COURSE DESCRIPTION: Differential Equations is a study of first order equations, linear equations with constant coefficients, non-homogeneous equations, variation of parameters, series solutions, Laplace Transforms, boundary value problems, Fourier series, systems of differential equations, and applications.

CREDITS/HOURS: 4 credits, 4 hours

PREREQUISITE: MAT-282 Calculus III or by permission of the Department Chair

GENERAL EDUCATION COURSE: No

STUDENT LEARNING OBJECTIVES: Upon successful completion of this course the student will be able to:
2. Calculate solutions to higher-order ordinary differential equations.
4. Utilize the concepts of differential equation theory to model and solve applied problems.

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.

TEXTBOOK: Differential Equations with Boundary-Value Problems, 7th Edition, Zill and Cullen; Cengage Publisher
Optional: Student Solutions Manual, Zill and Wright
COURSE CONTENT:

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REFERENCES:

- Differential Equations with Applications, Ritger and Rose, McGraw-Hill.
- Elementary Differential Equations and Boundary Value Problems, Boyce and DiPrima, Wiley.

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 CLASS CANCELLATIONS may be found at http://www.bergen.edu/classcancellations.

ABSENCE A list is also posted in a glass case near A-129, the main corridor on the first floor and in Ender Hall. If a cancelled class is not listed, it should be reported to the Department Office (A-327) or the Adjunct Office (C-107).

PROCEDURE: Go to http://www.bergen.edu/academics/academic-divisions-departments/mathematics for more information regarding the Mathematics Department.

WEBSITE: Learning Assistance Center Room: L-125  879-7489

STUDENT Math and Science Walk-In Room: L-131  879-7489

SUPPORT Office of Specialized Services Room: L-115  612-5269

SERVICES: fa’16