**Course Description Form**

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| 1. Course Name: | | | | | | | | |
| Mathematical Economics (1) | | | | | | | | |
| 1. Course Code: | | | | | | | | |
|  | | | | | | | | |
| 1. Semester / Year: | | | | | | | | |
| First | | | | | | | | |
| 1. Description Preparation Date: Semester 2023/2024 | | | | | | | | |
|  | | | | | | | | |
| 1. Available Attendance Forms: | | | | | | | | |
| Attendance only | | | | | | | | |
| 1. Number of Credit Hours (Total) / Number of Units (Total) | | | | | | | | |
|  | | | | | | | | |
| 1. Course administrator's name (mention all, if more than one name) | | | | | | | | |
| Name : Ali Talib Shihab Email : [Ali.shihab@uobasrah.edu.iq](mailto:Ali.shihab@uobasrah.edu.iq) | | | | | | | | |
| 1. Course Objectives | | | | | | | | |
| **Course Objectives** | | | | 1- The student must be familiar with the conceptual framework of mathematical economics  2 - Providing the student with information on the mathematical methods used in presenting and solving partial and static equilibrium models, along with an explanation of the impact of micro or macro economic policies on market equilibrium at the micro level and income at the macro level (taxes and subsidies).  3- Employing the product method used in static aggregate equilibrium analysis and economic planning | | | | |
| 1. Teaching and Learning Strategies | | | | | | | | |
| **Strategy** | | Providing the student with the basics and additional topics related to the educational outcomes, assigning students to solve assignments individually and jointly, collecting information about the course topics from various sources, exchanging the scientific material and its sources with each other through lectures and group discussion of the program topics, as well as solving examples, and encouraging external readings in the study program topics | | | | | | |
| 1. Course Structure | | | | | | | | |
| **Week** | **Hours** | | **Required Learning Outcomes** | | | **Unit or subject name** | **Learning method** | **Evaluation method** |
| 1 | 3 | | To clarify the concepts and terminology of mathematical economics | | | **Introduction to mathematical economics** | - lecture  - Question and answer method  - Discussion style  - Method of solving questions | - Daily preparation  - Participation in the classroom  - Class tests  - Extracurricular duties  - First exam  - A second exam  - final exam |
| 2 | 3 | | Explain what static equilibrium is | | | **The concept of static equilibrium** |
| 3 | 3 | | Understand the diversified liquid market | | | **Simple partial market equilibrium** |
| 4 | 3 | | Understand the market and taxes | | | **Market equilibrium and taxes** |
| 5 | 3 | | Understand the market juice and pubs | | | **Market equilibrium and subsidies** |
| 6 | 3 | | Understanding the fluid market for unconventional rates | | | **Market equilibrium for nonlinear equation** |
| 7 | 3 | | Understand the market for the products of the two producers | | | **The equilibrium price and quantity for two-commodity model** |
| 8 | 3 | | Understand the market of three models | | | **The equilibrium price and quantity for three-commodity model** |
| 9 | 3 | |  | | | the first exam |
| 10 | 3 | | Understanding the equilibrium of simple national income | | | **Static simple national income equilibrium** |
| 11 | 3 | | Understanding national income balance | | | **national income equilibrium** |
| 12 | 3 | | Understanding the balance of national income and disposable income | | | **Equilibrium income and disposable income** |
| 13 | 3 | | Understand the nature and use of product user tables | | | **Leontief model ( Input – output model )** |
| 14 | 3 | |  | | | Second exam |
| 15 | 3 | |  | | | review |
| 1. Course Evaluation | | | | | | | | |
| Exams (20), Solving assignments (10), Comprehension score (5), Participation (10), Attendance (5)...... Final score (50) | | | | | | | | |
| 1. Learning and Teaching Resources | | | | | | | | |
| Required textbooks (curricular books, if any) | | | | |  | | | |
| Main references (sources) | | | | | **1 - Alpha C .Chiang , Fundamental method of mathematical Conmics , 1984**  **2- علي درب كسار الحيالي ، الاقتصاد الرياضي ، 2014**  **3- كريم مهدي الحسناوي , المدخل الى الاقتصاد الرياضي , 1988** | | | |
| Electronic References, Websites | | | | | **1- عدنان فرحان الجوراني , الرياضيات الاقتصادية تطبيقات و حلول , 2016**  **2 – Paul H. Daus and William M. Whyburn , introduction to mathematical analysis 1962** | | | |