Objectives of the course: this course is an advanced course in abstract algebra, with the focus on the group theory.

Course Instructor: Dr. Inna Bumagin
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Textbook:

Recommended Textbooks:
- Abstract Algebra, by Dummit and Foote, 3rd edition, Wiley,
- Introduction to Algebra, by Kostrikin and Koblitz,
- Introduction to Abstract Algebra, by Keith W. Nicholson.

TOPICS:
- Review: Group homomorphisms, Isomorphism Theorems,
- Group Actions on Sets,
- Sylow Theorems,
- Abelian groups.

The following classes of groups will be considered: cyclic groups, groups of permutations, groups of matrices, integers modulo n, dihedral groups, solvable groups, p-groups, Abelian groups.

Prerequisites: MATH 2100 with a grade of C- or higher; or (MATH 2108 or MATH 3101 with a grade of B or higher; and MATH 1800 with a grade of B or higher; and permission of the instructor); or permission of the School.

Lectures: Monday and Wednesday 16:00 - 17:30, room SA 314. Lectures begin on September 4 (Wednesday) and end on December 6 (Friday, classes follow a Monday schedule).

Tutorials: Monday 14:30 - 15:30, Mackenzie Building 4236. Tutorials begin on September 9 and end on December 6 (Friday, classes follow a Monday schedule).

Both lectures and tutorials are mandatory.
EVALUATION. Your final grade for the course will consist of

(1) **Term Mark 45%**
(2) **Final Examination 55%**.

There will be **one 80-minute test** tentatively scheduled for Wednesday October 9, during class. There are no make-up tests. The test is worth 20%.

There will be **bi-weekly homework assignments.** Tentative due dates are Mondays September 23, October 7, November 4, November 18, and December 2, in tutorials. The assignments are worth 20%.

For fairness reasons, late homework will not be accepted, but the lowest homework grade will be dropped to compute the final grade.

You are welcome to collaborate with other students on the homework, but please indicate clearly the names of other students you collaborated with and write your solutions separately.

Participation is worth 5%.

**Final Examination** is a 3-hour exam scheduled by the University. The exam is taking place during the period of December 9-21, 2019.

**Note:** you must obtain at least 50% of total and at least 50% of the final exam mark to pass the course.

**Academic Accommodation**
You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

**Pregnancy obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: http://www2.carleton.ca/equity/

**Religious obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: http://www2.carleton.ca/equity/

**Academic Accommodations for Students with Disabilities:** The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the
formally-scheduled exam (if applicable) at http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/ You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodation at http://www2.carleton.ca/equity/

**Academic Integrity.** The University states unequivocally that it demands academic integrity from all its members. Academic dishonesty, in whatever form is ultimately destructive to the values of the University. Students who violate the principles of academic integrity through dishonest practices undermine the value of the Carleton degree. Dishonesty in scholarly activity cannot be tolerated. Any student who violates the standards of academic integrity will be subject to appropriate sanctions.