

Food Technology Department

College of Agricultural Engineering Sciences

Salahaddin University - Erbil

Subject: Experimental Design

Course Book – (Second Year)

Lecturer's name Dr. Rebin Aswad Mirza (Theory)

Mr. Azad Shamsaddin (Practical)

Academic Year: 2022-2023

1. Course name	Fall course
2. Lecturer in charge	Theory: Dr Rebin Aswad Mirza and Assist Prof Dr Khalid
	Ismail Aziz
	Practical: Mr. Azad Shamsaddin Salih
3. Department/ College	Animal Resource Department / Agriculture College
4. Contact	e-mail: rebinaswed@yahoo.com
	<u>rebin.mirza@su.edu.krd</u>
	azad.salih2@su.edu.krd
	Tel: (optional) 07504703477
5. Time (in hours) per week	Theory: 2
	Practical: 3
6. Office hours	5 day a week
7. Course code	
8. Teacher's academic	I gained a Ph.D. degree in July 2015 in Poultry Production
profile	and Technology at the University of Plymouth in the UK.
Theory:	I have MSc Degree in Poultry Production and Technology in
	2008 at Salahaddin University. I have got a BSc in 2003 in
Dr Rebin Aswad Mirza	Animal Resources Agriculture College Salahaddin University
	- Erbil, Kurdistan Region of Iraq. I employed in 2003 at the
	Animal Resources Department in Agriculture College. In 2010
	I started to work as a Lecturer in Animal Resources
	Department and gave a lecture to undergraduate students
	and now to the postgraduate students. Now, I am a head of
	Fish Resources and Aquatic Animals department.
Practical:	
	I graduated from the Animal Resources department – College
Mr. Azad Shamsaddin Salih	of Agricultural Engineering sciences – Salahaddin university
	in 2000, and I got a master's degree (MSc) from the Animal
	Resources department – College of Agricultural Engineering
	sciences – Salahaddin university in 2006, and now I am a
	Ph.D. student.
9. Keywords	

*Course Book

10. Course overview:

In this section the lecturer shall write an overview about the subject he/she is giving. The course overview must cover:

This is an introductory course that focuses on data and experimental reasoning. This course aims to give students an understanding of the main ideas of experiment design and useful skills for working with data. Also, students will be introduce to the major concepts and tools for collecting, analyzing and drawing conclusions from data.

A course dealing with statistical and how to setup design for their experiment, including measures of central tendency and dispersion, the Central Limit Theorem, Sampling, Estimation, Hypothesis testing, Analysis of Variance, Correlation and Regression analysis, Multiple Regression and Statistical Forecasting and the design that use in this course.

- The importance of studying the subject
- Understanding of the fundamental concepts of the course
- Principles and theories of the course
- A sound knowledge of the major areas of the subject
- Sufficient knowledge and understanding to secure employment

This should not be less than 200 words

11. Course objective:

This should not be less than 100 words

Students will be introduce to the basic principles of data analysis and be able to collection data from an experiment. Identify and describe some design to analyse data. By completing this course the student will learn to perform the following: 1) How to analyse data by applying suitable design to calculate data and how to test this data to find a significant differences between treatment in the appreciate design. Understand the concept of p-values.

12. Student's obligation

In this section the lecturer shall write the role of students and their obligations throughout the academic year, for example the attendance and completion of all tests, exams, assignments, reports, essays...etc

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

لێر ه مامۆستا رێگەى وانە ووتنەوە دەنووسێت، بۆ نموونە: داتاشۆ و پاوەرپۆينت، سەر تەختەرەش، تەختەى سېى، سمارتبۆرد يان مەلزەمە... ھتد

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

14. Assessment scheme

Breakdown of overall assessment and examination

لێره مامۆستا جۆرى ھەڵسەنگاندن (تاقيكردنەوەكان يان ئەزموونەكان) دەنووسێت بۆ نموونە تاقيكردنەوەى مانگانە، كويزەكان، بيركردنەوەى رەخنەگرانە (پريزەنتەيشن)، راپۆرت نووسين، ووتار نووسين يان ئامادەنەبوونى خوێندكار لە پۆلدا…هند. ئامانە چەند نمرەى لەسەردەبێت و مامۆستا چۆن نمرەكان دابەشدەكات؟

First Exam after five lectures

Second Exam after ten lectures.

