



CP03014: OPTIMIZATION IN FOOD ENGINEERING



Credits 2: Theory 2 – Practical 0

EXPECTED LEARNING OUTCOMES

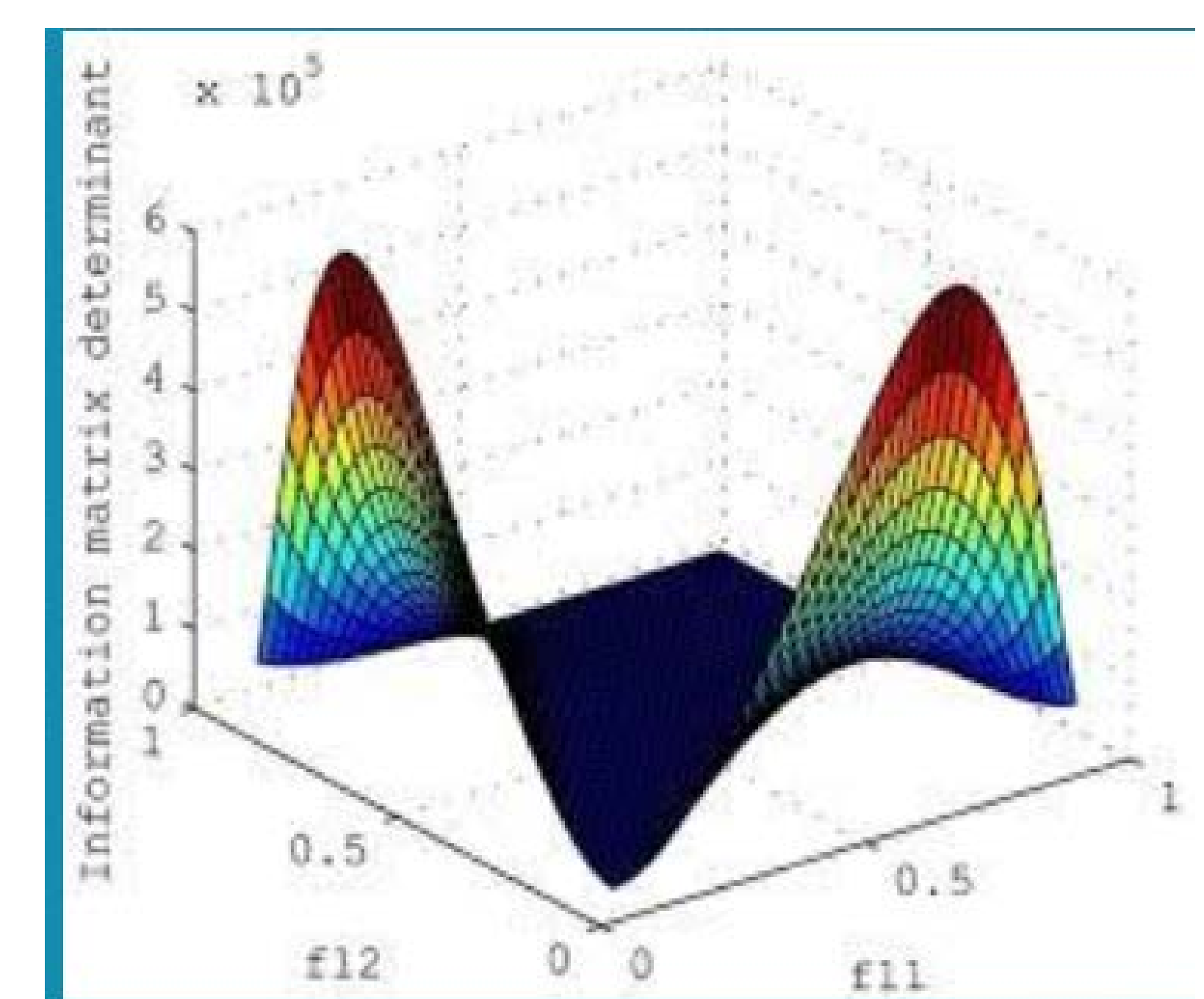
Notation	Expected learning outcomes After completing this course, a student is able to:	Program expected learning outcomes
Knowledge		
K1	Analysis of main effects and interactions of input factors on output. From there, proposing solutions to improve quality.	ELO1, ELO3
K2	Analyze the influence of technological factors (input through optimal, second order, second order experiment design models, ANOVA variance analysis model, time optimization model) on quality quantity of output factors. From there, explain and describe the influence of technological factors on the production of products	ELO1. ELO4
Skills		
K3	Using statistical processing software (Minitab ...) to synthesize and analyze data, find the output for an optimal problem in food technology, from which the food production process can be managed and operated.	ELO8
K4	Using statistical software to analyze data, effectively solve research problems	ELO9
K5	Calculate basic knowledge of optimization model, experimental design, analysis of ANOVA variance to analyze and process data within the subject.	ELO10
Attitudes		
K6	Meet the requirements of personal, social and environmental responsibility in the field of food technology Show seriousness and responsibility in self-study	ELO15

