

## Course Description and Outcomes

Math 098

We are proposing a change in the number of credit hours for this course, from 5 credit hours to 4 hours, effective Summer of 2018.

This is a relatively new course for the Math Department and for the college, and our outcomes and course description have also changed since the original outline was submitted in 2014-15.

### Description:

*In our society, we see and hear about important topics and trends that involve numbers. In this class, participants work to understand what these numbers mean. Students will use percentages to make comparisons, interpret and construct graphs to describe phenomena, compare ways of describing quantities through unit conversions, explore the ways we use the idea of "average", and use rates and ratios to describe how things grow and change. Learning happens in small student groups, using technology, and through writing. The class is project-based, meaning that students complete projects to demonstrate what they've learned.*

### Outcomes

Upon successful completion of this course, students should be able to

1. demonstrate a willingness to engage with scenarios involving numbers and graphs<sup>1</sup>,
2. interpret<sup>2</sup> quantitative information presented in written, graphical, and tabular form,
3. create<sup>3</sup> work products that communicate numerical information,
4. demonstrate an appreciation<sup>4</sup> of quantitative displays as useful ways to communicate about real-world phenomena.

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<sup>1</sup> A "willingness to engage" is feeling like you can participate in math, in conversations that are about numbers, data, and trends. This includes being willing to make mistakes in math.

<sup>2</sup> "Interpret" means it comes in through your eyes and goes into your brain and you interpret it there - it is simply the input process - we measure this when students write about what they see. This is just an understanding of a problem to be solved, a graph to be read, or a table to be used.

<sup>3</sup> "Create" is different than interpret - students are synthesizing the information they have been presented with in order to present a coherent picture of a situation or a solution to a problem

<sup>4</sup> "An appreciation of quantitative displays..." is simply the ability to realistically describe the utility of quantitative literacy in typical life in our culture. We do not mean that students can describe jobs that require math or that they see intellectual benefit in math - these are qualities most students arrive with. Rather, we would like students to identify as people that use math and have an extended view of what it means to use math. We would like students to express common mathematical uses rather than highly specialized cases of people using math in their careers.