

ADIYAMAN UNIVERSITY: ARTS AND SCIENCE FACULTY DEPARTMENT OF MATHEMATICS

DESCRIPTION BOOKLET

2006

2025-2026

CONTENTS

- Department of Mathematics
- Mission & Vision
- Importance of Departments of Mathematics
- Why the Department of Mathematics?
- Job Opportunities for Graduates
- Highest and Lowest Placement Scores According to Central Placement
- Course Catalogue
- Activities

2006

Department of Mathematics

Adiyaman University Department of Mathematics was established in 1998, affiliated with İnönü University Adiyaman Faculty of Arts and Sciences and started accepting students in the academic year 1999-2000. In 2006, the Department of Mathematics was affiliated with Adiyaman University Faculty of Arts and Sciences.



Head of Department

Prof. Dr. Manaf MANAFLI

Vice Chairs

Assoc. Prof. Dr. Mustafa UÇKUN

Assoc. Prof. Dr. Şener YANAN

Academic Staff

Department of Analysis and Functions Theory

Prof. Dr. Seyit TEMIR

Prof. Dr. İbrahim Halil GÜMÜŞ

Prof. Dr. Faik GÜRSOY

Assoc. Prof. Dr. Mehmet ŞENGÖNÜL

Lec. Dr. Fa<mark>tma B</mark>OZKURT

Department of Algebra and Number Theory

Assoc. Prof. Dr. Mehmet Ali ÖZTÜRK

Assoc Prof. Dr. Mustafa UÇKUN

Rsc. Asst. Dr. Özlem TEKIN

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Department of Geometry

Assoc. Prof. Dr. Bilal Eftal ACET

Assoc. Prof. Dr. Şener YANAN

Rsc. Asst. Dr. Gülden MÜLAYİM

Department of Topolgy

Prof. Dr. Selcen YÜKSEL PERKTAŞ

Prof. Dr. Müzeyyen ERTÜRK

Department of Applied Mathematics

Prof. Dr. Manaf MANAFLI

Prof. Dr. Merve AVCI ARDIÇ

Assoc. Prof. Dr. Özlem AK GÜMÜŞ

Asst. Prof. Dr. Esen HANAÇ DURUK

Departmen<mark>t Sec</mark>retary

Filiz ABACI KUTLU

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Mission & Vision

Mission

The Mathematics Department aims to raise individuals who can conduct scientific research at the

international level, who are self-confident, who can follow new developments, who have absorbed basic academic mathematics and mathematical thinking and who will gain resectable places both in the science life of our country and in the society and business life.

Vision

The vision of the Mathematics Department is to become a nationally and internationally recognised and preferred department in the field of mathematics.

2006 Importance of Departments of Mathematics

The rapid progress in science and technology in our age brings new knowledge, skills, and technical and technological tools to the agenda in every field.

Especially great developments in computer technology have led to the emergence of new mathematical disciplines. Therefore, the need for people who know, understand and interpret mathematics shows the importance of mathematics and mathematics departments.



Why the Department of Mathematics?

Mathematics, which is the basis of science, enable us to expand our horizons and look at the events around us from various angles as we descend into the endless depths of its unique world.



Graduates of the Department of Mathematics continue to work in applied mathematics, computer, and education in public and private sectors, some of them in universities and research institutions. Today, in many

different areas such as credit card security including encryption and coding, security in other banking transactions, communication security, environmental problems, imaging of DNA sequences, aircraft modelling, climate and cosmology, molecular dynamics, integrated circuit design, investment planning, stock market risk analysis, Mathematics finds applications and creates increasing employment opportunities for our graduates.

Our graduates have the opportunity to work as teachers in secondary education and private high schools by providing the requirements stipulated by the Ministry of National Education.

In addition, there is a need for mathematicians in areas such as data mining and cryptology, which is an increasingly popular, profession, which requires statistics and database knowledge.

Our students can significantly expand their job opportunities after taking elective courses or graduate studies in these fields.



Highest and Lowest Placement Scores According to

According to the results of ÖSYS placement announced by the Directorate of Assessment, Selection and Placement Center in 2024, the student has been placed in our department with the highest score of 396,47183, while the student has been placed with the lowest 261,74690 scores. All of the 42 student quotas opened in total have been filled. 212 students continue their education in our department.



