McGill University
Department of Mathematics and Statistics
MATH 235 Algebra 1, Fall 2016

Instructors. The instructors for this course are:

- Jan Vonk: Burnside Hall 1242, `jan.vonk@mcgill.ca`
- Hao Lee (TA): Burnside 1035, `hao.lee@mail.mcgill.ca`
- Alice Pozzi (TA): Burnside 1008, `alice.pozzi@mail.mcgill.ca`
- Ervin Thiagalingam (TA): Burnside 1007, `ervin.thiagalingam@mail.mcgill.ca`

Textbook. E. Goren, *Algebra I.* Available on MyCourses.

Syllabus. This course will cover the basics of Abstract Algebra; the guiding theme is the notion of abstract algebraic structures and the morphisms between them, of which rings and groups are the simplest prototypes. Some of the key topics in this course include:

- Mathematical reasoning and methods of proof.
- Arithmetic of integers and polynomials. Factorisation and Euclidean algorithms.
- Modular arithmetic and finite fields.
- Rings, homomorphims and ideals. Field extensions.
- Symmetric and dihedral groups. Lagrange and Cauchy's theorem.
- Group actions on sets. Orbits and stabilisers.

Lectures. The class will be held at MAASS 112, on Mondays, Wednesdays, and Fridays 9:35–10:25am, starting on Friday 2 September. Classes end on 5 December.

Tutorials. The tutorials are an integral part of this course. They will start the week of 12 September and continue until the end of the term.

- **235-2**: BURN 1B36, Thursdays 14:35–15:55 (Lee)
- **235-3**: RPHYS 118, Mondays 13:05–14:25 (Pozzi)
- **235-4**: ENGMD 276, Tuesdays 16:05–17:25 (Thiagalingam)

Office Hours. In addition to the lectures and tutorials, the instructors will be available for students in their office at the following times:

- Hao Lee (Burnside 1035) Thursdays 4–5 and Fridays 2–3.
- Alice Pozzi (Burnside 1008) Wednesdays 1–2 and Fridays 1–2.
- Ervin Thiagalingam (Burnside 1007) Tuesdays 5:30-6:30 and Wednesdays 12:30-1:30.
- Jan Vonk (Burnside 1242) Fridays 10:30–12:30.

Assessment. Calculators and other electronic devices will not be permitted during the midterm and exam. Assessment for the course is based on the following:

1. **Assignments**: There will be 5 assignments during the semester, which will be posted on MyCourses. It is the student's responsibility to check MyCourses regularly for assignments to be completed.
2. **Midterm**: There will be one midterm, held during class on Monday 17 October. Please note that the midterm **cannot** be made up if missed for any reason.
3. **Final Exam**: The final examination will be of 3 hours duration. There is no "additional work" option and the grade of incomplete will not be given. A supplemental exam will be available for students registered in a faculty that supports the concept.

Your course mark will be determined by the following formula:

20% Assignments + 20% Midterm + 60% Final Exam

Note that there is **no** 100% Final Exam option; The midterm, however is optional in the following sense: It counts for 20% of the grade *but only if the grade obtained on the midterm exceeds the overall grade you obtain.* Otherwise the midterm will not count and your grade will be determined by 20% Assignments + 80% Final Exam.

Academic Integrity. McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures.
(see http://www.mcgill.ca/integrity/ for more information)

Language Policy. Conformément à la Charte des Droits de l'Étudiant de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté (sauf dans le cas des cours dont l'un des objets est la maîtrise d'une langue). / In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Please note that in the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.