Mark Distribution:

Monthly Exam 50% (Theoretical 15% + Practical 35%)

Final Exam50% (Theoretical)Final Mark100%

15. Student learning outcome:

پرکردنموهی ئهم خانمیه زۆر گرنگه، مامۆستا دەرئەنجامەكانی فێربوون دەنووسێت. بۆ نموونه: ڕوونی ئامانجه سەرەكيەكانی كۆرسەكه (بابەتەكه) بۆ خوێندكار گونجاندنی ناوەرۆكی كۆرسەكه به پێويستی دەرەوە و بازار ی كار قوتابی چی نوی فێردەبێت له رێگهی پێدانی ئەم كۆرسەوه؟

This should not be less than 100 words

The objective of this course is to provide an understanding for the graduate business student on Experimental concepts includes Complete randomized design, Randomized Complete Block Design, Latin Square Design and Factorial Design.

16. Course Reading List and References:

- Key references:
- Useful references:
- Magazines and review (internet):
- Kirk, P. (2013) Experimental Design. Fourth Edition. Sage publication, United Kingdom.
- Thomas, P. R. (2007) Modern Experimental Design. John Wiley and Sons. Printed in United State of America.

17. The Topics: Theory	Lecturer's name
In this section the lecturer shall write titles of all topics he/she is	Lecturer's name
going to give during the term. This also includes a brief description	Dr Rebin Aswad Mirza
of the objectives of each topic, date and time of the lecture	And Dr Khalid Ismail
Each term should include not less than 16 weeks	ex: (2 hrs)
The titles of the objects will be the following:	
Introduction to statistics	
Introduction of experimental design	
Complete Randomized Design	26/1/2023
Equal and unequal CRD	
Different type of test	
Dunnet t test and lsd test	
Duncan test	
Randomized Complete Block Design	
Latin Square Design	
Factorial Design	
18. Practical Topics (If there is any)	
In this section The lecturer shall write titles of all practical topics	Lecturer's name
he/she is going to give during the term. This also includes a brief	ex: (3 hrs)
description of the objectives of each topic, date and time of the	Mr. Azad Shamsaddin
lecture	ex: 24/1/2023
Introduction to statistics	Computer application
Introduction of experimental design	by Excel and SPSS

Directorate of Quality Assurance and Accreditation

Winnstry of Higher Education and Scientific research	
Complete Randomized Design	
Equal and unequal CRD	
Different type of test	
Dunnet t test and lsd test	
Duncan test	
Randomized Complete Block Design	
Latin Square Design	
Factorial Design	
Two and three factor with CRD and RCBD	

19. Examinations:

1. Compositional: In this type of exam the questions usually starts with Explain how, What are the reasons for...?, Why...?, How....? With their typical answers

Examples should be provided

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. Examples should be provided

3. Multiple choices:

In this type of exam there will be a number of phrases next or below a statement, students will match the correct phrase. Examples should be provided.

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

پيداچوونەوەى ھاوەڭ

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).

ئەم كۆرسىبوركە دەبيّت لەلايەن ھاوەلْيّكى ئەكادىميەرە سەير بكريّت و ناومرۆكى بابەتەكانى كۆرسەكە پەسەند بكات و جەند ووشەيەك بنووسيّت لەسەر شيارى ناوەرۆكى كۆرسەكە و واژووى لەسەر بكات. ھاوەل ئەر كەسەيە كە زانيارى ھەييّت لەسەر كۆرسەكە و دەبيت پلەي زانستى لە مامۆستا كەمتر نەييّت.