






ST ALOYSIUS COLLEGE (AUTONOMOUS)
MANGALURU 575 003

DEPARTMENT OF ZOOLOGY
OFFERS ONLINE CERTIFICATE COURSES ON

ENTOMOLOGY-THE STUDY OF INSECTS


Insects are the most abundant and diverse group of animals on earth. Insects impact almost every facet of the ecosystem and our lives. Many insects play valuable and essential roles in pollinating different plant species, in predating, controlling insect pests and in recycling nutrients. Other insects are harmful and are the vectors for major diseases. This course will provide students with a broad introduction to entomology including insect evolution, ecology, and anatomy. This will allow you to develop identification and classification. By the end of the course you will be well prepared to work in fields that require skills to study insects.

What you learn about Insects?	Assessment:	Course plan
Identification Insect anatomy and morphology Insect behaviour Importance of insects Study of Insects orders	Continuous assessment of the students will be done by Assignment, Quiz, test and Field work.	Online registration : LMS portal Commencement of classes : LMS portal Course fee : INR 500/- Duration of the course : 30 hrs Mode of communication : College LMS portal
	Eligibility: All UG and PG students	Certificate: All successful students will be awarded digital certificate by the college.

For Registration: LMS portal :- <https://sac-elearning.com/>

HEAD OF THE DEPARTMENT
DR HEMACHANDRA

COURSE COORDINATOR
MR KIRAN VATI K



ST Aloysius College Autonomous

Department of Zoology

Certificate course – 30hrs

Theory – 20 hrs

Practical/Assignments/ Field work- 10hrs

Entomology-the study of insects

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almost every facet of the ecosystem and our lives. Many insects play valuable and essential roles in pollinating different plant species, in predating, controlling insect pests and in recycling nutrients. Other insects are harmful and are the vectors for major diseases. This paper will provide students with a broad introduction to entomology including insect evolution, ecology, and anatomy. This will allow you to develop your identification, classification and preservation skills through examination of boxes of insects and through creating an insect collection. Students will also learn procedures for caring and rearing live insects. By the end of the unit you will be well prepared to work in fields that require entomological skills.

Syllabus

Chapter 1 - Characteristics of Insects 5hrs

Introduction to Entomology. Importance of Entomology, role of insects, Morphology: head and compound eyes, types of mouth parts, types of wings found on the different species.

Chapter 2 – Insect anatomy and behaviour 5hrs

Insect's digestive system, respiratory system, reproduction, metamorphosis. Food preferences in insects. Solitary, social and parasitic behaviour.

Chapter 3- Study of Insects orders 10hrs

The insect orders: Odonata (e.g. the Emperor Dragonfly), Hymenoptera (e.g. the Ants, wasps and bees), Neuroptera (e.g. the Lacewing), Coleoptera (the beetles e.g. the Ladybird), Orthoptera (e.g. Grasshoppers and Crickets), Hemiptera (e.g. the aphid), Diptera (e.g. the flies), Trichoptera (e.g. the Caddisfly), Diptera (e.g. the fruit fly), Blattodea (e.g. termites), Phasmatodea (e.g. stick insects)

Chapter 4 – Study of local Insects (Practical/Assignments/ Field work)

10hrs

- Identification of insects present in and around.
- Learn about pollination and identify insects most likely to pollinate certain kinds of plants.
- Study and document the complete life cycle of any insect.

REFERENCES

- 1. Arnett, R. (2000) American Insects: A Handbook of the Insects of America North of Mexico, 2nd edition, CRC Press.
- 2. Chapman, R. F. (1998) The Insects: Structure and Function, 4th edition [paperback] Cambridge University Press.
- 3. Daly, H. V., Doyen J. T. and Purcell A. H. (1998) Introduction to Insect Biology and Diversity, 2nd edition, Oxford University Press. .
- 4. Gullan, P. J. and Cranston P. (2010) The Insects: An Outline of Entomology, 4th edition, Wiley-Blackwell Press.
- 5. Pedigo, L. (2009) Entomology and Pest Management, 6th edition, Prentice-Hall, Upper Saddle River, New Jersey.
- 6. Resh, V. H. (2009) Encyclopedia of Insects, 2nd edition, Elsevier Science. 7. Triplehorn, C. A. and Johnson N. F. (2005) Borror and DeLong's Introduction to the study of Insects, 7th edition, Thomson Brooks/Cole, U.K.