MATHEMATICS 4P11 and 5P11 (Winter 2019)
Topics in Groups

Professor:	Dr. Yuanlin Li Room MC J422 Email: yli@brocku.ca Home Page: http://spartan.ac.brocku.ca/ ∼ yli/4P11/4p11w19.html
Lectures:	T: 12:00 - 13:30 and R: 14:00-15:30 (MCJ404)
Tutorials:	F: 12:00 - 13:00 (MCJ404) (Start from second week)
Office Hours:	Tuesday: 1:40 - 2:30 pm and Thursday: 10:30 - 11:20 am or by appointment
Textbook:	*An Introduction to the Theory of Groups*, 4th edition, by Joseph J. Rotman, Springer-Verlag, New York, Inc. 1995 (**corrected second printing 1999**)
Prerequisite:	MATH 3P13
Marking Scheme:	Three Assignments: 40% Midterm Exam: 30% Course Project: (regarded as the final exam): 30%
Course Content:	This course covers the following topics: Groups and Homomorphisms, The Isomorphism Theorems, Symmetric Groups and *G-sets, The Sylow Theorems, Normal Series, Finite Direct Products, and Group Extensions. (Chapters 1-6 and *first three sections in Chapter 7) * — optional.
Course Project:	This project will help you develop your research abilities. Students are encouraged to work in groups of two, though you may work on your own. Several topics will be given, and each group will choose a topic from the given list. No two groups should choose the same topic. In order to complete the project, you will need to study a reference book related to your chosen topic. Research papers and books can be found from the library, through an inter-library loan, through an internet search, or by using academic databases such as "mathsciencenet". More detailed instructions will be given in class or in TUT. An outline of your project is due on Feb. 1, a draft copy (optional) is due on March 22, and the final copy is due on March 29. Each group will also be expected to give a presentation of its project. Your marks for the project will be based on both your final copy and your presentation.

Exams and Assignments:

Exam	Date	Mark
Midterm	Tuesday, March 5	30%
HW #	Due Date	Mark
1	Friday, Jan. 25	12%
2	Friday, Feb. 15	14%
3	Friday, Mar. 15	14%

Project	Due Date	Mark
Outline	Feb. 1	2%
Draft Copy	Mar. 22	optional
Final Copy	Mar. 29	20%
Presentation	Last week	8%

Notes:

(1) The midterm exam will be one hour long and held during the regular lecture time. There is no final exam and your research project will be regarded as the final exam.

(2) **This course also emphasizes good mathematical writing. Students will be expected to write their solutions to assignments using a very readable and logical mathematical style**. The assignments are due at 4 pm on the due dates. **No late assignments will be accepted**. The solution to each assignment will be posted on Sakai (the course home page) after the due date. Please attach a cover page to each of your assignments. This should bear (at the top) **your name, student number, course number and assignment number**. A sample assignment cover page can be found in the **Course Home Page**.

(3) **Plagiarism:** You may discuss the problems with other students; however, **the final submitted work must be your own.** Any evidence of copying will result in a mark of 0.

(4) **Withdrawal Date:** Friday March 8, 2019 is the **last date** for withdrawal from the course **without academic penalty.**

(5) **Reading Week – No Classes:** Feb. 18–22.