MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
		WEEK 1		
10-22 9:00 – Intro & Review; Time Scale 1:15- Geo X-Scn & Topo Profile; Trig; Topo & Geo Maps; 1st Rule of V's; Brunton; S&D Read D&R 36; 662-669 (or D, 35 52-61) HW: Trig Probs	**10-23** 9:15 – *Time Scale Quiz*; *Trig Probs due;* Thick/Depth by Trig; Ortho Proj 1:15- Bruntons; Begin cross-section #1 Read D&R 684-690 (or D 61-68) HW: Thickness & Depth to Contact; Ortho Projection Prob; Cross-scn #1	**10-24** 9:15 – *Trig Quiz*; *Ortho Proj Prob due;* Outcrop Patt Dip Beds via Ortho projection 1:15- 2nd Rule of V's Read D&R 669-684 (not available in D) HW: Outcrop Pattern of Dip Beds; Cross-section #1	**10-25** 9:15 – *Outcrop of Dipping Beds Quiz*; *Exer due;* 3-Pt Probs; Block Diagrams 1:15- apparent dip exercise Read D&R 691-700 (or D 68-76); hand-outs HW: cross-section #1; 3 pt probs	**10-26** 9:15 – *Brunton Quiz;* campus map 1:15-Work on cross-section #1 Read D&R 691-704 (or D 68-81) HW: X-Scn #1
		WEEK 2		
10-29 9:15-2:00 – Rock Creek fieldtrip Reread D&R 204-226; 269-303; 315-371 (or D Ch. 9) HW: Rock Creek Lab; X-scn #1	**10-30** 9:15 – *Geologic Map Quiz; Cross section #1 due;* Intro to Stereonets; Poles to Planes on Stereonets; 1:15- Stereonet Apps; Apparent Dip; Rake Read Chapter on Faults HW: Cross section #2	**10-31** 9:15 – *Stereonet Quiz*; Faults; Thrust Faults; Joints; Map Patterns of Faults *1:15* - **MacBride Reservoir Fieldtrip** Read Chapter on Faults HW: X-section #2; MacBride Sketch; NM Fault Determinat'n Exer	**11-1** 9:15 – Folds; Stereonets for Fold Axis & Axial Plane Orientations (Rock Creek example) 1:15 - Folds & Fabric; Origin of Deformation Fabrics Read: Chapters on (i) folds and (ii) cleavage, foliation, lineation HW: X-Section #2	**11-2 7:00 AM-8:00 pm - Baraboo Fieldtrip** HW: Baraboo map and Cross-Section; X-Section #2
		WEEK 3		
11-5 9:1 – work on Baraboo map, cross-section and report; work on cross-section #2 1:15- **Baraboo project due;** Work on Cross-section #2 HW: X-Section #2; study for exam	**11-6** 9:15 – **MIDTERM EXAM** 1:15 – NO CLASS Read – chapter on Plate Tectonics HW: X-Section #2	**11-7** 9:15- Seismic Activity & PT; Continental Rifting and Extensional Tectonics; *How to Read a Paper* 1:15 – Isostasy and Exhumation Read: Molnar and England (1990) HW: Isostasy Exer; summary of M&E; X-Section #2	**11-8** 9:15 – Quiz; Discuss M&E; Accretion Tectonics; Subd Tectonics 1:15- *Isostasy exer due; summary of M&E due*; *Man Who Moved Mts* video; plate motion exercises Read: Hanson & Glazner (1995) HW: summary of H&G; X-Scn #2	**11-9** 9:15 – Quiz; cross-section #2 due;; H&G *summary due*; discuss Hansen & Glazner; *Panang Parbat* 1:15- Chemical Signals of Tectonics Read: Edmond (1992); Baldridge & Olson (1989) HW: summary of E and B&O
		WEEK 4		
11-12 9:15 –Quiz; *summaries of E and B&O due;* Discuss Edmond (1992) and Baldridge and Olson (1989) 1:15- Survey of North American Tectonics and Global Mountain Ranges Read – Molnar *Tibetan Plateau; Structure of Mt Ranges; Himalayas* HW: integrated summary of Molnar	**11-13** 9:15 – Quiz; integrated *summary of Molnar papers due;* discuss Molnar papers 1:15- No class – study for exam HW: study for final exam	**11-14 8:30 – FINAL EXAM**		

