We live in a world full of complex and ill-defined problems. As educators, we are tasked with the vital role of preparing the next generation to solve unforeseeable future problems. While we cannot know what these problems will be, we can be almost certain that solving them will require creativity.

Our course, a first-year undergraduate mathematical modeling course, prepares students as creative problem solvers. Creative problem solving cannot be learned through a single experience, so we provide our students with a blend of experiences. Our course structure enables creative problem solving through class instruction, during class activities, during out of class assessments, and during in-class assessments. We have found that the combination of these elements within our course structure increases student’s creative problem-solving abilities. We believe that each of these components contributes to students’ gains in comfort with solving open-ended and ill-defined problems like those they will encounter in the real world.

Each of the components of our course, the overarching structure of the course, and our rubric for evaluating creative problem solving will be discussed. (Received September 17, 2019)