

S. D. Carr

sharon.carr@carleton.ca

Weekly office hours (via Zoom or Big Blue Button) will be scheduled to fit class availability in addition to appointments or email questions scheduled upon request via email.

ERTH 2406: GEOLOGY AND MAP INTERPRETATION – WINTER 2021

Welcome to Geology and Map Interpretation. We focus on documenting and interpreting fundamental information about rocks and map patterns in order to interpret geologic and tectonic history. My email is Sharon.Carr@carleton.ca. I will be available during weekly office hours, during the lab period or by appointment, after classes or labs and via email. Below you will find information about the course and how you can contact the Teaching Assistants. *We want to see you succeed in this course and will do whatever we can to keep you engaged, help build collegiality within the class and help you learn!*

COURSE DESCRIPTION:

ERTH 2406 [0.5 credit] Geology and Map Interpretation: Analysis and interpretation of geological features and processes using rocks, maps and cross sections. Introduction to computational methods. Prerequisites: ERTH 2102 and GEOM 2007 (prior to April 2019) or GEOM 1004/ERTH 2004. Lecture two hours a week and laboratory three hours a week.

COURSE DELIVERY:

Lecture: 9:35 - 11:25 pm (Friday morning): lectures as well as in-class exercises (individual, or pairs or teams - in breakout rooms; class-wide polls) will be held via Zoom during the scheduled class period. The material, zoom links and the formal lecture part of the class (that will be recorded for anyone unable to attend lectures) will be posted on cuLearn.

Laboratory: 2:35 - 5:25 pm (Friday afternoon): laboratories will be conducted via Zoom Button during the scheduled laboratory period. The zoom links as well as the recorded lab introductions will be posted on cuLearn.

Teaching Assistants (weekly office hours will be posted on cuLearn and appointments at other times are available upon request; emails will be answered):

Bruna Borba de Carvalho (brunaborbadecarvalho@cmail.carleton.ca). Brunna has a double TA and will be co-instructing during the lecture as well as the weekly labs. In addition to hosting a regularly scheduled weekly office hour, she will be available for extra office hours by email request or to answer emails.

Chris Jenkins and Sarah have a single TA. Each will be working with you during about 2/3 of the labs.

Chris Jenkins (ChrisJenkins@cmail.carleton.ca)

Sarah Mount (SarahMount@cmail.carleton.ca)

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MARK DISTRIBUTION:

▪ Course participation including reading assignments	20%
▪ In-class polls, quizzes & assignments	not graded
▪ Lab and field manual term project	15%
▪ Laboratory assignments & projects	30%
▪ Map interpretation lab project - final report	10%
▪ Quizzes	25%

To pass the course: a passing grade of $\geq 50\%$ is required in all term work (i.e. reading assignments, labs, projects, reports and quizzes - collectively).

Late Assignment and Lab Policy. Late assignments and labs will be accepted without penalty in the instance of illness, emergencies, technical issues, etc. **but you are required to contact S. Carr within 24 hours** (e.g., via email) to make arrangements. Otherwise, 10% per day will be deducted for each day late. Assignments and labs will not be accepted more than 6 days after the normal due date.

Conflicts with Course Requirements:

Students with conflicts for any examination or quiz must have a note from an employer or a medical certificate to write the exam or quiz at another date. Unless caused by illness, **all conflicts must be reported to the instructor prior to the exam or quiz date**. If an exam or quiz is missed due to illness contact regarding a deferral must be made within 24 hours of the exam or quiz deadline. In the case of a serious illness, see the rules concerning deferral of an exam or assignment at <https://carleton.ca/registrar/specialrequests/deferral/>.

COURSE REQUIREMENTS – MY STUDENT RESPONSIBILITIES ARE:

- **Act with academic integrity**, which is a commitment, even in the face of adversity, to the values of honesty, trust, fairness, respect and responsibility.
- **Be equipped:** i.e., computer with camera & microphone; mineral and rock identification resources (e.g. from other courses); lab manual; geometry and drafting supplies, etc.
- **Email sharon.carr@carleton.ca or send a message right away or within 24 hrs** to advise of absences due to illness, emergencies and technical or other difficulties.
- **Be aware of the backup plan(s)** in the case of technical difficulties.
 - ✓ **If I have technical difficulties during class or lab time**, I will contact the Professor or Teaching Assistants immediately, in the moment, via chat, text or email for trouble shooting or information about using an alternate platform.

