

**Course objectives:**

Concepts of stored product pest management, storage principles and storage losses due to insect pests.

**Learning Outcomes:**

Concepts of stored product pest management, storage principles and storage losses due to insect pests.

**Course Content:**

Introduction; identification, biology and management of different stored product pests; principles and types of storages; factors affecting grain and other products in storages; stored product losses and their prevention.

**Teaching-Learning Strategies**

Teaching will be a combination of class lectures, class discussions, and group work. Short videos /films will be shown on occasion.

**Assignments**

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

**Assessments and Examination**

Sessional Work:	25 marks
Midterm Exam:	35 marks
Final term Exam:	40 marks

**Recommended Books:**

1. Ashfaq, M. Saleem, M. A. and Ahmad, F. 2009. ZariAjnaskiMahfooz Zakhira Kari (in Urdu). Pak Book Empire, Lahore.
2. Hill, D.S. 2002. Pests of Stored Food Stuffs and Their Control, Springer Publisher.
3. Rees, D. 2009. Insects of Stored Products. Manson Publishing Company.
4. Zaklandvoi, G. A. and Ratanova. V. F. 1987. Stored Grain Pests and their control. Oxonian Press Pvt. Ltd., London.

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**Learning Outcomes:**

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**Course Content:**

Visits to different godowns and demonstration of sampling methods and estimation; collection, identification and management of different stored product pests; culture of some stored products insect pests under different climatic conditions.

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