Erika L Ward* (eward1@ju.edu) and Daniel Moseley. Contests as Inspiration: Research in the Undergraduate Classroom.

Jacksonville University requires all students to fulfill an Experiential Learning requirement, and one way to do that is to take a “Research Intensive” course. Such courses are described by the university as engaging with primary literature, having students create original work or engage in original research, submitting those works to a public forum, and including instruction in research methods. The mathematics department has chosen to offer research intensive courses that use the Putnam Exam and the Mathematical Contest in Modeling as foci for students engaging in mathematical research.

In these classes, students grapple with problems that are outside of the scope of their usual classroom experiences, and develop tools and techniques to help them solve them. This exploration beyond the sorts of questions they know how to answer, and which may not have solutions, is at the core of mathematical research. A secondary goal of these courses is to encourage the students to engage in traditional undergraduate research either through a capstone project or an REU. Overall, from these we hope that the students get some of the benefit that the high-impact practice of undergraduate research provides. (Received September 24, 2018)