Department of Mathematical Sciences

Moduli Spaces and Invariant Theory (Math 639)

Instructors: David Carchedi[†] & Sean Lawton[‡]
Office: Exploratory Hall 4216[†] & 4413[‡]
Office Hours: By Appointment
Phone: 703-993-1487[†] & 703 - 993 – 4269[‡]
Email: dcarched@gmu.edu[†] & slawton3@gmu.edu[‡]

Lectures: TuTh 12:30-2:20pm, Exploratory Hall 4106

Recommended Text: An Introduction to Invariants and Moduli, S. Mukai

Prerequisites: Algebra and Topology, or permission from instructors.

Course Description: In this advanced seminar course we will be learning about moduli spaces. We will take two points of view simultaneously. In particular, we will introduce the theory of schemes and algebraic stacks from a categorical perspective while at the same time geometric invariant theory from a more classical perspective. We will end the course by merging these points of view in the study of certain moduli spaces of current interest.

Assessment: As a seminar course, there will be no traditional assignments or exams. Students are expected to be present, active and engaged in the development of ideas. In particular, students may be expected to present and/or write-up solutions to problems, or present certain aspects of the course content. Collaboration and preparing lecture notes will be encouraged.

Disability statement: If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703.993.2474, *http://ods.gmu.edu* . All academic accommodations must be arranged through that office.

University Honor Code: You are expected to follow the GMU Honor Code: *http://oai.gmu.edu/the-mason-honor-code/*

Diversity: You are expected to behave in accordance of the GMU Diversity Statement: *http://ctfe.gmu.edu/professional-development/mason-diversity-statement/*

Privacy: Students must use their MasonLive email account to receive important University information, including messages related to this class. See *http://masonlive.gmu.edu* for more information.