

Additional Information

MARE 357: Advances in Molluscan Biology MARE 957: Advanced Topics in Molluscan Biology

Summer Course - 2010

*School of Biological Sciences
University of Wollongong*

Background

The School of Biological Sciences at the University of Wollongong, in collaboration with the Australian Museum, will again host a summer course in Molluscan Biology from the 11th Jan. until the 22nd Jan. 2010.

This subject is open to students who satisfy the pre-requisite for entry of an introductory invertebrate subject at 2nd year level. At the University of Wollongong, this subject is BIOL241.

MARE357 is an 8 credit-point, 3rd Year level subject in the Science Faculty at the University of Wollongong. As such, it represents 1/6 of a year's work at 3rd Year level. Students at the University of Wollongong can simply enrol in this subject as part of their degree. Students from other Universities can enrol in this subject as external students (considerable cost) or as credit-transfer students (within HECS). The Postgraduate subject MARE957 is for Masters by Research or Coursework students. It constitutes 12 credit points (1/4 of a years work) and will include additional assessment items.

Applying for admission

These are restricted entry subjects with a quota of 20 students in total. As there may be more applicants than places, there will be a selection process as follows:

1. Students complete the application form.
2. Students submit the form and their University transcript to the following address by Friday 23 Oct. 2009 (end of Week 12).

Associate Professor Andy Davis
School of Biological Sciences
University of Wollongong
Wollongong, NSW, 2522
Ph: (02) 4221 3432
Fax: (02) 4221 4135
adavis@uow.edu.au

3. Students are then ranked and selected on the basis of academic record and other material requested in the application form.
4. Students informed of acceptance into subject (or reserve list) by Friday 30 Oct. (end of Week 13)

TIMETABLE

Following successful enrolment	Students will be provided with reading materials and assigned tutorial topics. There may be a charge associated with these reading materials
Jan. 11-14 Wollongong	Lectures, field and laboratory practical exercises, students will also initiate individual projects.
Jan. 15-17 South Coast	Extended weekend field camp to the NSW South Coast This will include intensive collections in a variety of field settings, as well as field and laboratory examination of material. Field collections may include snorkelling.
Jan. 18-21 Wollongong	Lectures, field and laboratory practical exercises continue.
Jan. 22	Final examination on Friday afternoon 3 pm.
Jan. 25	Project reports due in at Wollongong by 5 pm or postmarked by 5 pm on this day.

ACCOMMODATION

This is an intensive residential course and students not from the University of Wollongong are advised to stay near Campus. Accommodation near campus with all meals can be provided by a University Hall of Residence - Campus East (http://www.uow.edu.au/about/accommodation/campus_east/). Please inform Andy Davis should you wish to book accommodation here for the duration of the subject.

1. SUBJECT INFORMATION – MARE357

Subject Number:	MARE357
Subject Name:	Advances in Molluscan Biology
Session(s) on offer OR Intake Session:	Summer
Method of Delivery:	Lectures/practicals
Location:	Wollongong Campus*
Contact Hours per wk (Indicate L/T/Sem split; lab; fieldwork etc):	10hrs Lectures/Tutorials per week for 2 weeks 20hrs practicals & field excursions per week for 2 weeks
Credit Points:	8 credit points
Pre-Requisite(s):	BIOL241 (or equivalent)
Co-Requisite(s):	nil
Assumed Knowledge:	Basic understanding of invertebrate biology
Equivalent Subject(s):	nil
Textbook or Learning Package:	Anderson (2001) Invertebrate Zoology
Subject Co-ordinator:	Assoc. Prof. Andy Davis
Departmental/Program Shares (% by Department/Program area):	100% Biological Sciences
Course Structures for which subject accrues credit points:	Bachelor of Science Bachelor of Marine Science

* This subject may run 'offshore' on occasions

Content:

This subject will provide an overview of molluscan biology, diversity and phylogeny. It will also examine the role of molluscs in fisheries, aquaculture, as pests and as carriers of disease. Consideration will be given to these aspects of molluscan biology worldwide, but there will also be a focus on the largely endemic Australian fauna. Each of the major groups of molluscs will be examined, including polyplacophorans (chitons), bivalves (e.g. clams and oysters), gastropods (e.g. slugs and snails) and finally the cephalopods (including octopuses & squid). For each group, their conservation, ecology, biology and evolutionary relationships will be addressed, with important current issues and research directions highlighted. The course will provide training in field techniques, identification, lab studies including dissection and accessing resources. It will include the observation and collection of molluscs in a variety of habitats, including the rocky shore, estuarine and rainforest environments. Literature examining contemporary research in molluscs will also be reviewed.

Outcomes:

On successful completion of this subject, students will :

1. appreciate the diversity of Mollusca in Australia and worldwide
2. understand the morphological and biological differences between the major groups of Mollusca and the characters important for identification
3. understand the basis of the phylogenetic relationships (and hence classification) of Mollusca
4. appreciate the role of molluscs in human culture, including fisheries, aquaculture, as pests and as carriers of disease
5. appreciate the role of molluscs in ecological, biological and evolutionary research
6. understand selected research methods relating to the biology and ecology of molluscs
7. analyse and obtain morphological and other data in an appropriate manner and present these effectively in both written, verbal and graphic formats
8. show concern for accuracy, precision, honesty, for the organisms under study, and for the safety and welfare of others in the laboratory or field (OH & S awareness)
9. use computers for data analysis and graphical presentation
10. critically evaluate information sources and demonstrated ability to synthesise literature

1. SUBJECT INFORMATION – MARE957

Subject Number:	MARE957
Subject Name:	Advanced topics in Molluscan Biology
Session(s) on offer OR Intake Session:	Summer
Method of Delivery:	Lectures/practicals
Location:	Wollongong Campus*
Contact Hours per wk (Indicate L/T/Sem split; lab; fieldwork etc):	10hrs Lectures/Tutorials per week for 2 weeks 20hrs practicals & field excursions per week for 2 weeks
Credit Points:	12 credit points
Pre-Requisite(s):	BIOL241 (or equivalent)
Co-Requisite(s):	nil
Assumed Knowledge:	Basic understanding of invertebrate biology
Equivalent Subject(s):	nil
Textbook or Learning Package:	Anderson (2001) Invertebrate Zoology
Subject Co-ordinator:	Assoc. Prof. Andy Davis
Departmental/Program Shares (% by Department/Program area):	100% Biological Sciences
Course Structures for which subject accrues credit points:	Master of Science (Biological Sciences) Research Master of Science (Biological Sciences)

* This subject may run 'offshore' on occasions

Content:

This subject will provide an overview of molluscan biology, diversity and phylogeny. It will also examine the role of molluscs in fisheries, aquaculture, as pests and as carriers of disease. Consideration will be given to these aspects of molluscan biology worldwide, but there will also be a focus on the largely endemic Australian fauna. Each of the major groups of molluscs will be examined, including polyplacophorans (chitons), bivalves (e.g. clams and oysters), gastropods (e.g. slugs and snails) and finally the cephalopods (including octopuses & squid). For each group, their conservation, ecology, biology and evolutionary relationships will be addressed, with important current issues and research directions highlighted. The course will provide training in field techniques, identification, lab studies including dissection and accessing resources. It will include the observation and collection of molluscs in a variety of habitats, including the rocky shore, estuarine and rainforest environments. Literature examining contemporary research in molluscs will also be reviewed (tailored to the specialisations of MSc students enrolled in the subject).

Outcomes:

On successful completion of this subject, students will :

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9. use computers for data analysis and graphical presentation
10. critically evaluate information sources and demonstrated ability to synthesise literature