COURSE DESCRIPTIONS

Chapter 1: Introduction
 Chapter 1: Theory of experimental design
 Chapter 3: Full factorial design experiment
 Chapter 4: Response surface methodology
 Chapter 5: Time optimal model
 Chapter 6: Apply statistic processing software in optimization

STUDENT TASKS

- Attending at least 75% of theory hours.
- Prepare for lectures, read reference materials before attending the classes
- Actively pose questions, exchange knowledge, enthusiastic learning.



LEARNING METHODS

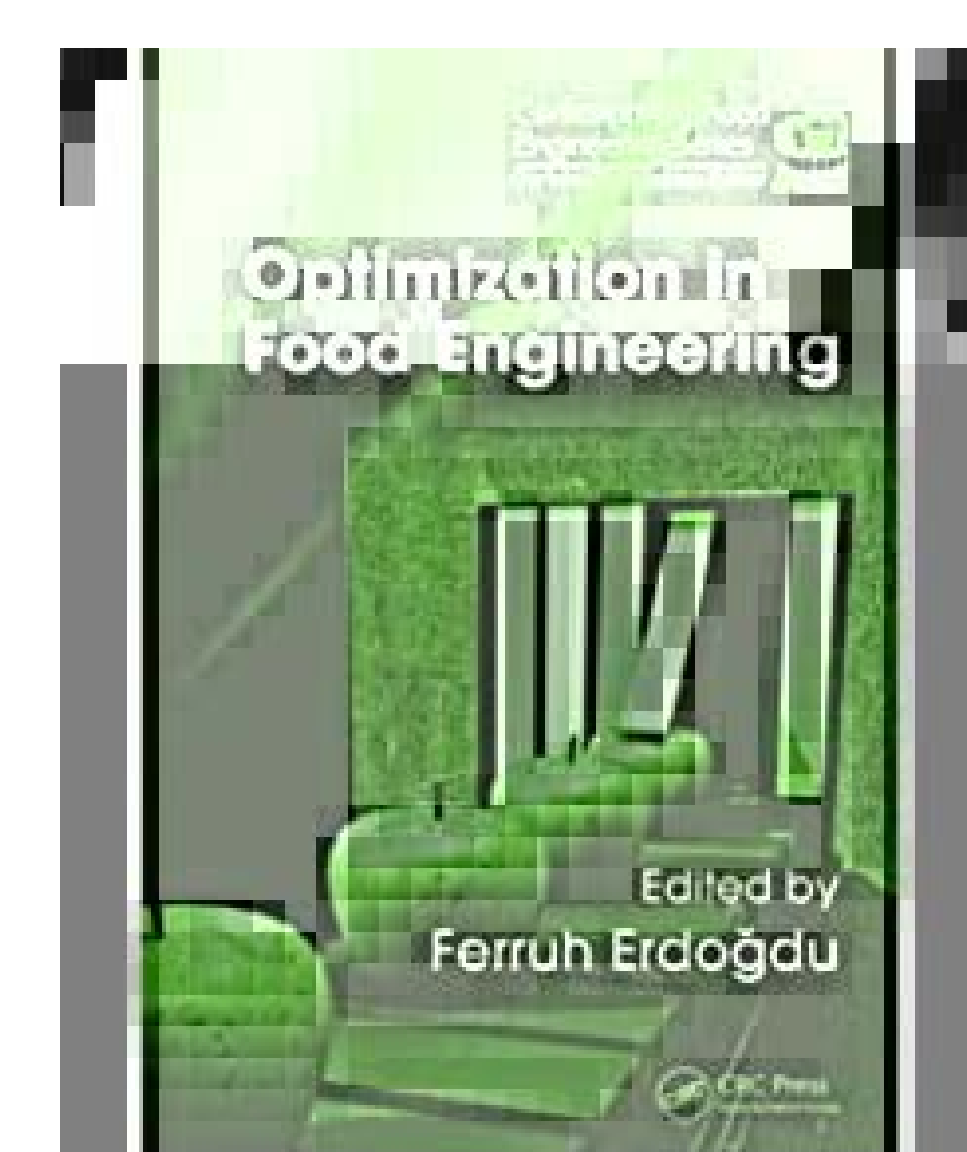
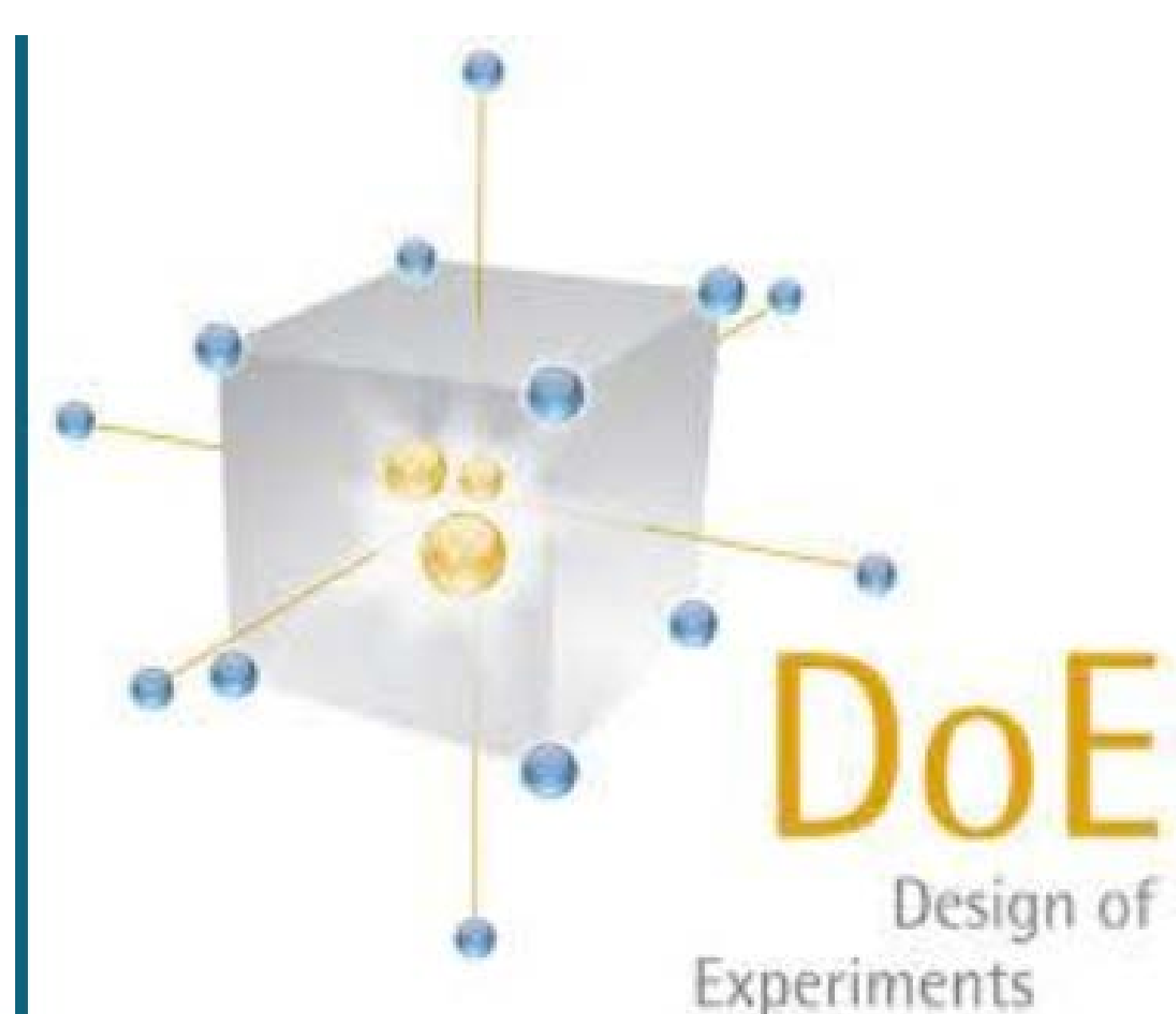
- Attending the classes
- Preparing and reading materials before coming to classes
- Group discussion

ASSESSMENT METHODS

- Score sale: 10
- Course score is total score of all rubrics multiply with weighting factor of each rubric
- Exercise assessment: 10%
- Process assessment: 30%
- Final assessment: 60%

LECTURER IN CHARGE

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