

MATHEMATICS 3P12 (Fall 2018)

APPLIED ALGEBRA

Professor: Dr. Yuanlin Li
Room: MC J422
Email: yli@brocku.ca
Home Page: <http://spartan.ac.brocku.ca/~yli/3P12/3p12f18.html>

Lectures: Monday and Wednesday : 12:30 - 2:00 pm (TH257)
Tutorials: Tuesday: 10:00 - 11:00 (WH207)(starting the second week)
Office Hours: MW: 2:00 - 2:50 pm or by appointment

Textbook: *Contemporary Abstract Algebra*, 9th Edition, by J.A. Gallian, Brooks/Cole Cengage Learning, New York, 2017

Prerequisite: MATH 2P12 or permission of the instructor. (Students are strongly recommended to take 2P12 before register in this course)

Marking Scheme:
Four Assignments: 30%
Midterm exam: 30%
Final exam: 40%

Course Content: This is a course of group theory with applications and it covers the following topics:
modular arithmetic, symmetry groups and the dihedral groups, subgroups, cyclic groups, permutation groups, group isomorphism, *frieze and *crystallographic groups, *Burnside's theorem, cosets and Lagrange's theorem, direct products, normal subgroups and factor groups. (chapters 0–9). * — optional.

Exams and Assignments:	Exam	Date	Mark
	Midterm	Wednesday, Oct 24	30%
	Final Exam	TBA	40%
	ASNT #	Due Date	Mark
	1	Friday, Sep. 28	7.5%
	2	Friday, Oct. 19	7.5%
	3	Friday, Nov. 9	7.5%
	4	Friday, Nov. 30	7.5%

Notes:

(1) The Midterm exam will be 60 minutes long and held during the regular lecture time in your classroom. The final exam will be of 2.5 hours duration. **No make up midterm will be arranged.** If a student misses the midterm exam for a very good reason (proof required), the weight will be added to the final exam. To provide a medical certificate, a student should go to "http://www.brocku.ca/webfm_send/1423", download a copy of the medical form and fill out it properly.

(2) To pass the course both a passing mark and a score of at least 30 % on the final are required.

(3) The assignments are due in the box outside Room J434 at 5 pm on the due dates. **No late assignments will be accepted.** The solution to each assignment will be placed on reserve in the library after the due date. You must attach a cover page to your assignment. 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.**

(4) **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.

(5) **Fall Reading Week:** Oct 9-12 (no classes).

(6) **Withdrawal Date:** November 6, 2018 is the **last date** for withdrawal from the course **without academic penalty.**