

MATHEMATICS 4P11 (Fall 2011) (Reading Course)

Topics in Groups

- Professor: Dr. Yuanlin Li
Room MC J422
Email: yli@brocku.ca
Home Page: <http://spartan.ac.brocku.ca/~yli/4P11/4p11f11.html>
- Meeting: W: 3:00 -5:00pm (MCJ422 or J409A)
- 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:
Four Assignments: 50%
Course Project: 50%
- 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 Oct. 8, a draft copy (optional) is due on Nov. 15, and the final copy is due on Nov. 26. 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.

Project and Assignments:

ASNT #	Due Date	Mark
1	Friday, Sep. 30	12.5%
2	Friday, Oct. 21	12.5%
3	Friday, Nov. 11	12.5%
4	Friday, Dec. 2	12.5%
Project	Due Date	Mark
Outline	Oct. 7	1%
Draft Copy	Nov. 18	optional
Final Copy	Nov. 25	35%
Presentation	Last week	14%