T. C. ADIYAMAN UNIVERSITY FACULTY OF SCIENCES AND LETTERS DEPARTMENT OF MATHEMATICS

	UNDERGRADUATE COURSE CU	RRICULU	M		
	1. YEAR				
Code	Course Title	ECTS	WCT T+P+L	C/E	Language
First Sem	ester				
FZK101	Physics I	5	3+0+1	С	Т
MAT103	Calculus I	6	4+0+0	С	Т
MAT105	Abstract Mathematics I	6	4+0+0	С	Т
MAT107	Analytic Geometry I	6	3+0+0	С	Т
TD101	Turkish Language I	2	2+0+0	С	Т
YD101	Foreign Language (English) I	3	2+0+0	С	Е
AllT101	Atatürk's Principles and History of The Revolutions I	2	2+0+0	С	Т
	First Semester Total:	30	20+0+1		
Second S	emester				
FZK102	Physics II	5	3+0+1	С	Т
MAT104	Calculus II	5	4+0+0	С	Т
MAT106	Abstract Mathematics II	5	4+0+0	С	Т
MAT108	Analytic Geometry II	4	3+0+0	С	Т
TD102	Turkish Language II	2	2+0+0	С	Т
YD102	Foreign Language (English) II	3	2+0+0	С	Е
AİİT102	Atatürk's Principles and History of The Revolutions II	2	2+0+0	С	Т
ENF102	Technology of Foundation Information	4	2+0+0	С	Т
	Second Semester Total :	30	22+0+1		
	YEAR TOTAL :	60			
	2. YEAR				
Code	Course Title	ECTS	WCT T+P+L	C/E	Language
Third Sen	nester				
MAT201	Linear Algebra I	5	4+0+0	С	Т
MAT203	Probability and Statistics I	5	3+0+0	С	Т
MAT205	Advanced Calculus I	5	4+0+0	С	Т
MAT207	Differential Equations I	5	3+0+0	С	Т
MAT209	Transformations and Geometries	5	3+0+0	С	Т
MAT2xx	Elective	5	3+0+0	Е	Т
	Third Semester Total :	30	20+0+0		
Fourth Se	emester				
MAT202	Linear Algebra II	5	4+0+0	С	Т

Fourth Semester Total:

YEAR TOTAL:

5

5

5

5

5

30

60

3+0+0

4+0+0

3+0+0

3+0+0

3+0+0

20+0+0

С

С

С

С

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Т

Т

Т

Т

MAT204

MAT206

MAT208

MAT210

MAT2xx

Probability and Statistics II

Advanced Calculus II

Number Theory

Elective

Differential Equations I

3. YEAR

Code	Course Title	ECTS	WCT T+P+L	C/E	Language		
Fifth Sem	Fifth Semester						
MAT301	Algebra I	6	4+0+0	С	Т		
MAT303	Topology I	5	3+0+0	С	Т		
MAT305	Theory of Complex Functions I	5	4+0+0	С	Т		
MAT3xx	Elective	5	3+0+0	Е	Т		
BIL3xx	Elective	4	3+0+0	Е	Т		
OSDxxx	Elective	5	3+0+0	Е	Т		
	Fifth Semester Total:	30	20+0+0				
Sixth Sen	nester						
MAT302	Algebra II	6	4+0+0	С	Т		
MAT304	Topology II	5	3+0+0	С	Т		
MAT306	Theory of Complex Functions II	5	4+0+0	С	Т		
MAT3xx	Elective	5	3+0+0	Е	Т		
BIL3xx	Elective	4	3+0+0	Е	Т		
OSDxxx	Elective	5	3+0+0	Е	Т		
	Sixth Semester Total		20+0+0				
	YEAR TOTAL :	60					

4. YEAR							
Code	Course Title	ECTS	WCT T+P+L	C/E	Language		
Seventh S	Seventh Semester						
MAT401	Differential Geometry I	5	3+0+0	С	Т		
MAT403	Functional Analysis I	5	3+0+0	С	Т		
MAT451	Completion Thesis I	5	0+2+0	С	Т		
MAT4xx	Elective	5	3+0+0	Е	Т		
MAT4xx	Elective	5	3+0+0	Е	Т		
OSDxxx	Elective	5	3+0+0	Е	Т		
	Seventh Semester Total:	30	15+2+0				
Eighth Se	mester						
MAT402	Differential Geometry II	5	3+0+0	С	Т		
MAT404	Functional Analysis II	5	3+0+0	С	Т		
MAT452	Completion Thesis II	5	0+2+0	С	Т		
MAT4xx	Elective	5	3+0+0	Е	Т		
MAT4xx	Elective	5	3+0+0	Е	Т		
OSDxxx	Elective	5	3+0+0	Е	Т		
	Eighth Semester Total:	30	15+2+0				
	YEAR TOTAL :	60					

ECTS TOTAL :

240

ELECTIVE COURSES

2. YEAR						
In-Field Elective Courses						
Code	Course Title	ECTS	WCT T+P+L	C/E	Language	
Third Sem	ester					
MAT211	Metric Spaces	5	3+0+0	E	Т	
MAT213	Graphic Design	5	3+0+0	E	Т	
MAT215	Financial Mathematics	5	3+0+0	E	Т	
MAT217	Vocational English	5	3+0+0	Е	Т	
Fourth Semester						
MAT212	Applications of Mathematics	5	3+0+0	E	Т	
MAT214	Fundamentals of Geometry	5	3+0+0	E	Т	
MAT216	Mathematical Modeling and Simulation	5	3+0+0	E	Т	
MAT218	History of Mathematics	5	3+0+0	Е	Т	

