

ADIYAMAN UNIVERSITY ARTS AND SCIENCE FACULTY DEPARTMENT OF MATHEMATICS

DESCRIPTION BOOKLET

2006

2023-2024

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Department of Mathematics

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

Head of Department

Prof. Dr. Manaf MANAFLI

Vice Chairs

Assoc. Prof. Dr. Mustafa UÇKUN

Academic Staff

Department of Analysis and Functions Theory Prof. Dr. Seyit TEMİR Prof. Dr. İbrahim Halil GÜMÜŞ Assoc. Prof. Faik GÜRSOY Assoc. Prof. Mehmet ŞENGÖNÜL Lec. Dr. Fatma BOZKURT

Department of Algebra and Number Theory

Assoc. Prof. Mehmet Ali ÖZTÜRK Assoc. Prof. Mustafa UÇKUN Rsc. Asst. Dr. Özlem TEKİN

Department of Geometry

Assoc. Prof. Bilal Eftal ACET

Assoc. Prof. Şener YANAN

RSC. ASST. Dr. Gülden MÜLAYİM ARTS AND SCIENCE FACULTY DEPARTMENT OF MATHEMATICS INTRODUCTION BOOKLET

Department of Fundamentals of Mathematics and Mathematical Logic

2006

Assoc. Prof. Üyesi Ebubekir İNAN

Department of Topolgy

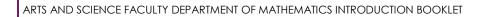
Prof. Dr. Selcen YÜKSEL PERKTAŞ Assoc. Prof. Müzeyyen ERTÜRK

Department of Applied Mathematics

Prof. Dr. Manaf MANAFLI Assoc. Prof. Merve AVCI ARDIÇ Assoc. Prof. Özlem AK GÜMÜŞ Asst. Prof. Esen HANAÇ DURUK

Department Secretary

Fatma İNANIR



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.

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.

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Job Opportunities for Our Graduate Students

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

Central Placement

According to the results of ÖSYS placement announced by the Directorate of Assessment, Selection and Placement Center in 2023, the student has been placed in our department with the highest score of 377,52706, while the student has been placed with the lowest 291,92056 scores. All of the 40 student quotas opened in total have been filled. 213 students continue their education in our department.

Course Catalogue

| 1. Class | | | | | | |
|----------------|---|------|-----------------|-----|-----|--|
| Code | Course Name | ECTS | WCH T+A/C | C/E | La. | |
| First Semester | | | | | | |
| FZK101 | Physics I | 5 | 4+0/4 | С | Т | |
| MTK103 | Analysis I | 6 | 4+2/5 | С | Т | |
| MTK105 | Abstract Mathematics I | 6 | 3+0/3 | С | Т | |
| MTK107 | Analytical Geometry I | 6 | 3+0/3 | С | Т | |
| TD101 | Turkish Language I | 2 | 2+0/2 | С | Т | |
| YD101 | Foreign Language (English) | 3 | 2+0/2 | С | Т | |
| AİİT101 | Ataturk Principles and History of Turkish Revolution I | 2 | 2+0/2 | С | Т | |
| | Fall Semester Total : | 30 | 20+2/ 21 | | | |
| Second S | Second Semester | | | | | |
| FZK102 | Physics II | 5 | 4+0/4 | С | Т | |
| MTK104 | Analysis II | 6 | 4+2/5 | С | Т | |
| MTK106 | Abstract Mathematics II | 4 | 3+0/3 | С | Т | |
| MTK108 | Analytical Geometry II | 4 | 3+0/3 | С | Т | |
| TD102 | Turkish Language II | 2 | 2+0/2 | С | Т | |
| YD102 | Foreign Language (English) II | 3 | 2+0/2 | С | Т | |
| AİİT102 | Ataturk Principles and History of Turkish Revolution II | 2 | 2+0/2 | С | Т | |
| ENF102 | Basic Information Technology | 4 | 2+0/2 | С | Т | |
| | Spring Semester Total : | | 22+2/ 23 | | | |
| | YEAR TOTAL : | 60 | | | | |
| | | | | | | |

