DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES UNIVERSITY OF TORONTO MISSISSAUGA

MAT315H5F LEC0101 Introduction to Number Theory Course Outline - Fall 2019

Class Location & Time Tue, 06:00 PM - 07:00 PM DH 2070

Thu, 09:00 AM - 11:00 AM DH 2070

InstructorArul ShankarOffice LocationDH-3056

Office Hours Tue 5:00 PM to 6:00 PM E-mail Address ashankar@math.toronto.edu

Course Web Site

Teaching Assistant Mehmet Durlanik

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Course Description

Elementary topics in number theory such as: prime numbers; arithmetic with residues; Gaussian integers, quadratic reciprocity law, representation of numbers as sums of squares. (This course emphasizes rigour). [36L,12T]

Prerequisite: MAT102H5, MAT134H5/MAT136H5/MAT134Y5/MAT135Y5/MAT137Y5/MAT157Y5/(MAT133Y5,

MAT233H5), MAT224H5/MAT240H5, MAT301H5

Exclusion: MAT315H1, MATC15H3 (SCI)

Distribution Requirement: SCI

Students who lack a pre/co-requisite can be removed at any time unless they have received an explicit waiver from the department. The waiver form can be downloaded from here.

Textbooks and Other Materials

An Introduction to the Theory of Numbers, by Niven, Zuckerman, and Montgomery is recommended.

Assessment and Deadlines

Type	Description	Due Date	Weight
Assignment	Homeworks	On-going	25%
Term Test	In class term test on Oct 24	2019-10-24	25%
Final Exam		TBA	50%
		Total	100%

More Details for Assessment and Deadlines

The term test will be held in class and be 1 hour 45 minutes long. If you miss the test due to a medical reason or some other official reason, then your score from the final will be appropriately scaled and used in it's place.

If a homework is missed for a legitimate reason, then the average scores from the other hws will be used in its stead. Only the five best homeworks will count towards your final score.

The due dates of the homeworks are: September 18, October 2, October 23, November 6, November 20, and December 03.

The first five homeworks are due on Wednesday and must be submitted during the tutorial. The final homework is due December 03 in class.

There will be one bonus problem in each homework set. These are optional. However, they will be graded and will add up to an additional 2% to your final grade. (So your maximum score for the class is 102 percent!)

Penalties for Lateness

10% per day of lateness.

Procedures and Rules

Missed Term Work

To request special consideration, bring supporting documentation to the instructor in person during office hours at least one week in advance.

In case of illness, bring a U of T medical certificate to the instructor within one week of the missed work. The certificate must specify the exact period during which you were unable to carry out your academic work.

Missed Final Exam

Students who cannot write a final examination due to illness or other serious causes must file an<u>online petition</u> within 72 hours of the missed examination. Original supporting documentation must also be submitted to the Office of the Registrar within 72 hours of the missed exam. Late petitions will NOT be considered. If illness is cited as the reason for a deferred exam request, a U of T Verification of Student Illness or Injury Form must show that you were examined and diagnosed at the time of illness and on the date of the exam, or by the day after at the latest. Students must also record their absence on ACORN on the day of the missed exam or by the day after at the latest. Upon approval of a deferred exam request, a non-refundable fee of \$70 is required for each examination approved.

Academic Integrity

Honesty and fairness are fundamental to the University of Toronto's mission. Plagiarism is a form of academic fraud and is treated very seriously. The work that you submit must be your own and cannot contain anyone elses work or ideas without proper attribution. You are expected to read the handout How not to plagiarize (http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize) and to be familiar with the Code of behaviour on academic matters, which is linked from the UTM calendar under the link Codes and policies.

Final Exam Information

Duration: 3 hours Aids Permitted: None

Additional Information

Assignments will be posted at least one week before they are due.

Last Date to drop course from Academic Record and GPA is November 7, 2019.