

Ministry of Higher Education and Scientific research



**Department of Animal Resources
College of Agriculture Engineering Sciences**

University of Salahaddin- Erbil

Subject: Poultry Product Technology (THEORETICAL)

Course Book – (Stage 4)

Lecturer: Asst. Prof. Dr. Nazim Rasul Abdulla

Academic Year: 2022/2023

Course Book

1. Course name	Poultry Product Technology
2. Lecturer in charge	
3. Department/ College	Animal Resources Department / College of Agriculture Engineering Sciences
4. Contact	Nazimrasul@yahoo.com Nazim.abdulla@su.edu.krd 07504537027
5. Time (in hours) per week	Theoretical : 2
6. Office hours	5 days a week
7. Course code	
8. Teacher's academic profile	I got BSc. at 1999-2003 and at 2003 I employed in college of agriculture/ Salahaddin University. Then I got the master at 2006 in Erbil- Iraq and the PhD at 2016 in Malaysia.
9. Keywords	
10. Course overview:	<p>Poultry Products Technology is a specialized area of the discipline of Food Science and Technology emphasizing and dealing with the processing of poultry and eggs and their uses separately and with other foodstuffs. Many food scientists and technologists, dieticians, and others training in the food service industry at some point in their career will handle poultry products and need to have not only some knowledge of how poultry and eggs are processed and prepared, but also how they can be used for optimum portions and servings.</p>
11. Course objective:	<p>Aim of the theoretical Section of Poultry product technology are to give students attention and understand applications in poultry products technology (meat and egg). The overall goal of the food industry is to produce healthy, nutritious, and tasty food to the consumer. Producing healthy, safe food with a reasonable shelf life is a challenge especially when there are so many steps involved in production.</p>
12. Student's obligation	The role of students in the class should attend to the class weekly and I will put some

points on it, every week I will do quiz for them and students participate in the class is very important.

13. Forms of teaching

I use the projector to display my objectives by power point, sometimes we need to write some information on the white board to clarify it. I will give all my objectives on the word paper to my students.

14. Assessment scheme

First Exam after six lectures

Mark Distribution:

Monthly Exam, 50%

Theoretical 15% (Quiz 5% and Exam 10%)

+ practical 35%

Final Exam, 50% (Theoretical)

15. Student learning outcome:

After finishing these courses the students will be able to search by specific key words related to Poultry product technology sector how to find scientific resources which explain the modern principles and developments in Poultry product technology, also they will learn about the newest technical additives and strategies used to improve Poultry product technology.

16. Course Reading List and References:

Books:

- Mountney, G.J. and Parkhurst, C.R., 2017. Poultry products technology. Routledge.
- Stadelman, W.J., Newkirk, D. and Newby, L., 2017. Egg science and technology. CRC Press.
- Guerrero-Legarreta, I., 2010. Handbook of poultry science and technology, Volume 2: secondary processing. John Wiley & Sons, Inc.
- Mead, G. ed., 2004. Poultry meat processing and quality. Woodhead Publishing.

17. The Topics:

Lecturer's name

Lecturer's name

18. Theoretical Topics (If there is any)

First week

ex: (3 hrs)

In this topic students will learn the

Introduction to Poultry product technology

- What is Product technology?

<ul style="list-style-type: none"> • Global consumption of meat • Global poultry forecast 2020-2030 • Poultry products consumption in Iraq country and Iraq neighbors • Benefits of Egg consumption • Global egg consumption 	<p>ex: (2 hrs)</p>
<p>Second week</p>	
<p>In this topic students will learn the</p> <ul style="list-style-type: none"> • Processing Poultry • The technological changes in poultry meat processing • Quality Identification • Quality Maintenance 	<p>ex: (2 hrs)</p>
<p>Third week</p>	
<p>In this topic students will learn the:</p> <ul style="list-style-type: none"> • Quality Characteristics of Poultry Products • Ensuring quality carcass and meat in broilers • Sensory Attributes of Poultry Products • Stress and welfare 	<p>ex: (2 hrs)</p>
<p>Fourth week</p>	
<ul style="list-style-type: none"> • Chemical composition and nutritional content of raw poultry meat • Contributions of poultry to the human diet • Comparison between poultry meat and beef • Effect of processing on meat quality 	<p>ex: (2 hrs)</p>
<p>Fifth week</p>	
<ul style="list-style-type: none"> • Comparison of Amino Acid Composition of Various Animal Foods • Factors affecting poultry meat quality • Proportions of Different Parts of Carcasses • Moisture Absorption During Washing and Chilling • Marketing poultry • Poultry processing by products 	<p>ex: (2 hrs)</p>
	<p>ex: (2 hrs)</p>

