University of Alberta

EAS 233 Geologic Structures Winter 2012

Course Objectives

EAS 233 Geologic Structures is about the structures in the Earth's crust that have been produced, mostly, by the action of the Earth's tectonic systems over geologic time. In this course you will learn:

- to make accurate descriptions of all types of structures exposed at the Earth's surface
- to use this information to understand three-dimensional structures within the Earth's crust;
- to make basic interpretations of the changes that produced these structures over geologic time.

Course Description:

Orientation, measurement description, and analysis of planar and linear structures in rocks, including folds, faults, and fabrics. Introduction to mapping and the collection of structural information. Construction of geologic maps and cross-sections. Introduction to stereographic and equal-area projections. Basic concepts of strain and stress in rock deformation.

Prerequisites:

To take this course you must have taken either EAS 100 and 105, or EAS 210, or an approved transfer equivalent. If you have not completed either of these options, and you wish to remain in EAS 233, you *must* complete a waiver request form (available from a rack outside ESB 1-26) indicating your relevant background. Waiver forms require instructor approval, and you must consult with me before I will approve any waiver request.

Note that by attending this course you represent that you have completed the prerequisites or have received an official waiver from the instructor and the department.

People

Instructor:	John Waldron
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Web Page:	www.ualberta.ca/~jwaldron
	courses.eas.ualberta.ca/eas233
Office Hours:	TuWTh 3.00-4.00

Teaching assistants	Rameses d'Souza	ESB 2-04B	rdsouza@ualberta.ca
	Sharlene Hartman	CCIS 3-019	seh3@ualberta.ca
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Technical assistance	Marilyn Huff	ESB 3-04A	huff@ualberta.ca

Policy about course outlines can be found in section 23.4(2) of the University Calendar.

Places and times

Lectures CCIS 1-160 Tuesday, Thursday 12.30-13.50

Labs ESB 4-09	H1	Monday, 14.00-16.50
	H2	Tuesday, 14.00-16.50
	H3	Wednesday, 14.00-16.50
	H4	Thursday, 14.00-16.50
	H5	Friday, 14.00-16.50

You must attend your assigned lab section. If you need to change your assigned lab section in a particular week, you must request permission from your lab TA; changes will only be approved if there is space.

Required Textbooks and Learning Resources:

Structural Geology of Rocks and Regions by Davis, Reynolds and Kluth. (Published by Wiley)

EAS 233 Laboratory Manual by Waldron. Available in the bookstore. Note: you are required to purchase your lab manual before the first lab.

Additional learning resources will be made available through the course web site http://courses.eas.ualberta.ca/eas233

Previous test and exam material, illustrating the format of test questions, will be made available at the course web site.

Rules for lectures and labs

Cell phones are to be turned off during lectures, labs and seminars. Headphones and personal audio systems may not be used in labs. (This is to ensure that you can hear and benefit from instructions from the TAs at all times.) Recording is permitted only with the prior written consent of the instructor or if recording is part of an approved accommodation plan. Bring the following items to all labs and lectures:

- Your lab manual
- Pens, pencils, eraser, etc.
- A few coloured pencils (pencil crayons) for labelling only; do not use them for accurate constructions.
- Ruler, protractor, compass (for drawing circles)
- Scientific calculator with trignometric functions (sin, cos , tan) and their inverses. Do not use your phone as a calculator as you will not be allowed to use it in tests and exams.
- Metric graph paper, tracing paper (a few sheets of each).
- An old fashioned thumb tack with a flat head. (Embed this in your eraser for safe keeping.)

Be aware of the rules for academic integrity (below) as they apply to your work in labs.

Rules for exams

- Your student photo I.D. is required at exams to verify your identity.
- Bring all the same drawing materials listed for labs to the exams. You may use clean copies of the Wulff and Schmidt nets from the lab manual, but no other parts of the manual. (Extra copies of the nets may be downloaded from the web site.)

