OSTIM TECHNICAL UNIVERSITY
FACULTY OF ENGINEERING

COURSE SYLLABUS FORM
2020-2021 SPRİNG

<table>
<tr><td colspan="3">Offered by: Dr. Şehla Eminoğlu</td><td>Offered to: 1st year 2st semester of Mechanical Engineering, Computer Engineering and Electrical and Electronic Engineering</td></tr>
<tr><td colspan="3">Name of the Department: Engineering</td><td>Course Name:
Engineering Mathematics II</td></tr>
<tr><td colspan="3">Course Level:</td><td>Course Code:
Math 102</td></tr>
<tr><td colspan="3">Form Submitting/Renewal Date:</td><td>Course Status: Compulsory</td></tr>
<tr><td colspan="3">Language of Instruction: English</td><td>Instructor/s: Dr. Şehla Eminoğlu</td></tr>
<tr><td colspan="3">Prerequisite: Engineering Mathematics I</td><td>Prerequisite to: Engineering Mathematics I</td></tr>
<tr><td colspan="3">Weekly Course Hours: 4 hours</td><td>Course Coordinator: Dr. Şehla Eminoğlu</td></tr>
<tr><td>Theory</td><td>Application</td><td>Laboratory</td><td>National Credit:</td></tr>
<tr><td></td><td></td><td></td><td>ECTS Credit:</td></tr>
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Learning Outcomes:

1. Evaluate integrals using techniques of integration, such as substitution, inverse substitution, partial fractions and integration by parts.
2. Determine convergence/divergence of improper integrals, and evaluate convergent improper integrals.
3. Estimate and compare series and integrals to determine convergence.
4. Graph polar coordinate equations.
5. Sketch the graph of surfaces in the three-dimensional coordinate systems
6. Take the derivative of functions with several variebles.
7. Evaluate double integrals over rectangles.
8. Evaluate triple integrals over rectangles.

Learning and Teaching Strategies:

1. Primarily to give the basic idea of topics and help the students to see the big picture.
2. To support the issues with a variety of examples.
3. Through regular homework research and team activities.
4. Holding midterm exam and final exam.

Assessment Methods Class attendance is a requirement of the course		
	If used, check as (X).	Grading (%)
Semester Requirements		
Mid-term exam	X	40
Quizzes **Homework Assignments/ Presentation**		
Final Exam	X	60
Active participation to the lecture		
TOTAL		100

Assessment Criteria
Grading will be made at the end of the exams and will be shared with students.

Textbook(s)/References/Materials:
Textbook(s): G.B Thomas, J. Hass, M.D.Weir, C. Heil, *Thomas' Calculus,* 14th Edition, (Pearson Global Edition)
R.A. Adams, *Calculus*: A complete course 8-th revised ed. , Prentice Hall, 2013.
J. Stewart, *Calculus*, Metric Version, Eighth Edition, 2016, Cengage Learning
References:
Materials:

Course Policies and Rules:
All students must be in class before the lecture starts.
Every student is expected to respect the instructor's right to teach and other students' right to learn.
All students are expected to demonstrate honesty in their academic pursuits. Students are expected to respect and uphold the standards of honesty in submitting written work to instructors. Though occurring in many forms, plagiarism in essence involves the presentation of another person's work as if it were the work of the presenter. Any cheating or plagiarism will result in disciplinary action to be determined by the instructor based on the severity and nature of the offense. It is the student's responsibility to review the University and YÖK policies on Academic Honesty.
If you have any special needs or requirements pertaining to this course, please discuss them with the instructor early in the term.

Contact Details for the Instructor:

Contact with the instructor through e-mail and keep in mind the necessary time of checking the e-mail for your urgent situations. The contact address is: sehla.eminoglu@gmail.com
Office Hours:

Course Outline: Examination dates should be specified in the course content given below. The examination dates can be changed later.		
Week	**Topics:**	**Note:**
1.	Techniques of Integration	
2.	Techniques of Integration	
3.	Infinite Sequences and Series	
4.	Infinite Sequences and Series	
5.	Parametric Equations and Polar Coordinates	
6.	Parametric Equations and Polar Coordinates	
7.	**Midterm Exam**	
8.	Vectors and the Geometry of Space	
9.	Vector Valued Functions and Motion in Space	
10.	Partial Derivatives	
11.	Partial Derivatives	
12.	Multiple Integrals	
13.	Multiple Integrals	
14.	Integrals and Vector Fields	
15.	Integrals and Vector Fields	
16.	**Final Exam**	

ECTS/Workload Table

Activities	Number	Time(h)	Total Workload
Course hours (Including exam week: 16 x total weekly course hours)	16	4	64
Laboratory			
Application			
Course specific internship			
Field Study			
Out-of-class study time	16	3	48
Presentation/Seminar Preparation			
Projects			
Reports			
Homeworks			
Quizzes			
Preparation time for Midterm Exams / Midterm Jury	1	15	15
Preparation time for Final Exam / Final Jury	1	20	20
Total Workload			**147**