<p><u>Sixth week</u></p> <ul style="list-style-type: none"> • Outlooks of egg product processing technology • Improving the safety and quality of eggs and egg products • New opportunities for improving health: enriched eggs • The proportion of eggs components 	<p>ex: (2 hrs)</p>
<p><u>Seventh week</u></p> <ul style="list-style-type: none"> • Internal egg quality • Chemistry of egg and egg products • Factors influencing the nutritional content of eggs • Antinutritional factors associated with the egg 	<p>ex: (2 hrs)</p>
<p><u>Eighth week</u></p> <ul style="list-style-type: none"> • Misconception about the nutritive value of eggs • Type of processed eggs • Processing of eggs 	<p>ex: (2 hrs)</p>
<p><u>Ninth Week</u></p> <ul style="list-style-type: none"> • Egg products industry • Natural Egg Products • Types Of Dried Egg Products • Drying Characteristics Of Egg Products • Fermenting Egg White 	<p>ex: (2 hrs)</p>
<p><u>Tenth week</u></p> <ul style="list-style-type: none"> • Pasteurizing Liquid Egg Products • The pasteurizing process • Nonfood uses of eggs (for read only) 	<p>ex: (2 hrs)</p> <p>ex: (2 hrs)</p>
<p><u>Eleventh Week</u></p> <ul style="list-style-type: none"> • Biological Uses of Egg • Medical and Pharmaceutical Uses • Purified Proteins • Artificial Insemination • Manufacturing • 	

Twelfth Week

- **Artistic and Cultural Uses of the Egg**
- **Egg Decoration**
- **Eggshell Mosaics**
- **Functional Additives**

Thirteenth week

- **Role Of Chemical Additives**
- **Products; Packages; Thermal Properties**
- **Product Changes Due to Freezing**

Fourteenth week

- **Frozen egg rolls processing**
- **Frozen Scrambled-Egg mixes**
- **Desugarization of Egg Products**

Fifteenth week

- **Reactivity Of Glucose In Dried Eggs**
- **Interaction Of Glucose And Proteins**
- **Interaction Of Glucose And Cephalin**
- **Methods Of Desugarization**
- **Industry Glucose-Removal Practices**

19. Examinations:

The first exam for student at the end of the six week and the second exam at the end of the fifteenth week.

In regard to this subject the type of exam will be as follow:

1. Explain **how** or **what** are the reasons for or explain...?,
Examples:

- What is the reason of the

Typical answer:

- Define? Explain in detail what are the factors which affect the

2. **True or false type of exams:** In this type of exam a short sentence about a specific subject will be provided, and then students will comment on the trueness or falseness of this particular sentence.

Example: Put letter F (false) or letter T (true) in front of the following:

3. Multiple choice: In this type of exam there will be a number of phrases next or below a statement, students will match the correct phrase.

Example:

1-

2-

20. Extra notes:

Here the lecturer shall write any note or comment that is not covered in this template and he/she wishes to enrich the course book with his/her valuable remarks.

21. Peer review

پیداچوونہوہی ھاوہل

This course book has to be reviewed and signed by a peer. The peer approves the contents of your course book by writing few sentences in this section.

(A peer is person who has enough knowledge about the subject you are teaching, he/she has to be a professor, assistant professor, a lecturer or an expert in the field of your subject).

نہم کورسبووکه دهبیت له لایهن ھاوہلکی ئەکادیمیوہ سہیر بکرنیت و ناوہرۆکی بابەتەکانی کورسەکه پەسەند بکات و جەند ووشەیک بنووسنیت لەسەر شیاوی ناوہرۆکی کورسەکه و واژووی لەسەر بکات. ھاوہل ئەو کەسەیکە که زانیاری ھەبیت لەسەر کورسەکه و دەبیت پلەئێ زانستی له مامۆستا کەمتر نەبیت.