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- ✓ ***If that the Professor or Teaching Assistants have technical difficulties during class or lab time***, I will check my email and cuLearn for instructions. If the class is not resumed, then a recorded session will be posted.
- ***Regularly check the cuLearn webpage and my Carleton emails for:***
 - ✓ a synopsis of the weekly rollout including
 - weekly objectives and deadlines;
 - 'video conference' links (e.g. zoom);
 - a list of resources and tools to have at hand for each lecture and lab (e.g., classification schemes, geometry set including compass, protractor and calculator, graph and tracing paper, stereonet, lab manual, maps, etc.)
 - office hours
 - student activities
 - ✓ lecture topics and pre-lecture assignments (e.g., reading assignments, video links, homework, etc.);
 - ✓ pre-laboratory and laboratory assignments;
- ***Participate in the weekly lectures:*** either the synchronous lectures and in-class activities or the posted lecture material.
- ***Participate in the weekly laboratories:*** either the synchronous laboratories or the posted lab material.
- ***Complete all course participation activities*** including reading assignments.
- ***Prepare each week for lectures and laboratories*** including assembling required tools & materials.
- ***Log in on time*** for synchronous lectures and laboratories.
- ***Hand in laboratory and reading assignments on time.***

ERTH 2406 COURSE LEARNING OUTCOMES:

By the end of this course, I will be able to:

1. Create (by hand or computer) geological and subsurface maps, cross sections and 3D illustrations from geological information.
2. Identify and describe minerals, textures, and primary or secondary structures in rocks. Classify, name and interpret sedimentary, igneous and metamorphic rocks.

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3. Read geologic maps, cross-sections, 3D illustrations and legends (i.e. recognize map patterns; assess contact relationships; evaluate sedimentary, igneous, metamorphic and/or structural history) and propose a geological history.
4. Interpret and evaluate structural and geological history from rocks, maps, geophysical information and reports.
5. Distinguish between observations and interpretations. Write and explain accurately and concisely about rocks, map areas or projects; justify and assess conclusions.

LABORATORY MANUAL (on reserve in the library):

Rowland, S.M., Duebendorfer, E.M. and Schiefelbein, I. 2007. Structural Analysis and Synthesis, A Laboratory Course in Structural Geology. Third Edition. This book contains required readings and lab exercises for both 2406 and 3806 Structural Geology next year. **We will cover the first six chapters in EARTH 2406. It is well worth having a copy.** Available digitally from the library; may be purchased online.

REQUIRED TOOLS:

Computer equipped with camera and microphone. Geometry set (i.e., with scales in metric and English, protractor); calculator; drafting and mapping tools (e.g., fine point pencils with hard 2H pencil leads, pencil sharpener, eraser, colored pencils); stereonet, graph paper, tracing paper, mineral and rock identification and classification resources, etc.

Appropriate notebook for term lab and field manual project. Compile and organize your own laboratory and field manual, in a field notebook, using laboratory handouts and resource materials. This manual will be useful during this course as well as future courses and field work and is required for EARTH 2802. Include the Geological Time Scale, mineral abbreviations, modal percent estimation charts, grain size and shape classifications, rock and structural naming classifications, and geological symbols, etc.

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2021 WINTER TERM DATES

Jan 6	University reopens
Jan 11	Winter term classes begin
Jan 25	Last day for registration in winter term classes; last day to change courses
Jan 31	Last day for withdrawal with full fee adjustment
Feb 15	Statutory holiday – University closed
Feb 16 -19	Winter break – no classes or labs
Mar 19	Last day to submit accommodation requests to PMC
Apr 2	Statutory holiday for Good Friday – University closed (ERTH 2406 class rescheduled to Wed Apr 14)
Apr 14	Winter term ends; classes follow a Friday schedule; last day to hand in term work (last ERTH 2406 class of the term)
April 16-27	Final exam period (<i>no final exam scheduled in this course</i>)

POLICIES, ACADEMIC INTEGRITY AND PLAGERISM

Recording policies of video conference activities:

This class or portions of this class and laboratory introductions will be recorded by the instructor or TAs for educational purposes. These recordings will be shared only with students enrolled in the course via the course cuLearn page.