| | 2. Class | | | | | | |
|-----------|-------------------------------|------|-----------------|-----|-----|--|--|
| Code | Course Name | ECTS | WCH T+A/C | C/E | La. | | |
| Third Sem | Third Semester | | | | | | |
| MTK201 | Linear Algebra I | 6 | 4+0/4 | С | Т | | |
| MTK203 | Probability and Statistics I | 6 | 3+0/3 | С | Т | | |
| MTK205 | Advanced Analysis I | 6 | 4+0/4 | С | Т | | |
| MTK207 | Coding I | 6 | 2+2/3 | С | Т | | |
| MTK209 | Numerical Analysis I | 6 | 3+0/3 | С | Т | | |
| | Fall Semester Total: | 30 | 16+2/ 17 | | | | |
| Fourth Se | Fourth Semester | | | | | | |
| MTK202 | Linear Algebra II | 6 | 4+0/4 | С | Т | | |
| MTK204 | Probability and Statistics II | 6 | 3+0/3 | С | Т | | |
| MTK206 | Advanced Analysis II | 6 | 4+0/4 | С | Т | | |
| MTK208 | Coding II | 6 | 2+2/3 | С | Т | | |
| MTK210 | Numerical Analysis II | 6 | 3+0/3 | С | Т | | |
| | Spring Semester Total: | | 16+2/ 17 | | | | |
| | YEAR TOTAL : | | | | | | |
| | | | | | | | |
| | | | | | | | |

| 3. Class | | | | | | |
|------------|-----------------------------|-------------|-----------------|-----|-----|--|
| Code | Course Name | ECTS | WCH T+A/C | C/E | La. | |
| Fifth Seme | Fifth Semester | | | | | |
| MTK301 | Algebra I | 5 | 4+0/4 | С | Т | |
| MTK303 | Differential Equations I | 5 | 3+0/3 | С | Т | |
| MTK305 | Complex Functions Theory I | 5 | 4+0/4 | С | Т | |
| MTK307 | Topology I | 5 | 3+0/3 | С | Т | |
| MTK309 | Professional English | 5 | 3+0/3 | С | Т | |
| MTK4xx | Elective | 5 | 3+0/3 | E | Т | |
| | Fall Semester Total | : 30 | 20+0/ 20 | | | |
| Sixth Seme | Sixth Semester | | | | | |
| MTK302 | Algebra II | 5 | 4+0/4 | С | Т | |
| MTK304 | Differential Equations II | 5 | 3+0/3 | С | Т | |
| MTK306 | Complex Functions Theory II | 5 | 4+0/4 | С | Т | |
| MTK308 | Topology II | 5 | 3+0/3 | С | Т | |
| MTK310 | Real Analysis | 5 | 3+0/3 | С | Т | |
| MTK3xx | Elective | 5 | 3+0/3 | E | Т | |
| | Spring Semester Total: | 30 | 20+0/ 20 | | | |
| | YEAR TOTAL | : 60 | | | | |

| | 4. Class | | | | | | |
|------------|--------------------------------|------|-----------------|-----|-----|--|--|
| Code | Course Name | ECTS | WCH T+A/C | C/E | La. | | |
| Seventh S | Seventh Semester | | | | | | |
| MTK401 | Partial Differential Equations | 5 | 3+0/3 | С | Т | | |
| MTK403 | Differential Geometry I | 5 | 3+0/3 | С | Т | | |
| MTK405 | Functional Analysis I | 5 | 3+0/3 | С | Т | | |
| MTK451 | Graduation Study I | 5 | 0+2/1 | С | Т | | |
| MTK4xx | Elective | 5 | 3+0/3 | Е | Т | | |
| MTK4xx | Elective | 5 | 3+0/3 | Е | Т | | |
| | Fall Semester Total: | 30 | 15+2/ 16 | | | | |
| Eighth Sei | nester | | | | | | |
| MTK404 | Differential Geometry II | 5 | 3+0/3 | С | Т | | |
| MTK406 | Functional Analysis II | 5 | 3+0/3 | С | Т | | |
| MTK418 | Number Theory | 5 | 3+0/3 | С | Т | | |
| MTK452 | Graduation Study II | 5 | 0+2/1 | С | Т | | |
| MTK4xx | Elective | 5 | 3+0/3 | Е | Т | | |
| MTK4xx | Elective | 5 | 3+0/3 | Е | Т | | |
| | Spring Semester Total: | 30 | 15+2/ 16 | | | | |
| | YEAR TOTAL: | | | | | | |
| | ECTS TOTAL : | 240 | 240 | | | | |
| | NATIONAL GRADUATION CREDIT: | 150 | | | | | |

