## Course Syllabus

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|---|---|
| **Code - Course Title** | **MAT162 - