PUBPOL481: Science, Technology, and Public Policy (3 credits)
Offered Winter Semester

How should science and technology be used to solve social and policy problems? What values and assumptions underlie our current understandings of science and technology? Should only experts be involved in science and technology policymaking, or should lay people have a voice? How should policymakers deal with the risks and uncertainties that come from science and emerging technologies (such as biotechnology, nanotechnology, geoengineering)? Through hands-on exercises, organized debate, active participation, and short papers, students will explore these questions while developing skills to analyze and engage with complex science and technology policy issues. This discussion-based course will bring an interdisciplinary perspective to bear on the most pressing science and technology policy challenges of the day, including the regulation of gene-editing technologies and autonomous vehicles, the Flint water crisis, and the deliberate release of genetically modified mosquitos to fight the Zika virus. We will explore both how science and technology are influenced by politics and public policy and how science and technology are used in the policymaking process. This course is intended for upper-level undergraduate students from science, engineering, the humanities, social sciences, and the professional schools. No scientific or technical background is necessary.

For more information about this course, contact Caroline Walsh, Ph.D. at walshce@umich.edu.

Instructor Bio: Caroline is a postdoctoral fellow in the Science, Technology, and Public Policy (STPP) Program at the Ford School. In addition to teaching PUBPOL 481, Caroline is the STPP managing director. A former UM STPP student herself, Caroline holds a PhD from the University of Michigan in Neuroscience. Her dissertation research examined the function of microglia, the resident immune cells of the central nervous system, during nervous system development, using the zebrafish retina as a model. Her policy interests focus on STEM education policy and how to address gender and minority disparities in STEM fields through formal and informal science education.