

## Course Outcomes Guide (COG)

**Course Title:** MAT 206 – Differential Equations

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### Expected Learning Outcomes

**Students will use several methods:**

1. To solve linear differential equations.
2. To solve given types of non-linear differential equations.
3. To use Laplace transformations to solve differential equations.
4. To use differential equations to solve application problems.
5. To classify a given equation and determine a method to use to solve that equation.
6. To work effectively in groups.
7. To use technology, in the form of a computer algebra package, the graphing calculator and other programs, to assist in the problem-solving process.
8. To effectively communicate results and the thought process that led to those results.

**Assessment** (How do or will students demonstrate achievement of each outcome? Please attach a copy of your assessment electronically.)

- There are several common questions that are included on the final exams for each section.

**Validation** (What methods have you used or will you use to validate your assessment?)

- I am not sure how to validate the assessment tools.

**Results** (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

- We have only completed one assessment cycle for this class. Since the course only has about 10 students per year, we were doing a two-year assessment cycle which has just ended this past spring. The data is currently being analyzed.

**Follow-up** (How have you used or how will you use the data to improve student learning?)

**Budget Justification** (What resources are necessary to improve student learning?)