- Prior to entering the room where the exam will take place, make sure you have all the necessary tools and materials in your hands. Bags and coats are to be placed in the space provided, before you sit down. You will not be able to access them during the exam.
- Students will not be allowed to begin an examination after it has been in progress for 30 minutes. Students must remain in the exam room until at least 30 minutes has elapsed.
- Cell phones and electronic equipment other than calculators cannot be brought into examination rooms and hats should not be worn.

Be aware of the rules for academic integrity (below) as they apply to exams and tests.

Grade Evaluation:

Grade evaluation will be by a combination of relative standing in the class and absolute achievement. This means that grades will be assigned based on the overall quality of the work done so as to be consistent in standard with previous years' grading. No absolute grade distribution ('curve') will be imposed on the grades, but the overall level and range of grades is likely to be similar to other classes at this level at the University of Alberta. Grades are unofficial until approved by the Department and/or Faculty offering the course.

EXAMS	WEIGHTING	DATE
Midterm #1	10%	Feb 14, 12.30
Midterm #2	10%	Mar 20, 12.30
Labs	40%	Weekly
Final Exam	40%	April 24, 14.00*
Deferred examination / re-exmination		June 20, 2 pm

*WARNING: Students must verify this date on BearTracks when the Final Exam timetable is published.

Unexcused late labs will be marked at 50% up to the time when marked work is returned. Thereafter, missed labs will received a mark of zero. However, **to pass the course you must hand in all ten labs.**

Missed Exams and Assignments:

A student who cannot write a **term examination or complete a lab** due to incapacitating illness, severe domestic affliction or other compelling reasons can apply to the instructor for an extension of time or a deferral of marks to another component of the course. A student who cannot write the **final examination** due to any of these reasons can apply for a deferred final examination to the student's Faculty office within 48 hours of the missed examination with a Statutory Declaration (*in lieu* of a medical statement form) or other appropriate documentation (Calendar section 23.5.6). Deferral of work and examinations is a privilege and not a right; there is no guarantee that a deferral will be granted. Misrepresentation of Facts to gain a deferral is a serious breach of the *Code of Student Behaviour*.

Reexamination:

A student who writes the final examination and fails the course may apply for a reexamination, governed by University (Calendar section 23.5.5) and Faculty of Science Regulations (Calendar section 192.5.9). Misrepresentation of Facts to gain a reexamination is a serious breach of the *Code of Student Behaviour*.

Students With Disabilities:

Students who require accommodation in this course due to a disability are advised to discuss their needs with Specialized Support & Disability Services (2-800 Students' Union Building).

Policy about course outlines can be found in section 23.4(2) of the University Calendar.

Academic Support Centre:

Students who require additional help in developing strategies for time management, study skills or examination skills should contact the Academic Support Centre (2-300 Students' Union Building).

Academic integrity

All work you present for evaluation in any course must be **your own work**. It is an academic offense if you:

- present someone else's work as your own (plagiarism)
- gain an unfair advantage in a test or an exam (cheating)
- distort the truth for advantage (misrepresentation of facts)
- encourage or help anyone else to do any of these things.

In EAS 233 you will sometimes benefit from discussions with other students as well as TAs, especially in the labs. Although this discussion may help you decide **how** to solve problems in structural geology, **the actual answers you write down must be written in words and sentences composed by you alone, diagrams must be drawn by you, and any measurements or calculations must be carried out separately by you**. It is not acceptable to share a calculator in determining the answers to questions.

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the *Code of Student Behaviour* (online at www.governance. ualberta.ca) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

Offenses are reported to the Senior Associate Dean of Science who determines the disciplinary action to be taken. Anyone who engages in cheating, plagiarism or misrepresentation of facts these practices will receive *at minimum* a grade of zero for the exam or paper in question The Faculty of Science sanction for cheating on any examination includes **a disciplinary failing grade** (no exceptions) and may include a suspension or expulsion from the University of Alberta.

Disclaimer: Any typographical errors in this Course Outline are subject to change and will be announced in class. The date of the final examination is set by the Registrar and takes precedence over the final examination date reported in this syllabus.

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