University of Toronto-Scarborough

Department of Physical and Environmental Sciences

ESB19H3 Mineralogy - Winter 2016-2017

Instructor: Dr. Heidi Daxberger, EV 466, phone: 416-208-5136, heidi.daxberger@utoronto.ca

Office hours: Tuesday 10.00 am to 11.00 pm, and by appointment

Teaching Assistant: Vikash Narine

Lectures: Monday, 1 pm 3 pm (Room IC120)

Labs: Monday: 3 pm 5 pm (Room EV224, EV222)

Overview:

In this course you will learn about minerals, the smallest and most basic building blocks of our planet. These minerals, with can vary in specimen size from microscopic to a macroscopic scale of meters, form aggregates (rocks), fill cavities and caves, form natural resources (e.g. gold, iron-minerals, rock salt), and are often used in our daily life, for example in form of specifically developed concrete mixtures, without being recognized as such. This course will help you to better understand mineral growth, their distinct structure and chemical composition, how they associate with one another, how minerals aggregate to form rocks and what applications minerals are used for.

We will start with an introduction to the study of crystallography, as it is an important tool of Earth and material sciences. This will include the delineation of specific crystal symmetries and morpholoterial

Readings:

Required text: Earth Materials Introduction to Mineralogy and Petrology, C. Klein &

A. Philpotts, 2013, Cambridge Univ. Press

 Final Exam
 28%

 Total
 100%

ROM visit and Mineral Presentation:

Visit the ROM (downtown Toronto) before February 1th, 2017
 (Student free admission for post-secondary students on TUESDAYS!!!:
 https://www.rom.on.ca/en/visit-us/accessibility/community-access-network

 Bring your student ID and picture ID!!!)

- At the ROM: Go to the mineral collection and select your favorite 2 minerals (1 will be chosen!). Take notes and take a picture.
- Tell me before February. 3rd which mineral you chose and get a date for your presentation.
- Make a 5-7 min power point presentation (3 slides) about your favorite mineral (incl. properties/characteristics) more on the format see blackboard!
- Present your mineral in the allocated presentation time in the beginning or at the end of the respective lecture.

Lectures and Lab exercises:

ALL students are expected to attend ALL lectures. It is the responsibility of the student to ensure that notes are obtained for any classes missed.

Labs are mandatory for all students and the respective assignments are graded. During tutorials you will have a guidance throughout the materia

Need in-depth or department specific assistance? Contact Sarah Forbes, Liaison Librarian for Physical and Environmental Sciences: http://uoft.me/smforbes

Blackboard:

Lecture and lab material will be posted on and Online Quizzes will be done through blackboard. Please check daily for updates.

Blackboard: https://portal.utoronto.ca

Academic Integrity Statement:

Academic integrity is one of the cornerstones of the University of Toronto. It is critically and important both to maintain our community which honours the values of honesty, trust, respect, fairness and responsibility and to protect you, the students within this community, and the value of the degree towards which you are all working so diligently. According