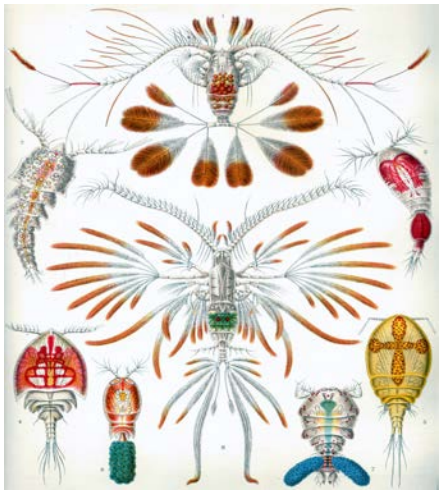
Fall 2019

SYLLABUS



BIO 318 - 001 **Invertebrate Zoology** 4.0 credit hours

TIME: 12:00 – 1:15 PM TR
PLACE: Auditorium (1105) and 1209 MG (Lab)
INSTRUCTOR: Joseph Pawlik
OFFICE: 2333 MG
OFFICE HOURS: By appointment.
TEXT: **Living Invertebrates**, 1987, by Pearse/Buchsbaum, Blackwell
Out of print – cheap copies online at Abebooks, Amazon, eBay, or free copies available for use in lab

GRADING: 40% on 4 of 5 1-hour exams (1 throw-out), 30% on final; 30% on lab. Grades are based on the mean and standard deviation of total points for both lecture and lab. Exams must be taken when scheduled; a missed exam will be considered a throw-out -- there will be ABSOLUTELY NO EXCEPTIONS to this policy.

THE DEPT. OF BIOLOGICAL SCIENCES STRONGLY SUPPORTS THE ACADEMIC HONOR CODE AS STATED IN "THE STUDENT HANDBOOK AND CODE OF STUDENT LIFE" AND WILL NOT TOLERATE ACADEMIC DISHONESTY.

NOTE: You MUST also be enrolled in LABORATORY (BIO 318-200).

Please note: Cell phones are banned from lectures! Laptop users must sit in last row.

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Aug	22	(R)	Course introduction. Origins of life and invertebrates. Chpts. 1, 30.
Aug	27	(T)	Origins, cont.
	29	(R)	Jargon, Protozoa. Chpt. 2.
Sep	03	(T)	Protozoa
	05	(R)	Porifera. Chpt. 3
Sep	10	(T)	Porifera, Cnidaria. Chpts 5, 6.
	12	(R)	**EXAM 1,** Cnidaria.
Sep	17	(T)	Cnidaria, Ctenophora. Chpt. 7.
	19	(R)	Platyhelmenthes. Chpts. 8-10.
Sep	24	(T)	Platyhelmenthes, Gnathostomulida Mesozoa, Nemertea. Chpt. 4, 11.
	26	(R)	Nematoda. Chpt. 12.
Oct	01	(T)	Pseudocoelomates, Meiofauna, Tardigrada. Chpts. 13, p. 316.
	03	(R)	Mollusca. Chpts. 14, 15.
Oct	08	(T)	**EXAM 2**
	10	(R)	*Holiday*
Oct	15	(T)	Mollusca, Annelida Chpts. 16, 17.
	17	(R)	Annelida.
Oct	22	(T)	Annelida, Other worm phyla. Chpt. 18
	24	(R)	**EXAM 3,** Arthropods. Chpt. 20.
Oct	29	(T)	Arthropods, Crustacea. Chpt. 21.
	31	(R)	Crustacea.
Nov	05	(T)	Chelicerata, Myriapoda. Chpts. 22, 23.
	07	(R)	Uniramia. Chpt. 24.
Nov	12	(T)	Uniramia, Onychophora. Chpt. 19.
	14	(R)	**EXAM 4,** Lophophorates. Chpt. 26.
Nov	19	(T)	Chaetognatha, Echinodermata Chpts. 25, 27
	21	(R)	Echinodermata
Nov	26	(T)	Hemichordata, Chordata. Chpts. 28, 29, 30
	28	(R)	*Holiday*
Dec	03	(T)	**EXAM 5**
Dec	12	(R)	**FINAL EXAM** 11:30 – 2:30PM

Fall 2019 **SYLLABUS**

BIO 318-200: **LABORATORY: Invertebrate Zoology**

TIME: 2:00 – 4:50 PM, T
PLACE: 1209 MG
INSTRUCTOR: Joseph Pawlik
(see Syllabus for LECTURE)
NOTE: You MUST be enrolled in LECTURE (BIO 318).
TEXT: None required. You must buy a RING BINDER (see below).
GRADING: Lab grade is 30% of course grade. Breakdown of lab grade: 30% on notebooks, 30% on midterm and 40% on final. Exams must be taken when scheduled -- there will be ABSOLUTELY NO EXCEPTIONS to this policy.
NOTEBOOKS: You must keep a RING BINDER containing notes of your observations made during class. The ring binders are available at the bookstore: 1"- spine, D-ring, any color. YOU MUST USE THIS KIND OF RING BINDER. You will also need "3-hole" filler paper for inside the binder. For each station of a lab, you will write the date and station number at the top of a new sheet and take notes FOR THAT STATION ONLY. You will sort the sheets for each lab. When scheduled, you will leave your notebooks in 1209 CMS and they will be graded.
ATTENDANCE: Lab stations will be set-up and available M-W, allowing students to do labs in their own time and at their own pace. However, exams **must be taken** during class time.

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Aug	27	(T)	Protozoa
Sep	03	(T)	Sponges *(note: M is Labor Day!)*
	10	(T)	Cnidaria; *Notebooks Due*
	17	(T)	Platyhelminthes
	24	(T)	Pseudocoelomates
Oct	01	(T)	Mollusca
	08	(T)	*NO LAB - Holiday*
	15	(T)	Annelida
	22	(T)	**MIDTERM EXAM,** *Notebooks Due*
	29	(T)	Arthropods I
Nov	05	(T)	Arthropods II
	12	(T)	Lophophorates
	19	(T)	Echinodermata
	26	(T)	Hemichordata, Chordata ***Note: short week!***
Dec	03	(T)	**FINAL EXAM**, *Notebooks Due*

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GOALS FOR **BIO 318** (Lecture and Lab): By the end of this class, students will be able to:
(1) Explain the process by which life and invertebrate animals originated on earth.
(2) Identify the phyla of invertebrate animals, and recognize their distinguishing features.
(3) Compare the body plans of major taxa, and explain how morphology relates to trophic mode.
(4) Assess the methods by which zoologists have historically categorized invertebrates.
(5) Explain convergent evolution of unrelated invertebrate taxa.
(6) Predict differences in organ systems for respiration and excretion based on size and habitat.
(7) Understand differences in life histories of major invertebrate taxa.