ELECTIVE COURSES						
3. YEAR						
Code	Course Title	ECTS	WCT T+P+L	C/E	Language	
Fifth Semester						
	In-Field Elective Course	s				
MAT307	Numerical Analysis I	5	3+0+0	Е	Т	
MAT309	Mathematical Analysis	5	3+0+0	E	Т	
MAT311	Linear Programming	5	3+0+0	Е	Т	
MAT313	Graph Theory	5	3+0+0	_ E	Т	
MAT315	Fuzzy Mathematics	5	3+0+0	Е	Т	
	Out-Field Elective Cours	es				
BIL3xx	Elective (*)	4	3+0+0	Е	Т	
OSDxxx	Elective (**)	5	3+0+0	Е	Т	
Sixth Sem	ester					
	In-Field Elective Course	s				
MAT308	Numerical Analysis II	5	3+0+0	Е	Т	
MAT310	Real Analysis	5	3+0+0	E	Т	
MAT312	Difference Equations	5	3+0+0	Е	Т	
MAT314	Dynamic Geometry Software	5	3+0+0	Е	Т	
MAT316	The Medical Applications of Fuzzy Set Theory	5	3+0+0	Е	Т	
	Out-Field Elective Cours	es				
BIL3xx	Elective (*)	4	3+0+0	Е	Т	
OSDxxx	Elective (**)	5	3+0+0	Е	Т	

"T+P+L \rightarrow 3+0+0" for common elective courses determined by the Common Courses Coordinatorship. ARTS AND SCIENCE FACULTY DEPARTMENT OF MATHEMATICS DESCRIPTION BOOKLET

ELECTIVE COURSES

4. YEAR							
Code	Course Title	ECTS	WCT T+P+L	C/E	Language		
Seventh Semester							
In-Field Elective Courses							
MAT405	Partial Differential Equations	5	3+0+0	Е	Т		
MAT407	Discrete Mathematics	5	3+0+0	Е	Т		
MAT409	Scientific Text Preparing	5	3+0+0	Е	Т		
MAT411	Fourier Analysis	5	3+0+0	Е	Т		
MAT413	Convexity and Optimization	5	3+0+0	Е	Т		
MAT415	Module Theory	5	3+0+0	Е	Т		
MAT417	Computer Assisted Statistics	5	3+0+0	Е	Т		
Out-Field Elective Courses							
OSDxxx	Elective (**)	5	3+0+0	Е	Т		
Eighth Se	mester						
	In-Field Elective Course	s					
MAT406	Cryptology	5	3+0+0	Е	Т		
MAT408	Computer Aided Mathematics	5	3+0+0	Е	Т		
MAT410	Field Extensions	5	3+0+0	Е	Т		
MAT412	Combinatorics	5	3+0+0	Е	Т		
MAT414	Measure Theory	5	3+0+0	Е	Т		
MAT416	Finite Difference Methods	5	3+0+0	E	Т		
MAT418	Fractal Geometry	5	3+0+0	Е	Т		
Out-Field Elective Courses							
OSDxxx	Elective (**)	5	3+0+0	Е	Т		

[&]quot;T+P+L \rightarrow 3+0+0" for common elective courses determined by the Common Courses Coordinatorship.

This undergraduate course curriculum will come into effect in the 2025-2026 academic year.

WCT: Weekly Course Time

T+P+L: Theoretical + Practical + Laboratory **ECTS**: European Credit Transfer System

C/E : Compulsory/Elective

ARTS AND SCIENCE FACULTY DEPARTMENT OF MATHEMATICS DESCRIPTION BOOKLET

^(*) Among the **BIL** coded elective courses determined by the Adıyaman University Computer Department Head Office for the fall and spring semesters, the course(s) determined by the Mathematics Department Head Office before the fall and spring semesters of the relevant academic year and finalized by the Mathematics Department Board Decision can be selected by third-year students of our department under the supervision of the relevant academic advisor. **Web Address**: https://obs.adiyaman.edu.tr/oibs/bolognarindex.aspx

^(**) From the pool of **OSD** coded common elective courses determined by the Adıyaman University Common Courses Coordinatorship for the fall and spring semesters, the courses determined by the Mathematics Department Head before the fall and spring semesters of the relevant academic year and finalized by the Mathematics Department Board Decision can be selected by third-year and fourth-year students of our department under the supervision of the relevant academic advisor. **Web Address**: https://ortakdersler.adiyaman.edu.tr

Mathematics Department Activities

As the Department of Mathematics, we regularly organize Mathematics Days under the hame of Mathematics Society every year. As part of this event, our faculty members, academic staff/members of our department and our students, who are well-known in their fields, make presentations. In this activity, it was aimed to increase the relationship between students and academic personnel in academic terms by giving student and each academic responsibility each to member/staff member of the Mathematics Society. Besides undergraduate students, there are also secondary education students as the audience. Therefore, within the scope of this activity, it was aimed to reach a wider audience and introduce Mathematics Department at the undergraduate and graduate levels. In addition, academic cooperation developed by organizing events such as trips and dinners for guest faculty members. 2006

ARTS AND SCIENCE FACULTY

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