Course Information

COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Introduction to mathematics II	FZK112	2. Semester	4 + 2	5.0	7.0

Prerequisites	None

Language of Instruction	Turkish
Course Level	Bacheclor's Degree (First Cycle)
Course Type	Compulsory
Mode of delivery	Face to face
Course Coordinator	Assist. Prof. Dr. Hasan DALGIN
Instructors	Assist. Prof. Dr. Hasan DALGIN
Assistants	
Course Objectives	This course aims to direct students about the field information at a sufficient level and help them use it during the education process in an efficient way
Course Content	Riemann integral; Indefinite integrals; Fundamental theorem of Analysis; Methods of integration; Applications of indefinite integral. Conics, parametric and polar curves, Sequences, series and convergence tests
Course Learning Outcomes	1) Apply indefinite integrals and integration methods 2) Interpret lower and upper Riemann sums 3) Evaluate definite integrals by using Lover and upper Riemann sums 4) Apply the integral techniques 5) Evaluate improper integrals 6) Interpret the properties of Sequences and series and convergence tests 7) Interpret Taylor and Maclaurin series and Series expansion of functions

WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Indefinite integrals, as the limit of the total areas	Face to face	
2. Week	Lower and upper Riemann sums, Riemann integral	Face to face	
3. Week	Properties of definite integral. Fundamental theorem of Analysis	Face to face	
4. Week	Substitution method. Trigonometric integrals	Face to face	
5. Week	Partial integration method. Simple fractional allocation method	Face to face	
6. Week	Area and volume calculation	Face to face	

Quick Access

Physics
- Qualification Awarded
- Level of Qualification
- Qualification Requirements and Regulations
- Specific Admission Requirements
- Recognition of Prior Learning
- Profile of the Program
- Program Key Learning Outcomes
- Occupational Profile of Graduates
- Access to Further Studies
- Course Structure & Credits
- Exam Regulations & Assessment & Grading
- Graduation Requirements
- Mode of Study
- Programme Director(or Equivalent)
- Evaluation Questionnaire
- TYYÇ

Course Information
- Course Information
- Weekly Course Content
- Resources
- Assessment
- Course Category
- CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES
- ECTS credits and course workload

7. Week	Calculation of curve length. Area of a surface of revolations	Face to face	
8. Week	Improper integrals	Face to face	
9. Week	Midterm Exam	Exam	
10. Week	Sequences, Convergence of series. Convergence tests	Face to face	
11. Week	Absolute and conditional convergence	Face to face	
12. Week	Power series	Face to face	
13. Week	Taylor and Maclaurin series	Face to face	
14. Week	Series expansion of functions	Face to face	
15. Week	General Review	Face to face	
16. Week	Final Exam	Exam	

RESOURCES

Recommended Sources
Calculus: A complete Course, Robert A. Adams, Addison-Wesley, 1999
Kalkülüs, James Stewart, TÜBA, 2007

ASSESSMENT

Measurement and Evaluation Methods and Techniques		
Midterm exam (40%), Final exam (60%)		
In-Term Studies	**Quantity**	**Percentage**
Mid Term Exam 1	1	40
Total	1	40
End-Term Studies	**Quantity**	**Percentage**
Final Exam	1	60
Total	1	60
Contribution Of In-Term Studies To Overall Grade		40
End-Term Studies		60
Total		100

COURSE CATEGORY

Course Category	Percentage
Support Courses	% 100

CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3	DK4	DK5	DK6	DK7
PY1	4	4	4	3	3	4	3	4
PY2	3	3	3	3	4	3	2	3
PY3	4	3	4	4	3	4	4	4
PY4	3	2	3	3	4	3	3	3
PY5	4	3	4	4	3	4	4	3
PY6	0	0	0	0	0	0	0	0

PY7	0	0	0	0	0	0	0	0
PY8	0	0	0	0	0	0	0	0
PY9	2	2	2	2	1	3	2	2
PY10	2	2	2	2	1	2	2	2
PY11	2	2	2	2	1	1	2	2
PY12	3	2	2	3	2	2	3	2
PY13	2	2	2	3	3	4	1	2
PY14	4	2	3	3	4	5	4	4
PY15	4	4	4	4	4	5	4	5

*DK = Course's Contrubution.

	0	1	2	3	4	5
Level of contribution	None	Very Low	Low	Fair	High	Very High

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ECTS CREDITS AND COURSE WORKLOAD

Event	Quantity	Duration (Hour)	Total Workload (Hour)
Further Study	2	7	14
Preliminary Study	12	3	36
Class Hours (14 weeks)	14	6	84
Final Exam Preparation	1	20	20
Final Exam	1	2	2
Mid Term Exam 1	1	2	2
Mid Term Exam Preparation	1	12	12
		Total Workload	170
		Total Workload / 25.5 (s)	6.67
		ECTS Credit of the Course	7