Welcome to

Invertebrate Zoology

Bisc 306

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Office Hours: XXXX
Course Overview:

- Generally your week will be composed of three hours of lectures and three hours of laboratory work per week.
- You’ll be given three writing assignments and will write 3-4 exams.

Lectures:

- Introduction to Invertebrates and Phylogentics
- Kingdom Protozoa
- Kingdom Animalia
- Phylum Porifera & Hecate Straight oil exploration
- Phylum Cnidaria
- Phylum Ctenophora
- Phylum Platyhelminthes
- Phylum Rotifera
- Phylum ……

Laboratories and Field Trips

- Weekly in Room B 8xxx
- Yes, there is a lab this week, please be on time
- Please be advised: The tides wait for no one.
  - Survey of local areas
  - Boat trips
  - Bamfield Marine Station
    - Leave Thursday June 3
    - Return Sunday June 6
Textbooks

Lectures (highly recommended)

- Although all texts listed below are good, I would recommend Pechenik as it is the most concise and easiest to read and second hand books should abound. For thoroughness go to Rupert, Fox and Barnes. For easiest resell go to Brusca and Brusca.

Laboratories

- There are no recommended lab books. However, you will be expected to come prepared to laboratory with reference material of sorts.

A word or two about Biological Dictionaries

- you should own one
- invertebrate dictionaries on the web
- a latin/greek help dictionary on the web
Grading

Important things for you to know to do well in this course

• Greek/Latin dictionary
• Come to all labs and lectures
• Keep an organized notebook
• Put time into your projects
• Like what you are doing
• Keep an open mind and be inquisitive!

Grading Schemes

• 50% papers
• 20% final lab exam
• 30% final lecture exam (open book)

OR//

• 50% papers (May 28, June 28, July 14)
• 20% final lab exam (July 22, 23)
• 10% midterm lecture exam (open book; May 31)
• 20% final lecture exam (open book; July 30 – 3 hours)

The Written section of the Course:
Why write?

- Writing is universally loved, needed and feared – confronting that blank page.
- Writing is learned only through practice.

Three Basic Genres of Biological writing:

- (I) written for the general audience
- (II) the peer-reviewed research paper (get data and write about data’s significance)
- (III) in depth reviews of a particular phenomenon (i.e. metamorphosis, Calcium channels, ecology, evolution, haplo-diploidy) or organism written for the scientific community.

Important things to note about marking:

- You will be asked to hand in all drafts
- You will be asked to hand in certain stages throughout your writing process. These will not be graded. However, if the stage is not handed in your final paper mark will decrease by 5%. i.e. if you receive 80% on the paper but fail to hand in a stage you will obtain 75% instead.
- You will be asked to peer review, once again this is an unmarked but mandatory process (once again, - 5% for non-compliance).

The Written Projects
I: Project 1 – Written for the General Audience (Due May 28 – 5 pages plus references): Please write about invertebrates for a general lay audience. You may choose your own topic or use one of the following:

- conservation of invertebrates (discuss about a target organism or a specific ecosystem)
- famous invertebrates
- invertebrates in the media
- BC’s back yard invertebrates
- socioeconomic impact of invertebrates
  - inverts in our every day life
  - fisheries
  - harvesting
  - cooking
  - international trade
  - biological invasions
- the wow factor in invertebrate zoology (find some behaviour, trait or response that you find interesting and explain to the rest of us why you find it so).
  - Malaria
  - Sex-changing
  - Poisons
  - Colour
  - Strength, power

(II) Project 2 – The research paper done in Scientific style 10-12 pages plus references; Due June 28). This will be work done on data you and your collaborators collect in Bamfield. The research paper will be written in groups of 3.
- The question is set forth
- The design of the experiment/observation is organized
- The data is collected
- The data is analyzed
- The paper is written
- The paper is reviewed
- The paper is submitted

(III) Project 3 – An in depth look at a particular phenomenon or organism (Due July 14). A review paper done in biological sciences style (8-10 pages plus references).

- Metamorphosis
- phylogenetics
- adaptation
- A particular phylum
- Developmental evolution
- etc.