

SUNY Cortland
Department of Geology
GLY 363 - Invertebrate Paleontology
Fall, 2018

Credit Hours: 3	Instructor: Dr. Christopher A. McRoberts
Lecture: Mon, Wed 9:10-10:00	Office: 1010 Bowers Hall
Location: Bowers Rm. 1011	Phone: 753-2925
Laboratory: Thu: 1:15-4:05, Bowers Rm. 336	E-mail: mcroberts@cortland.edu
Web: http://paleo.cortland.edu/class/paleo/	Office Hours: Tue 11-12, 2-4; Wed 2-4, and by appointment

Required Texts:

- Benton, M.J. and Harper, D.A.T. 2009. *Introduction to Paleobiology and the Fossil Record*. Wiley-Blackwell.
- Additional readings will be made available at the library reserve desk and in the back of Room 336.

Course Description:

(S) Important invertebrates in fossil record. Laboratory study of morphology, identification and preparation procedures. Two lectures, one three-hour laboratory, required field trip. Prerequisite: GLY 172 or GLY 262 (3 cr. hr.).

Course Objectives and Assessment:

Upon completing this course students will be able to use the fossil record to make inferences about paleoenvironments and as a means of dating the relative age of fossil-bearing rocks. Hence it will be required that students demonstrate a general understanding of the various groups of fossil organisms and their stratigraphic occurrence, as well as the principles and theories of paleontological techniques and scientific reasoning. Specifically, students should:

1. Demonstrate ability to identify fossils of major taxonomic groups.
2. Demonstrate knowledge of morphology and paleobiology (including function and paleoecology) of major fossil groups.
3. Demonstrate knowledge of the age and stratigraphic significance of major fossil groups.
4. Be able to collect and interpret paleontological data from the field
5. Be able to present scientific findings in written format

Attendance Policy:

You are expected to attend all lectures and laboratories; however, attendance *per se* will not be part of your grade assessment. Each student, however, will be responsible for material missed and any assignments due on the day of an absence. Unless otherwise excused (see below) make-up quizzes and exams will not be allowed. Excused absences include your illness, a death or other family emergency **and must be documented**.

Grading:

To pass this course you must successfully complete both the lecture and laboratory portions of the course and well as the field-based research project. Your grade will be based on the following formula:

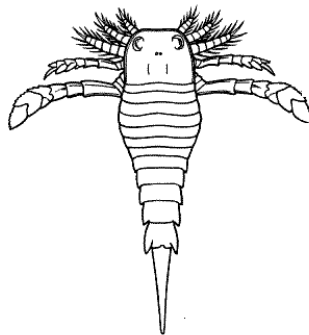
Exam 1	15%
Exam 2	15%
Final Exam (cumulative)	25%
Laboratory (labs and quizzes)	25%
Field Project/Paper	20%
Total	<hr/> 100%

Academic Integrity Statement:

You are expected to abide by the SUNY Cortland standards of academic integrity (Chapter 340 of the College Handbook). Students will not cheat or plagiarize in this course. Plagiarism, a serious academic offense, is defined as expropriating the ideas of others and using them as one's own without due credit. Students who cheat in examinations or plagiarize in this course will be disciplined in accordance with university rules and regulations.

Students with Disabilities:

If you are a student with a disability and wish to request accommodations, please contact the Office of Student Disability Services located in B-1 Van Hoesen Hall or call (607) 753-2066 for an appointment. Information regarding your disability will be treated in a confidential manner. Because many accommodations require early planning, requests for accommodations should be made as early as possible.



Eurypterus remipes—The New York State Fossil

Lecture and Lab Schedule (subject to much change)

Date	Tentative Topic	Readings from text
27-Aug	Intro: Fossils and fossil preservation	Chapters 1-3
29-Aug	Fossil preservation and taphonomy	
30-Aug	LAB 1: Fossilization	
5-Sep	Systematics and taxonomy & Protists	Chapter 5, 9
6-Sep	LAB 2: Protists	
10-Sep	Growth and Form	Chapter 6
12-Sep	Porifera and Cnidaria	Chapter 11
13-Sep	LAB 3: Porifera and Cnidaria	
17-Sep	Bryozoa	Chapter 12
19-Sep	Evolution	Chapter 7
20-Sep	LAB 4: Bryozoa	
24-Sep	EXAM 1	
26-Sep	More Evolution	Chapter 7
27-Sep	LAB 5: Species and Populations	
29-Sep	FIELD TRIP	
1-Oct	Brachiopoda	Chapter 12
3-Oct	More Brachiopoda	
4-Oct	LAB 6: Brachiopoda	
9-Oct	Molluscs	Chapter 15
10-Oct	More Molluscs	
11-Oct	LAB 7: Mollusca I	
17-Oct	More Molluscs	
18-Oct	LAB 8: Mollusca II	
22-Oct	Paleoecology	Chapter 4
24-Oct	More Paleoecology	
25-Oct	LAB 9: Fossil Preparation	
29-Oct	EXAM 2	
31-Oct	Echinodermata	Chapter 15
1-Nov	LAB 10: Echinoderms	
5-Nov	Arthropoda	
7-Nov	More Arthropoda	Chapter 14
8-Nov	LAB 11: Arthropoda	
12-Nov	Miscellaneous Groups	
14-Nov	Biodiversity	Chapter 7
15-Nov	LAB 12: Miscellaneous Groups	
19-Nov	Extinctions	
26-Nov	More Extinctions	
28-Nov	Biostratigraphy	
29-Nov	LAB 13: Paleoecology	
3-Dec	Paleogeography	
5-Dec	Overview/Big Picture	
6-Dec	LAB 14: Visit to PRI	
TBA	Final Exam	