| Elective Courses | | | | | | | |
|------------------|---|------|--------------|-----|-----|--|--|
| | | | | | | | |
| 3. Class | | | | | | | |
| Code | Course Name | ECTS | WCH T+A/C | C/E | La. | | |
| Fifth Sem | ester | | | | | | |
| MTK311 | Linear Programming | 5 | 3+0/3 | Е | Т | | |
| MTK313 | Transformations and Geometries | 5 | 3+0/3 | Е | Т | | |
| MTK315 | Mathematics and Analysis | 5 | 3+0/3 | E | Т | | |
| MTK317 | Metric Spaces | 5 | 3+0/3 | E | Т | | |
| MTK319 | Dynamic Geometry Programs | 5 | 3+0/3 | E | Т | | |
| MTK321 | Entrepreneurship | 5 | 3+0/3 | E | Т | | |
| KP301 | Career Planning | 5 | 2+0/2 | E | Т | | |
| | | | | | | | |
| Sixth Sem | ester | | | | | | |
| MTK312 | Difference Equations | 5 | 3+0/3 | E | Т | | |
| MTK314 | Fuzzy Mathematics | 5 | 3+0/3 | E | Т | | |
| MTK316 | Foundations of Geometry | 5 | 3+0/3 | E | Т | | |
| MTK318 | History of Mathematics | 5 | 3+0/3 | E | Т | | |
| MTK320 | The Medical Application of Fuzzy Set Theory | 5 | 3+0/3 | Е | Т | | |
| MTK322 | Quality Management | 5 | 3+0/3 | E | Т | | |
| | | | | | | | |

For elective courses determined by the Rectorate T+A/C \rightarrow 2+0/2

| Elective Courses 4. Class | | | | | | | | | | | | |
|------------------------------|---------------------------------------|---|-------|---|---|--|-----------|-------------|------|--------------|-----|-----|
| | | | | | | | Code | Course Name | ECTS | WCH T+A/C | C/E | La. |
| | | | | | | | Seventh S | emester | | | | |
| MTK407 | Discrete Mathematics | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK409 | Scientific Text Preparation | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK411 | Fourier Analysis | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK413 | Convexity and Optimization | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK415 | Module Theory | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK417 | Computer Aided Statistic | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK419 | Fractal Geometry | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK421 | Graphical Design | 5 | 3+0/3 | E | Т | | | | | | | |
| İDL453 | Sign Language | 5 | 2+0/2 | E | Т | | | | | | | |
| | | | | | | | | | | | | |
| Eighth Se | mester | | | | | | | | | | | |
| MTK402 | Financial Mathematics | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK408 | Computer Aided Mathematics | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK410 | Field Extensions | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK412 | Combinatorial | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK414 | Measurement Theory | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK416 | Finite Difference Methods | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK420 | Mathematical Modelling and Simulation | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK422 | Volunteer Studies | 5 | 3+0/3 | E | Т | | | | | | | |
| MTK424 | The Application of Mathematics | 5 | 3+0/3 | E | Т | | | | | | | |
| AHL454 | Ahi and Professional Ethics | 5 | 2+0/2 | E | Т | | | | | | | |

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For elective courses determined by the Rectorate T+A/C \rightarrow 2+0/2

WCH: Weekly Course Hour

T+U/K: Theoretical +Application/Credit

AKTS: European Credit Transfer System

C/E: Compulsory/Elective

La.: Language (T: Turkish)

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Mathematics Department Activities

the Department of Mathematics, we regularly As organize Mathematics Days under the name 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 responsibility to each student and each academic member/staff member the Mathematics Society. Besides undergraduate of 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 the Mathematics Department at the undergraduate and graduate levels. In addition, academic cooperation is developed by organizing events such as trips and dinners for guest faculty members.

ARTS AND SCIENCE FACULTY

DEPARTMENT OF MATHEMATICS

Address

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