

## **MAT 599 Senior Seminar in Mathematics Spring 2018**

**Professor:** Claudia Miller

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**Lecture:** TH 2:00–3:20, Carnegie 110

### **Office Hours:**

- Tue 12:30–1:30
- Wed 9:30–10:30
- Thu 12:30–1:30
- and by appointment.

**Text:** *An Invitation to Algebraic Geometry*, by Smith, Kahanpää, Kekäläinen, Traves (Springer). This will be on reserve in the library.

**Prerequisite:** Permission of instructor.

**Course Description:** This course is the senior seminar on a topic or topics in mathematics, for students who are advanced and interested in mathematics. Obtaining a grade of A or A- in the course serves as partial fulfillment for Distinction in Mathematics. The topic this semester will be Algebraic Geometry.

**Classes:** The course will be run with substantial input from you:

- (1) Many class days will be seminar-style, with each student speaking in turn and the others participating actively with questions. To prepare, you will read portions of the texts, working out fuller explanations of each paragraph, as advanced math can be quite concise. In class, you will lecture in turns. We will go as slowly as necessary to understand each part fully. The audience should ask about every little thing that is not clearly said. The speaker should make sure he/she does not lose the audience at any point. It takes some experience to realize how slowly one needs to go! It is also okay for the speaker not to have understood every part of the reading. Anything not understood should be worked out during the lectures by the audience and speaker jointly. Most important: We should all shed both our egos and our insecurities for this joint work. We should ask anything we like, even many times; we should interrupt and correct anything, so that we get the fullest and best result out of the lectures. Everyone will get many things wrong; we can only progress by feeling comfortable enough to fail in front of each other.
- (2) On other days we will pause lecturing to develop the material further by working on problems in a group (both concrete examples and proofs).

**Assignments and Grading:** There will be several equal components to your grade:

- (1) The lectures (this includes your lecture preparations, your lecturing, and your participation in the audience during lectures),
- (2) Your work on problems (this includes participation in group work and your homework).
- (3) Final project and presentation on it. A rough draft will be due a few weeks after spring break. The final version will be due on the last day of class. The presentation will be sometime in the last weeks of class.

**Final Exam:** There will be no final exam as this is a seminar class. If necessary, we may use the final exam time **Tuesday May 8 at 10:15 am – 12:15 pm** to finish lecturing or presentations.

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You should inform me **in the first two weeks of class** if

- (1) you have any disabilities for which special considerations are necessary, or
  - (2) you have any religious or sports commitments which may affect your attendance on any days of the semester.
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**Students with disabilities:** If you believe that you need academic adjustments (accommodations) for a disability, please contact the Office of Disability Services (ODS), visit the ODS website <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 or TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting academic adjustments. ODS is responsible for coordinating disability-related academic adjustments and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since academic adjustments may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

**Religious Observances Policy:** SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. An online notification process is available through MySlice (Student Services/Enrollment/My Religious Observances) from the first day of class until the end of the second week of class.

**Academic integrity:** Syracuse University's Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice.

The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level. For more information and the complete policy, see <http://class.syr.edu/academic-integrity/>.