

MATH 110: INTRODUCTION TO NUMBER THEORY

Summer 2024 Session 1, 06/24/24 - 07/26/24

Instructor: Amethyst Price	Time: MWF 1:00PM-3:30PM
Email: amrprice@ucsc.edu	Place: McHenry Lib 1350

Office Hours: (Zoom) Tuesdays 1-2PM and by request

Course Description: Prime numbers, unique factorization, congruences with applications (e.g., to magic squares). Rational and irrational numbers. Continued fractions. Introduction to Diophantine equations. An introduction to some of the ideas and outstanding problems of modern mathematics. Prerequisite(s): MATH 100 or CMPS 101. Prerequisites waived for non-UCSC students.

Textbooks: (Optional)

- *Number Theory* by George Andrews
- *An Illustrated Theory of Numbers* by Martin Weissman

Course Policies:

- Attendance of lectures: not required, but highly recommended.
- Required materials: Canvas, Gradescope, Ed Discussion
- Course discussion forum: Ed Discussion - linked to Canvas, will be used for all questions outside of class and office hours.
- Important announcements will be sent via Canvas "Announcements" Make sure to read all of these in a timely manner.
- Curve: None - see assignment drop list and grading scale.
- Participation: Improvements and effort throughout the course - including participation in Ed Discussion posts - will be duly noted and may result in a grade bump.

Assignments:

- Quizzes - Completed weekly. 24 hours given to complete.
- Homework - Submitted via Gradescope
- Reflection Journal - Submitted via Gradescope at the end of the course.
- No midterm
- Final - traditional, taken in class.

Late Policy/Dropped Assignments:

- A 12 hour grace period will be given on all written assignments submitted on Gradescope.
- No other late assignments will be accepted.
- Your lowest quiz score will be dropped at the end of the course.
- No other assignments will be dropped.
- No make-up quizzes or exams will be given for any reason.

Grade Distribution:

Quizzes	15%
Homework	45%
Reflections	10%
Final	30%

Gradescope: You will use Gradescope to submit homework. Get familiar with this tool at https://www.gradescope.com/get_started. Check out the video titled "For students: Submit PDF homework" to review how to upload your image and PDF files to Gradescope.

Ed Discussion: We will use Ed Discussion for all outside communication in this course. If you have a question regarding homework, concepts, logistics, or anything the whole class might benefit from - post it on here. If you email me a question that I think falls under the above description - I will ask you to restate this question on Ed Discussion. Answering questions for your peers is **highly encouraged!** I will not respond to questions immediately, to give you all a chance to reply. I will also not respond to questions after 8 pm (PST). *Active participation in Ed Discussion including contributing to the learning of your peers will be duly noted and may result in a grade bump.*

Important Dates:

Holiday	07/04
Add/Swap Deadline	06/27
Drop Deadline (tuition reversed)	07/01
Request "W" Deadline (no tuition reversed)	07/14
Change Grade Option Deadline	07/21
Grades Posted	08/01
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Final	07/26

Important Summer Differences:

- There is no "Add by Petition" in summer. You must enroll by the deadline above.
- You will **not** be dropped for non-attendance or non-payment. **You must drop yourself.**
- Dropping before the first deadline results in a full-tuition reversal/refund.
- Withdraw posts a W for the grade and full tuition is charged (no refund).
- You cannot withdraw from a course in your portal, you must fill out the DocuSign form on the summer website.

For all other deadlines, here is the summer academic calendar: <https://summer.ucsc.edu/studentlife/index.html>
For questions regarding summer info, email summer@ucsc.edu.

Slug Support Program: College can be a challenging time for students and during times of stress, it is not always easy to find the help you need. Slug Support can give help with everything from basic needs (housing, food, or financial insecurity) to getting the technology you need during remote instruction. To get started with SLUG Support, please contact the Dean of Students Office at 831-459-4446 or you may send us an email at deanofstudents@ucsc.edu.

Slug Help/Technology The ITS Support Center is your single point of contact for all issues, problems, or questions related to technology services and computing at UC Santa Cruz. To get technological help, simply email help@ucsc.edu

DRC: UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student who requires accommodations to achieve equal access in this course, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) via email, preferably within the first two weeks of the quarter. I encourage all students who may benefit from learning more about DRC services to contact DRC by phone at 831-459-2089 or by email at drc@ucsc.edu.

Title IX: The Title IX Office is committed to fostering a campus climate in which members of our community are protected from all forms of sex discrimination, including sexual harassment, sexual violence, and gender-based harassment and discrimination. Title IX is a neutral office committed to safety, fairness, trauma-informed practices, and due process. The Title IX Office is working remotely and is conducting meetings and interviews via zoom and phone. If you want to make a report or request a consult, you can expect the fastest response by using their online reporting link. For questions about making a report, your reporting responsibilities, and/or questions about the UC Policy on Sexual Violence and Sexual Harassment (<https://policy.ucop.edu/doc/4000385/SVSH>) call 831-459-2462.

Academic Honesty: Academic integrity is taken extremely seriously. You CANNOT search or post any of the assignments (quizzes, exams, homework) on any websites (including Chegg!). You CANNOT collaborate during midterm, final, and quizzes. For homework, you are encouraged to discuss problems together but make sure to complete your homework on your own. If any of these rules are not followed, you will receive 0 from that assignment and may be reported for a violation of academic integrity. The details of the policy can be found at https://www.ue.ucsc.edu/academic_misconduct.