

**MAT 541-001 TTh 9:30 – 10:50**  
**Introduction to Number Theory**  
**Spring 2019**

**Instructor:** Professor Jeffrey Meyer, 206F Carnegie  
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**Office Hours:** W 10:00 – 11:30 am, TTh 11:30 am – 12:15 pm, and by  
appointment.

**Text:** *Elementary and (Gentle) Analytic Number Theory*, by J.L. Meyer,  
unpublished, available at SU Bookstore;  
*Number Theory*, by George Andrews, Dover Publications.

**Catalog Course Description:** Prime numbers, greatest common divisors,  
congruences. Euler's function, Fermat's theorem, primitive roots, indices,  
quadratic residues, Legendre and Jacobi symbols, and the quadratic  
reciprocity law.

**PREREQ:** (([MAT 375](#) OR [CIS 375](#)) AND [MAT 331](#)) OR GRADUATE  
STANDING IN MATHEMATICAL SCIENCES

**About This Course:** This course is a first course in number theory. The  
course roughly follows the Meyer text. The Andrews text serves primarily  
as a back-up reference for the material in the course. The material presented  
in class will not necessarily correspond to particular chapters of the book.  
There will be additional topics presented by the instructor and other number  
theoretic digressions. The work you do for the course will include solving  
problems with applications from the material and writing proofs of claims  
(lots of proofs).

**Grading:** I will base your grade on the following.

Two mid-term exams	25% each
Comprehensive final exam	35%
Homework	15%

I will assign your course grade based on the following guidelines:

Score	Letter	Score	Letter
92-100	A	78-79	C+
90-91	A-	72-77	C
88-89	B+	70-71	C-
82-87	B	60-69	D
80-81	B-	0-59	F

**Exam Dates:** Tentative schedule:  
Exam 1 Thursday, February 28, 2019;  
Exam 2 Tuesday, April 23, 2019;  
Final Exam Wednesday, May 8, 2019, 8:00 –10:00am.

**Homework Policies:** I will assign homework regularly; the due date announced when assigned. You must turn in homework at the beginning of class on the date due. I will not accept late homework. I will drop the lowest homework score from your grade calculation. You may work together on homework, but each person is responsible for knowing how to do the problems.

**Additional Calendar information:** No class meeting on Thursday, February 21, 2019 for this class only; other classes on campus are not affected by this.

**Phone, Laptop, Tablet in class policy:** Phones, laptops, and tablets are not allowed to be out during class. I will ask students who repeatedly violate this policy to leave the room.

**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.

**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/>

**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.