TECTONICS
Fall 2018

Professor: Rhawn Denniston **Office**: 202 Norton **Phone**: x4306 (W); 319-350-7074 (cell) **Office Hours**: 8:30-9:15; 11:15-11:30 daily

Text and Readings *Structural Geology of Rocks and Regions,* Davis (and Reynolds), 1st or 2nd editions and various articles

Grading Scheme

20% Exam 1 25% Exam 2 15% Exercises 10% Summary Papers[1] 15% Cross-sections 10% Quizzes[2] 5% Participation[3]

Academic Policies

Late Work - Assignments are to be completed as scheduled. If unable to meet a deadline due to a college-sanctioned excuse, see me IN ADVANCE of the deadline. For late work, scores will be reduced by 25% for each day after the deadline.

Cheating – Don't even think about it. You must complete all assignments (homeworks, papers, cross-sections, problem sets, exams, quizzes, etc.) entirely on your own unless I give you permission to work together. See *The Compass* for specifics or see me with any questions.

Cell Phones, Computers, Etc. – Cell phones are NOT permitted in the classroom for any reason between the start and end of class, including breaks, without my permission. Computers may be used for note taking only with my permission and must only be used for that purpose.

Class Requirements Textbooks, calculator, protractor, and Brunton (assigned) are required in class each day.

Academic Honesty Cornell College expects all members of the Cornell community to act with academic integrity. An important aspect of academic integrity is respecting the work of others. A student is expected to explicitly acknowledge ideas, claims, observations, or data of others, unless generally known. When a piece of work is submitted for credit, a student is asserting that the submission is her or his work unless there is a citation of a specific source. If there is no appropriate acknowledgement of sources, whether intended or not, this may constitute a violation of the College's requirement for honesty in academic work and may be treated as a case of academic dishonesty. The procedures regarding how the College deals with cases of academic dishonesty appear in The Compass, our student handbook, under the heading "Academic Policies – Honesty in Academic Work."

Students with Disabilities Students who need accommodations for learning disabilities must provide documentation from a professional qualified to diagnose learning disabilities. For more information see cornellcollege.edu/disabilities/documentation/index.shtml. Students requesting services may schedule a meeting with the disabilities services coordinator as early as possible to discuss their needs and develop an individualized accommodation plan. Ideally, this meeting would take place well before the start of classes. At the beginning of each course, the student must notify the instructor within the first three days of the term of any accommodations needed for the duration of the course.

Course Objectives The course seeks to centers of structural geology and global tectonics. Material is presented through lecture, class discussion, reading of the primary literature, fieldtrips, and numerous problem sets and map-related exercises.

The course responds to the following four liberal arts objectives cited in Cornell's *Educational Priorities and Outcomes:*

- **Knowledge**: integrate and apply knowledge from a focused area of study as well as a broad general education which includes disciplinary and interdisciplinary perspectives in the arts, humanities, sciences and social sciences.
- **Inquiry:** Students will respond to the complexities of contemporary and enduring problems using information literacy tools, research skills, creative thinking, and analysis.
- **Reasoning**: Evaluate evidence, interpret data; and use logical, mathematical and statistical problem-solving tools.
- **Communication:** Students will speak and write clearly, listen and read actively, and engage with others in productive dialogue.

[1] Summary papers are short (<1 pg per article) single-spaced summaries of the readings and are graded based largely on how well they define the important issues of the paper. Questions, thoughts, and points for discussion should be included in these papers and then raised during our class discussion. A portion of the grade will be based on the quality of the writing.

[2] Quizzes will start promptly at 9:15 am and will end at 9:20 am. If you are late to class, you will not be given extra time to finish the quiz. If you miss class because of a school-sanctioned excuse, that day's quiz will not be factored into your final grade.

[3] Participation involves contributing in a *responsible* and *thoughtful* way to lectures, discussions, fieldtrips, and, of course, requires regular and on-time attendance.