

University of Regina
MATH 842
Algebraic Topology
Winter 2019

Lectures: in RIC 209. Tuesday 8:10 am – 9:25 am and Thursday 8:30 am – 9:45 am

Instructor: Paul Arnaud Songhafouo Tsopmene, Office: CW 307.28, Phone: 306-585-4424, E-mail: ps0748@uregina.ca
(please write Math 842 in the subject line of your emails)

Office hours: Tuesday and Thursday 10:00 am– 11:00 pm or by appointment.

Course Description: A course intended to introduce students to algebraic topology. Topics include homotopy type, fundamental groups, and homology and cohomology groups of topological spaces.

Textbook/References: (1) *Algebraic Topology*, by Allen Hatcher (Chapters 1, 2 and maybe 3). (2) My notes on Introduction to Algebraic Topology.

Allen Hatcher is available at <https://www.math.cornell.edu/hatcher/AT/AT.pdf>

Chapters covered: Chapter 0: Point-Set Topology(a brief recall) Chapter1: Homotopy Type; Chapter2: Fundamental Group; Chapter3: Homology. If time allows, we will cover or start one more chapter entitled: Cohomology.

Assignments, Presentations, Final Exam: Six assignments will be given and will be marked (in average one assignment every two weeks). You will have one week to give me back your assignment. There will be n (n stands for the number of students) presentations (20 minutes each) at the rate of one per person. Presentations will be also marked. I will let you know by email who presents what, and the date as well. The final will be on April 16, 2019 from 9:00 am to 12:00 pm. (location TBA). Examination is closed-book tests. Calculators are not permitted.

Course grade: Your course grade will be computed using the following weights.

Assignments Presentation Final Exam

$$\frac{6}{14} \approx 43\% \quad \frac{4}{14} \approx 28.5\% \quad \frac{4}{14} = 28.5\%$$

Assignments and solutions to assignments will be posted on UR Courses.

University's Mental health information: Any student with a disability who may need accommodations should discuss these with the course instructor after contacting the Coordinator of the Centre for Student Accessibility, RC 251, at 306-585-4631.