MAT 738 Introduction to Algebraic Geometry, Spring 2015

Instructor: Professor Steven P. Diaz

Office: Carnegie 317C

Office Hours: Tuesday 11:15-12:00 noon, Wednesday 2:30-3:30 pm, Thursday 2:15-3:00 pm.

Office telephone: 443-1583

Email: spdiaz@syr.edu

Text: Algebraic Geometry by Robin Hartshorne, GTM 52, Springer-Verlag.

Final Exam: Tuesday, May 5, 2013 8:00-10:00 am.

I hope to cover Chapter I Sections 1,2,3,4,5,7, Chapter II Sections 1,2, and Chapter III Section 4. Additional material may be covered if time allows.

Requirement for an A: Hand in correct solutions to at least 10 homework problems, including at least one from each of the following sections Chapter I Sections 1,2,3,4,5,7, Chapter II Sections 1,2. You may discuss homework problems with each other (in fact I encourage you to do so); however, you should not hand in a problem unless you feel you contributed to its solution (do not simply copy someone else’s solution). You may consult other books or publications except that you may not consult any source that specifically solves problems from the Hartshorne text.

Learning Outcomes: Learn the material in the indicated sections of the textbook. Become familiar with the basic objects in algebraic geometry: algebraic varieties in affine and projective space, Zariski topology, dimension of algebraic varieties, regular and rational maps between algebraic varieties, singular and nonsingular algebraic varieties, tangent spaces to algebraic varieties, basic intersection theory, sheaves, schemes, and cohomology.

Students with disabilities. If you believe that you need accommodations for a disability, please contact the Office of Disability Services(ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and
generally are not provided retroactively, please contact ODS as soon as possible. Related link: http://disabilityservices.syr.edu/faculty-staff/syllabus-statement/

**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 are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, 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. Related link: http://supolicies.syr.edu/studs/religious_observance.htm

**Academic Integrity** Syracuse University sets high standards for academic integrity. Those standards are supported and enforced by students, including those who serve as academic integrity hearing panel members and hearing officers. The presumptive sanction for a first offense is course failure, accompanied by the transcript notation “Violation of the Academic Integrity Policy”. The standard sanction for a first offense by graduate students is suspension or expulsion. Students should review the Office of Academic Integrity online resource “Twenty Questions and Answers About the Syracuse University Academic Integrity Policy” and confer with instructors about course-specific citation methods, permitted collaboration (if any), and rules for examinations. The Policy also governs the veracity of signatures on attendance sheets and other verification of participation in class activities. Additional guidance for students can be found in the Office of Academic Integrity resource: “What does academic integrity mean?” Related links: The Academic Integrity Policy: http://academicintegrity.syr.edu/academic-integrity-policy/ Twenty Questions and Answers about the Academic Integrity Policy: http://academicintegrity.syr.edu/faculty-resources/ What does academic integrity mean?: http://academicintegrity.syr.edu/what-does-academic-integrity-mean/