

**Course Code : ENT 303**

**Course Title : Economic Entomology**

**Credit Hours : 3 (2+1) Full Marks: 75 Theory: 50 Practical: 25**

## **OBJECTIVES**

Upon the completion of this course, the students will be able to know common insect pests of crops, their identification and management practices using novel techniques.

## **I. SYLLABUS**

Systematic position, distribution, host identification, nature and extent of damage, life cycle, and seasonal histories, and control measures of important insect and non-insect pests (rodents birds, mites, wild animals and others) of cereals, pulses, oilseeds, vegetables, fruits, industrial crops, spices and condiments grown in Nepal. Storage grain pests and their control. Management of vector borne, polyphagous, soil hibernating and resistant insect pests.

## **II. COURSE OUTLINE**

### **A. Lecture**

<b>S.N.</b>	<b>Topic</b>	<b>No. of Lectures</b>
1.	Systematic position, distribution, host identification, nature and extent of damage, life cycle and seasonal histories of harmful insect pests associated with different crops.	4
2.	Insect pests of cereal crops and their management	1
3.	Insect pests of pulse crops and their management	1
4.	Insect pests of oilseed crops and their management	1
5.	Insect pests of vegetable crops and their management	5
6.	Insect pests of fruit crops and their management	5
7.	Insect pests of industrial crops, spices & condiments and their management	5
8.	Insect pests of storage grains and their management	2
9.	Management of disease vectors, polyphagous and soil hibernating insect pests	3
10.	Vertebrate pests and their management	1
11.	Pest resistance, pesticide residues and health problems	2
<b>Total</b>		<b>30</b>

## B. Practical

S.N.	Topic	No. of Practical
1.	Periodic visits to farms for crop pests monitoring	1
2.	Farm visit for collection and identification of predators	1
3.	Farm visit for collection and identification of parasitoids	1
4.	Farm visit for collection and identification of crop pollinators	1
5.	Collection and identification of major insect pests of rice and maize	1
6.	Collection and identification of major insect pests of wheat and millets	1
7.	Collection and identification of major insect pests of pulse crops	1
8.	Collection and identification of major insect pests of oilseed crops	1
9.	Collection and identification of major insect pests of fruit crops	1
10.	Collection and identification of major insect pests of industrial crops	1
11.	Collection and identification of major insect pests of stored grains	1
12.	Collection and identification of major virus vector insect pests	1
13.	Collection and identification of major vertebrate pests	1
14.	Collection and identification of medical and veterinary importance	1
15.	Identification and management of rodents	1
<b>Total</b>		<b>15</b>

## REFERENCES

Atwal, A.S. 1993. Agricultural Pests of India and South-East Asia. Kalyani Publishers, New Delhi.

Neupane, F.P. 2000. Bali Biruwa Ka Satruharu Ra Tinka Roktham (in Nepali). 4<sup>th</sup> edition. Sajha Prakasan.

Panwar, V.P.S. 1995. Agricultural Insect Pests of Crops and their Control. Kalyani Publishers, New Delhi.