ECTS COURSE INFORMATION FORM

School/Faculty/Institute	**Faculty of Economics and Administrative Sciences**	
Program	**B.A. in Economics**	Core
Semester	**Fall 2019-2020**	

Course Code				
Course Title in English	Probability and Statistics for Social Sciences II			
Course Title in Turkish	Sosyal Bilimler için Olasılık ve İstatistik II			
Language of Instruction	English			
Type of Course	Lecture			
Level of Course	Undergraduate - Introductory			
Semester	Fall			
Contact Hours per Week	Lecture: 2	Recitation:	Lab:1	Other:
Estimated Student Workload	150 hours per semester.			
Number of Credits	6 ECTS			
Grading Mode	Standard Letter Grade			
Pre-requisites	None			
Expected Prior Knowledge	None			
Co-requisites	None			
Registration Restrictions	Only Undergraduate Students			
Overall Educational Objective	To learn the basic concepts of probability and statistics, recognize and distinguish the properties of important distributions and apply probability and statistics concepts in solving real life economic and business problems.			
Course Description	This is the second part of a basic statistics course for economics and business administration majors. Some major topics are: sampling and sampling distribution, confidence intervals, hypothesis testing, two population tests, analysis of variance and sampling methods.			
Course Description in Turkish	Bu ders ekonomi ve işletme öğrencileri için hazırlanmış olan temel istatistik dersinin ikinci kısmıdır. Dersin işlenişi uygulama ağırlıklıdır. Bazı ana konular şöyledir: örnekleme ve örnekleme dağılımı, güven aralığı, hipotez testi, iki anakütle testi, varyans analizi, örnekleme yöntemleri.			
Course Learning Outcomes and Competences	1. Understand the basic concepts of sampling distributions, estimation, confidence intervals, and hypothesis testing (type I and II errors) 2. Explain the differences among various statistical techniques and identify an appropriate technique for a given set of variable and research questions 3. Design, solve and interpret the results of hypothesis tests (t-test, z-test, chi-square tests) related to the population mean, population proportion, population differences, goodness to fit, and tests of independence 4. Solve and interpret the results of Analysis of Variance (ANOVA) to compare population means. 5. Use MS Excel to apply statistical concepts learnt during the course.			
Relation to Program Outcomes and Competences: N=None S=Supportive H=Highly Related				

Program Outcomes and Competences	Level	Assessed by
	N/S/H	Exam, HW, Lab, Presentation, etc.
1. Has a broad understanding of economics with a deep exposure to other social sciences and mathematics.	N	
2. Demonstrates knowledge and skills in understanding the interactions of different areas of economics.	N	
3. Displays a sound comprehension of microeconomic and macroeconomic theory.	N	
4. Applies economic concepts to solve complex problems and enhance decision-making capability.	N	
5. Uses quantitative techniques to analyze different economic systems.	N	
6. Applies theoretical knowledge to analyze issues regarding Turkish and global economies.	N	
7. Demonstrates proficiency in statistical tools and mainstream software programs to process and evaluate economic data.	H	Exams, Quizzes, Assignments
8. Behaves according to scientific and ethical values at all stages of economic analysis: data collection, interpretation and dissemination of findings.	S	Exams, Quizzes, Assignments
9. Uses written and spoken English effectively (at least CEFR B2 level) to exchange scientific information.	S	Exams, Quizzes, Assignments
10. Exhibits individual and professional ethical behavior and social responsibility.	S	Exams, Quizzes, Assignments
11. Displays learning skills necessary for further study with a high degree of autonomy	S	Exams, Quizzes, Assignments

Name of Instructor	**Assoc. Prof. Firat Bilgel**	
Course Contents	Week	Topic
	1.	Syllabus, Introduction, MATH 203 Recap
	2.	Sampling and Sampling Distributions (Chapter 6)
	3.	Sampling and Sampling Distributions (Chapter 6)
	4.	Confidence Interval Estimation: Single Population (Chapter 7)
	5.	Confidence Interval Estimation: Single Population (Chapter 7)
	6.	Confidence Interval Estimation: Further Topics (Chapter 8)
	7.	Confidence Interval Estimation: Further Topics (Chapter 8)
	8.	Midterm
	9.	Hypothesis Tests of a Single Population (Chapter 9)
	10.	Hypothesis Tests of a Single Population (Chapter 9)
	11.	Two Population Hypothesis Tests (Chapter 10)
	12.	Two Population Hypothesis Tests (Chapter 10)
	13.	Analysis of Variance (Chapter 15)
	14.	Sampling Methods (Chapter 17)
Required/ Recommended Readings	Newbold, P., Carlson, W.L., Thorne, B.M. (2013) Statistics for Business and Economics, eight edition. Pearson Education. ISBN: 9780273767060. Pages: 792	
Teaching Methods	Active learning	
Homework and Projects		
Laboratory Work	Once every other week, a one hour lab session is conducted for Excel applications.	
Computer Use	NA	
Other Activities		
Assessment Methods	Pre-class work: You will be given one pre-class question at a time to solve for a total of 5 questions. Each question is worth 2 percentage points for a total of 10 percent of the total grade.	

	Quizzes: You will be given time to answer a brief list of questions directly relevant to course topic at the start of the class for a total of 4 quizzes. Only the best three quizzes will be taken into account. 15 percent of the total grade (5 points each). Midterm: 25 percent of the total grade Final: 50 percent of the total grade If you are unable to attend a big portion of the course for a legitimate reason (e.g. serious health problem) your grade will be based on the rest of the performance in this course. However, if total unattempted credits for any reason exceed 30% you cannot take the final exam and will get an FZ.
Course Administration	**Course Instructor:** Assoc. Prof. Firat Bilgel, email: bilgelf@mef.edu.tr **Lecture time and place**: TBA **Attendance/participation:** Students are expected to prepare for the lecture via assigned videos and reading materials. Students are responsible to follow the announcements, course materials available on Blackboard system. **Formal use of e-mails:** Students are expected to use their @mef accounts for email traffic. The instructor is only responsible for the information sent/received through Blackboard system and emails using @mef account. The course instructor assumes that any information sent through email will be received in 24 hours, unless a system problem occurs. **Grading and evaluation:** Evaluation will be based on the student learning outcomes. It is strongly recommended to complete all the work in a timely fashion. Late submissions will not be accepted. **Missing midterm exam:** Faculty regulations. **Missing final exam:** Faculty regulations. **Missing quizzes**: No make up **Academic integrity:** All students of MEF University are expected to be honest and comply with academic integrity. Students are expected to do their own work and neither give nor receive unauthorized assistance. Disciplinary action will be taken in case of suspicion.
ECTS Student Workload Estimation	

Activity	Number of weeks	Hours			Calculation
		Preparing for the activity	Spent in the activity itself	Completing the activity requirements	
Lecture	14	2	2		56
Lab	1	1	1		2
Midterm	1	15	1,5		16,5
Final	1	25	2		27
Coursework	14		2,5		35
Total Workload					136,5
ECTS					5,5