Unauthorized student recording is prohibited. Students requesting the use of assistive technology as an accommodation should direct such requests to the [Paul Menton Centre](#).

Unauthorized student recording of classroom or other academic activities (including advising sessions or office hours) is prohibited. Unauthorized recording is unethical and may also be a violation of University policy. Students requesting the use of assistive technology as an accommodation should contact the [Paul Menton Centre](#). Unauthorized use of classroom recordings – including distributing or posting them – is also prohibited. Under the University's [Copyright Policy](#), faculty own the copyright to instructional materials – including those resources created specifically for the purposes of instruction, such as lectures slides, lecture notes, and presentations. Students cannot copy, reproduce, display, or distribute these materials or otherwise circulate these materials without the instructor's written permission. Students who

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engage in unauthorized recording, unauthorized use of a recording, or unauthorized distribution of instructional materials will be referred to the appropriate University office for follow-up.

Academic misconduct

The University has adopted a policy to deal with allegations of academic misconduct. Please review and familiarize yourselves with Carleton's Student Academic Integrity Policy:

<https://carleton.ca/secretariat/wp-content/uploads/Academic-Integrity-Policy.pdf>

as well as that of the Faculty of Science: <https://science.carleton.ca/academic-integrity/>

These policies are binding on all students.

Sanctions are severe and are strictly enforced.

- **First offence, first-year students** (< 4.0 credits completed): No credit for assessment(s) in question, or a final grade reduction of one full letter grade (e.g., A- becomes B-), whichever is a greater reduction
- **First offence (anyone else): A grade of F in the course**
- **Second offence (anyone): A grade of F in the course and a one-term suspension from studies**
- **Third offence: Expulsion from the University**

The Academic Integrity Policy:

- describes those actions and behaviors which violate Carleton University's standards of academic integrity;
- defines the responsibilities of various offices and individuals in upholding the policy;
- specifies the procedures and processes to be followed when an allegation of violating these standards has been made against a student;
- specifies the sanctions that may be applied to a student who has been found to have violated these standards; and,
- describes the appeal and petition processes open to students who feel they have not been treated fairly under this policy.

The instructor is required to report all incidents (or suspected incidents) directly to the Dean of Science. All work handed in must be your own work. Plagiarism (i.e., presenting another's ideas, arguments, words or images as your own), violation of exam rules, misrepresentation of facts for any academic purpose, using unauthorized material, impersonation, fabricating or misrepresenting research data, disruption of academic activities, obstruction or interference of scholarly activities of another student, unauthorized co-operation or collaboration, or completing work for another student are viewed as being particularly serious, and the sanctions imposed are accordingly severe. Students who infringe the Policy may be subject to one of several penalties including: suspension from a program; withdrawal from courses; a grade of

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zero, a failure or a reduced grade for a piece of academic work; completion of a remediation process, etc.

In particular:

- ✓ My answers to questions, exercises and assignments will be my own work.
- ✓ I will NOT share questions, answers or assignments with anyone else or post them anywhere on the internet, discussion boards, etc.
- ✓ I will NOT share course content (videos, lecture slides, or any other material) with anyone else or post them anywhere on the internet.
- ✓ I am aware of sanctions that may be used if I engage in any activity that will dishonestly improve my results in this course.

COPYRIGHT OF COURSE MATERIALS

Classroom teaching and learning activities, including lectures, discussions, presentations, etc., by both instructors and students, are copy protected and remain the intellectual property of their respective author(s). All course materials, including PowerPoint presentations, outlines, and other materials are protected by copyright and remain the intellectual property of their respective author(s).

Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder.

ACADEMIC ACCOMMODATIONS

<https://students.carleton.ca/course-outline>

Requests for 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

Please contact your instructor 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: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

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Religious obligation

As soon as you receive your course syllabus, identify any potential conflicts between your religious obligations and course requirements. Please contact your instructor 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:

carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your **Letter of Accommodation** at the beginning of the term. **Contact me (Sharon Carr) at least two weeks before the any exams during the term to ensure that accommodation arrangements are made, and for final exams notify me and submit requests to PMC by March 19th.**

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor 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. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>