

# Southwest University

## Graduate Course Syllabus

### Course Unit: School of Food Science

|  |  |                     |   |                  |             |                |    |                               |    |                  |   |
|--|--|---------------------|---|------------------|-------------|----------------|----|-------------------------------|----|------------------|---|
| Course No.   | 1109020360                                     | Course name         | Topics on agricultural products storage |                  |             |                |    |                               |    |                  |   |
| Course category (√)  | Compulsory courses ( )<br>Elective courses (√) | Credit hour         | 2                                       | Total class hour | 30          | Lectures hours | 20 | Discussion hours              | 10 | Experiment hours | 0 |
| Lecturer   | Kaifang Zeng                                   | Job title<br>Degree | Associate professor<br>Doctor degree    |                  | Specialties |                |    | Agricultural products storage |    |                  |   |
| Range of application by majors: Processing and storage of agricultural products, Food science, Horticulture, Agriculture science   |  |                     |   |                  |             |                |    |                               |    |                  |   |
| Prerequisite courses: Storage, transportation and marketing of agricultural products; Storage and processing of horticultural products   |  |                     |   |                  |             |                |    |                               |    |                  |   |
| Teaching objectives and requirements:  |  |                     |   |                  |             |                |    |                               |    |                  |   |
| Teaching objectives:   |  |                     |   |                  |             |                |    |                               |    |                  |   |
| Through the class teaching, class discussions and paper writing, to let the students understand the current situation and trends of Postharvest Physiology and storage development of domestic and foreign agricultural products, and master the frontal theory and technology of the subject, and to cultivate students' ability to solve the practical problems of agricultural products storage |  |                     |   |                  |             |                |    |                               |    |                  |   |
| Requirements:  |  |                     |   |                  |             |                |    |                               |    |                  |   |
| 1. Master the research trends and the actual application of the new technology of agricultural products storage (heat treatment, genetic engineering, gas regulation, biological control, etc.) ;  |  |                     |   |                  |             |                |    |                               |    |                  |   |
| 2. Master the Postharvest Senescence Mechanism of aging and control measures;  |  |                     |   |                  |             |                |    |                               |    |                  |   |
| 3. Master the relevant information retrieval skills of agricultural products storage at home and abroad  |  |                     |   |                  |             |                |    |                               |    |                  |   |
| 4. Master the writing standard of scientific papers in agricultural products storage.  |  |                     |   |                  |             |                |    |                               |    |                  |   |

Teaching and testing methods (it's need to be conducive to cultivating the innovative thinking and ability of graduate students)

Classroom multimedia teaching and classroom discussion is the main method. On the basis of the teacher's explanation, fully mobilize the enthusiasm of the students, require students to consult a large number of documents, writing course papers, and develop lectures and discussion in the classroom. This can not only allow students to master a large number of background knowledge, but also inspire students' ability of creative thinking, and practice their standardization of writing.

The ordinary performance on the class was 40%, and the course paper accounted for 60%.

### **Course contents and course hours allocation**

Class teaching: 20 hours

Chapter I Research progress of heat treatment technology in the storage of agricultural products (3 class hours)

Chapter II Research progress of genetic engineering technology in agricultural products storage (3 class hours)

Chapter III Research progress of biological control in Postharvest Disease Control of agricultural products (5 class hours)

Chapter IV Research progress of new technology of air conditioning in storage of agricultural products (3 class hours)

Chapter V New technology of commercial processing of agricultural products (3 class hours)

Chapter VI Points needing attention in writing agricultural products storage related papers (3 class hours)

Discussion : 10 class hours

According to the above mentioned content or in combination with other related agricultural products storage and new technology, students select the relevant content, read a large number of relevant documents, make a presentation of the new technology of agricultural product storage by multimedia format, and write course papers. In addition to the content of the scientific and novelty of the presentation, students should also pay attention to the quality of slides and the standardization of the narrative. The course paper should meet the requirements of core journals publication, and considered as a result of the course.

**The Catalog for main reference book (periodicals):**

| No. | Author    | Books and Periodicals' name                                   | Press                                  |
|-----|-----------|---|--|
| 1   | Yunbo Luo | Storage and processing of horticultural products<br>(Storage) | China Agricultural University<br>Press |
| 2   |           | Postharvest biology and technology                            |  |
| 3   |           | European Journal of Plant Pathology                           |  |
| 4   |           | Journal of the Science of Food and Agriculture                |  |
| 5   |           | Journal of Botany   |  |
| 6   |           | Journal of Horticulture                                       |  |
| 7   |           | Journal of Agricultural Engineering                           |  |

Review Comments of School (Institute, Center):

Signature (Date)

Review Comments of Student Committee:

Signature (Date)

Review Comments of Graduate School

Signature (Date)