

Welcome to GEO 217 – Invertebrate Paleontology. Although I will not be present, class begins on Monday 31 August. This file contains instructions that will allow you to get going with the course, as well as the course syllabus. Everything you need to do on the first day involves reading materials obtained from the course web page – which you already have accessed if you are reading this. I will be back on campus for class at 9 a.m. Tuesday morning. There are three tasks to accomplish on Monday:

1) Read through the course information and syllabus provided here. Note there is an all-day field trip on the first Wednesday.

2) Click on the “[Readings and Links](#)” link on the course home page and retrieve all of the files listed under “Earliest Life and Burgess Shale”. Note the links containing “(pictures)” will provide you with papers that you are to browse to get an idea of what some of the fossils discussed actually look like; reading these papers is optional. Reading the other papers is not optional, and they should be read **in the order in which the links are listed** (Stromatolites; Ediacaran 1, 2; Burgess Shale 1, 2, Ordovician Radiation). Please read the papers on Monday so you will be ready to discuss them on Tuesday morning at 9 a.m.

3) Click on the “[Extinction Seminar](#)” link on the course home page and read the instructions.

SEE YOU TUESDAY!

Ben Greenstein

GEOLOGY 217 INVERTEBRATE PALEONTOLOGY  
Course information and syllabus

**Instructor:** Ben Greenstein

**Office:** Norton 108, Office hours TBA

**Meeting Times:** We will meet mornings 9-11, and afternoons 1:15-3, although class meetings may not last the entire time.

**Field Trip:** There is one required field trip to a quarry near Troy Mills on Wednesday, 2 September. The van departs from the Commons at 8:45 AM. we will return between 3-4 p.m.

**Required reading materials:**

Prothero, D. R., 2004, Bringing fossils to life: An introduction to paleobiology 2nd Edition. WCB/McGraw-Hill, Boston.

Raup, D. M., 1991, Extinction: Bad genes or bad luck? W. W. Norton & Co., N. Y.

Please read Raup's book by the end of the first week of the block.

**General reference books in lab room**

Boardman, R.S., Cheetham, A. H., and Rowell, A. J. (eds.) Fossil Invertebrates, Blackwell Scientific

Beerbower, J. R., 1968, Search for the past. Prentice-Hall, N. Y.

Briggs, D. E. G., and Crowther, P. R. (eds.), 1990, Palaeobiology: A Synthesis. Blackwell Scientific

Briggs, D. E. G., and Crowther, P. R. (eds.), 2001, Palaeobiology II: A Synthesis. Blackwell Scientific

Moore, R. C., Lallicker, C. G., and Fisher, A. G., 1952, Invertebrate Fossils. McGraw-Hill. Treatise on Invertebrate Paleontology, Parts A-X, R. C. Moore, editor, University of Kansas Press (in cabinet in back of room).

**Evaluation:** I will use a variety of methods to assess your performance in this course. Graded work will include lecture and lab exams, written assignments an oral presentation and a curated fossil collection. **I will not grade any work turned in late!** Enthusiasm and thoughtful participation in discussions, lab and on the field trip count, even if only subjectively. Formula for grading will be as follows:

Foram project 15%

Exam I 15%

Lab exams (2) 20%

Exam II 15%

Fossil collection/paper 15%

Discussion/paper 5%

Seminar presentation/paper 15%

Cornell College is committed to providing equal educational opportunities to all students. If you have a documented learning disability and will need any accommodation in this course, you must request the accommodation(s) from me as early as possible and no later than the third day of the term. Visit [http://cornellcollege.edu/academic\\_affairs/disabilities](http://cornellcollege.edu/academic_affairs/disabilities) for more information about the policies and procedures for accommodation of learning disabilities.

## COURSE SCHEDULE

Unless listed otherwise, readings in parentheses refer to course text

### DAY 1

NO CLASS – Reading assignments for Tuesday’s lecture and Extinction seminar handed out

### DAY 2

AM: Origin of life, Cambrian explosion, Burgess Shale (Handouts)

PM: Taphonomy (Chap. 1)

DAY 3 ALL DAY Field Trip: Troy Mills Quarry

DAY 4 AM/PM: Taxonomy (Chap. 4)

DAY 5 AM: Fossil Populations I (Chaps. 2, 3, 5); papers handed out for Tuesday discussion

P.M. Trace Fossils (Chap. 18)

### DAY 6

AM: Extinction seminar, oral presentations (**seminar paper due, 9 a.m.**)

PM: Fossil populations II (Chaps. 2, 3, 5)

### DAY 7

AM: Fossil populations III (Chap. 8, pp. 141-146)

PM: Discussion: Phanerozoic Diversity

### DAY 8

AM: Protoctista - foram project handed out (Chap. 11, handout); (**paper due, 9 a.m.**)

PM: Porifera (Chap. 12)

### DAY 9

AM Cnidaria (Chap. 12)

PM: Catch-up as needed

### DAY 10

**AM: Lecture exam**

**PM: Lab exam**

### DAY 11

AM/PM: Lophophorates: Brachiopods and Bryozoans (Chap. 13)

### DAY 12

AM/PM: Introduction to molluscs: Bivalves (Chap. 15)

### DAY 13

AM/PM: Gastropods and Cephalopods (Chap. 15) **Foram projects due, 3 p.m.**

### DAY 14

AM/PM: Arthropods (Chap. 14)

### DAY 15

AM/PM: Echinoderms (Chap. 16)

### DAY 16

**Fossil collection/paper due, 9 a.m.** Catch-up as needed

### DAY 17

**Lab exam, 9 a.m.**

### DAY 18

**Final Exam, 9 a.m.**