

**OSTİM TECHNICAL UNIVERSITY  
FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES**

**COURSE SYLLABUS FORM  
2020-2021 FALL**

<b>ECON 105 Research Methods with Computer Applications I</b>							
<b>Course Name</b>	<b>Course Code</b>	<b>Period</b>	<b>Hours</b>	<b>Application</b>	<b>Laboratory</b>	<b>Credit</b>	<b>ECTS</b>
Research Methods with Computer Applications I	ECON 105	1	3	0	0	3	3

<b>Language of Instruction</b>	English
<b>Course Status</b>	Compulsory
<b>Course Level</b>	Bachelor
<b>Learning and Teaching Techniques of the Course</b>	Lecture, Discussion, Question Answer

**Course Objective**

The aim of the course is to introduce students to the principles and practicalities of doing research. Basic grounding in social science concepts, analytical approaches, research tools, selecting problems, reviewing the literature and presenting research are the major topics of the course.

**Learning Outcomes**

The students who succeeded in this course will be able;

- comprehend the process of emergence of social and natural sciences.
- have good knowledge about different methodologies in social and natural sciences
- understand the place of economics within social sciences.
- understand the divisions within economics and different methodologies utilized in economics.
- learn how to develop and investigate a research question in economics.
- have a knowledge about the Excel, R, Python and Matlab programs.

**Course Outline**

This course introduces statistical reasoning, emphasizing how Statistics can help us understand the world. Topics include numerical and graphical summaries of data, data acquisition and experimental design, probability, hypothesis testing, confidence intervals, correlation and regression. Students will learn to apply statistical concepts to data and reach conclusions about real-world problems.

Statistical reasoning is necessary to conduct research at any level, and hence to make decisions. This course is the starting point to develop your statistical skills. It is followed by the Statistics sequence in the second year. That sequence will be more technical, using calculus, and more comprehensive. Eventually, the Econometrics sequence in the third year will contribute towards developing your analytical skills in economics.

<b>Weekly Topics and Related Preparation Studies</b>		
<b>Weeks</b>	<b>Topics</b>	<b>Preparation Studies</b>
1	Data and Statistics	
2	What is Hypothesis Testing	
3	Descriptive Statistics: Tabular and Graphical Presentations	
4	Descriptive Statistics: Tabular and Graphical Presentations II	
5	Descriptive Statistics: Numerical Measures I	
6	Descriptive Statistics: Numerical Measures II	
7	Introduction to Probability	
<b>8</b>	<b>Midterm</b>	
9	Discrete Probability Distributions	
10	Continuous Probability Distributions	
11	Sampling and Sampling Distributions I	
12	Sampling and Sampling Distributions II	
13	Interval Estimation	
14	Hypothesis Tests I	
15	Hypothesis Tests II	
<b>16</b>	<b>Final Exam</b>	

<b>Textbook(s)/References/Materials:</b>
<ul style="list-style-type: none"> <li>Anderson D., Sweeney D., and Williams T. (2014) Essentials of Statistics for Business and Economics, 7. ed., Cengage Learning.</li> </ul>

<b>Assessment</b>		
<b>Studies</b>	<b>Number</b>	<b>Contribution margin (%)</b>
Continuity		
Lab		

Application		
Field Study		
Course-Specific Internship (if any)		
Quizzes / Studio / Critical		
Homework		
Presentation		
Projects		
Report		
Seminar		
Midterm Exams / Midterm Jury		
General Exam / Final Jury		
	<b>Total</b>	<b>100</b>
<b>Success Grade Contribution of Semester Studies</b>		
<b>Success Grade Contribution of End of Term</b>		
	<b>Total</b>	<b>100</b>

<b>Relationship Between Course Learning Outcomes and Program Competencies</b>						
Nu	Learning Outcomes	Contribution Level				
		1	2	3	4	5
1	To learn the definition, characteristics and importance for economies of international trade					x
2	To learn the basic information and principles of international trade transactions					x
3	To have theoretical and practical knowledge and skills to carry out export, import, regional cooperation and organizations, free zone practices and other international trade activities					x
4	To gain professional competencies to work in national and international commercial organizations and unions, customs, economic consultancy, public and private sector organizations					x
5	To know the methods of finding market and customer, learning how to access information					x
6	To learn how to enter international markets and maintain their presence in these markets					x
7	To have the knowledge and equipment to be able to execute and complete the project by taking part in national and international projects and project teams					x
8	To have critical, creative and innovative thinking skills to be able to carry out activities related to the field				x	
9	To be individuals with improved social and intellectual capacity, visionary, high ethical values, ability to adapt to group communication and teamwork.				x	
10	To be able to identify problems related to the field, to reach relevant sources, to be able to analyze and synthesize to produce scientific knowledge and to carry out a research, and to have a command of the legislation related to the field.					x
11	To be aware of ethical behavior principles in all areas of international trade and act accordingly					x

<b>ECTS / Workload Table</b>			
<b>Activities</b>	<b>Number</b>	<b>Duration (Hours)</b>	<b>Total Workload</b>
Course hours (Including the exam week: 16 x total course hours)			
Laboratory			
Application			
Course-Specific Internship			
Field Study			
Study Time Out of Class			
Presentation / Seminar Preparation			
Projects			
Reports			
Homework			
Quizzes / Studio Review			
Preparation Time for Midterm Exams / Midterm Jury			
Preparation Period for the Final Exam / General Jury			
<b>Total Workload</b>		<b>(79/30 = 2.63)</b>	<b>79</b>