMMUNITY COLLEGE
SCHOOL OF MATHEMATICS, SCIENCE AND TECHNOLOGY
DEPARTMENT OF MATHEMATICS

COURSE SYLLABUS

MAT-130 CONTEMPORARY MATHEMATICS

COURSE DESCRIPTION: Contemporary Mathematics is a study of some of the fundamental concepts in mathematics and computers. Topics considered include set theory, symbolic logic, number systems, principles of counting and probability. Applications of these concepts in various fields of study are included in the course.

CREDITS/HOURS: 3 credits, 3 hours

PREREQUISITES: MAT-031/032 or MAT-035 or equivalent by testing.

GENERAL EDUCATION COURSE: Yes

STUDENT LEARNING OUTCOMES: Upon successful completion of this course, the student will be able to:

1. Use inductive reasoning to make a general conclusion and deductive reasoning to prove a conjecture.
2. Perform set operations and use set theory to solve real-world problems and to analyze survey data.
3. Construct truth tables and use them to test the validity of an argument.
4. Perform operations in non-decimal number systems.
5. Use the Fundamental Counting Principle, permutations, and combinations to determine the number of possible outcomes for a sequence of events.
6. Compute probabilities and use them in real-world applications.

ASSESSMENT MEASURES: Each of the above listed student learning objectives will be assessed by,

1. Written assignments and/or quizzes.
2. Written examinations
3. Other, as announced by the instructor

COURSE GRADE: Students should refer to the instructor’s grading policy which will be distributed during the first meeting of the class.

### COURSE CONTENT:

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### ELECTRONIC DEVICES:
The Department of Mathematics prohibits the use of cell-phones, PDA’s, laptops, headphones, IPODs and other such devices in mathematics classes unless otherwise specified in the grading policy provided by the instructor at the beginning of the semester.

### FACULTY ABSENCE PROCEDURE:
“CLASS CANCELLATIONS” may be found by clicking on the bottom of the Bergen Community College website, [www.bergen.edu](http://www.bergen.edu). A list is also posted in a glass case near A-129, the main corridor on the first floor and in Ender Hall. Students may consult these listings before going to class. If a cancelled class is not listed, it should be reported to the Dean’s Office (A-325) or the Evening Office (L-113).

### WEBSITE:
Go to [www.bergen.edu/math](http://www.bergen.edu/math) for information regarding the Mathematics Department.