

Arthropod Environmental Management

Monday – Friday: 5.00 – 8.00pm, Room 1024

Monday 8th July 2013 – Friday 26th July 2013

Instructor: Dr Richard Thacker BSc, MSc, Ph.D
Head Biological Sciences and Head of Science Admissions,
University of the West of Scotland, UK
Visiting Professor, Valdosta State University

General Course Description: This course provides an introduction to theoretical and practical aspects of arthropod pest management

Syllabus: The course will follow the textbook *An Introduction to Arthropod Pest Control* (Thacker, 2002). This book is organised into the following 13 chapters:

1. A brief history of arthropod pest control
2. Botanical insecticides
3. Modern synthetic insecticides
4. Formulation, application and the direct and indirect effects of insecticides
5. Biological control agents
6. Microbial pest control
7. Pheromones and pest control
8. Insect growth regulators
9. Genetic manipulation of pest species
10. Host-plant resistance
11. Cultural techniques and organic farming
12. Integrated pest management
13. Biotechnology and pest control

What you have to do – Assessment schedule

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| 1. Short answer test 1, Friday 12 th July (7.00 – 8.00pm) | 10% |
| 2. Short answer test 2, Thursday 18 th July (7.00 – 8.00pm) | 10% |
| 3. Short answer test 3, Wednesday 24 th (7.00 – 8.00pm) | 10% |
| 3. 5/10 minute presentation, Thursday 25 th (5.00 – 8.00pm) | 20% |
| 4. Submit course essay Thursday 25 th July | 20% |
| 5. Final exam, Friday 26 th July (6.00 – 8.00pm) | 30% |

Note on Presentation

The presentation should be on any pest of your choice. Confirm your choice with Dr Thacker by Monday 15th July. In your presentation you should describe the biological characteristics, problems, and current approaches to management of the pest that you choose. I would suggest that you use no more than 10 PowerPoint slides.

Note on Essay

The essay should be 1,000 – 1,200 words (3 – 4 sides) for undergraduate students with a minimum of 5 research papers cited. For postgraduate students the essay should be 1,500 – 1,800 words (5 – 6 sides) and a minimum of 10 research papers should be cited.

Note on Final Examination

The final exam will comprise a 1 hour short answer section and a 1 hour essay section. The short answer section is compulsory. The essay section will involve a choice of 1 from 6 essay titles. Weighting for the exam, with respect to the short answer/essay sections, will be 60%/40% for undergraduates and 40%/60% for postgraduate students.

Dr Richard Thacker (Summer 2013, Valdosta State University)