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M 524.B01: Topics in Algebra - A Second Course in Elementary Number Theory

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M524 A Second Course in Elementary Number Theory – Fall 2020

Instructor information

Instructor: Kelly McKinnie, Associate Professor (she/her/hers) Office: Math 111 Email: kelly.mckinnie@mso.umt.edu Phone: 243-5694 Office hours: Found on my GOOGLE CALENDAR, along with zoom link. Send email for an appointment outside of office hours.

Course description:

In this course we will study the material that naturally follows a first course in number theory. In particular we will learn the basics of algebraic number theory and analytic number theory.

Textbooks:

I will follow a variety of books throughout the course, offering pdf files of the sources. Two books I plan to use are

- Not Always Buried Deep: A Second Course in Elementary Number Theory by Paul Pollack
- Algebraic Number Theory, A Computational Approach by William Stein, 2016 edition. Posted on our moodle page.

Required assignments and tests:

Homework will be assigned and collected on Moodle, please don't hand in any paper versions. The math department copier also functions as a scanner with a high-quality image. (80% of class grade)

Final projects will be assigned and oral presentations given the last week of class. (20% of class grade)

Attendance

COVID-19

- Mask use is required within the classroom. View UM's face covering policy.
- Each student is provided with a Healthy Griz kit. We expect students to clean their personal work space when they arrive for class, and before they leave the classroom. Refill stations for cleaning supplies/hand sanitizer will be set up around campus please learn where they are and use them.
- Classrooms may have one-way entrances and exits to minimize crowding. Students are discouraged from congregating outside the classroom before and after class.
- Drinking liquids and eating food (which requires mask removal) is strongly discouraged within the classroom.
- Stay home and contact the Curry Health Center at (406) 243-4330 if you feel sick and/or if exhibiting COVID-19 symptoms. If you are diagnosed with COVID-19, follow instructions for quarantine and contact your advisor so they can help you stay on track academically.
- Students, please remain vigilant outside the classroom and help mitigate the spread of COVID-19.

I plan for this class to be a mix of in-person and remote teaching. I will announce the schedule of which days are which in as much advance as I can. There is a large chance that this class will go fully remote at some time. In this event, I will try to hold synchronous meetings at the scheduled time, but even that might prove difficult. Please be prepared for flexibility as we figure out the best way to deliver this class.

Guidelines and policies

University dates and deadlines

You should be aware of the important dates and deadlines posted by the <u>Registrar's</u> <u>Office</u>.

Academic honesty

All students should be familiar with the <u>Student Conduct Code</u>.

Disability modifications

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and <u>Disability Services for Students</u>. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154 or call 406.243.2243. I will work with you and Disability Services to provide an appropriate modification.

Names/Gender Pronouns

If you would like to be called by a different name and/or gender pronoun than I am using for you, please let me know.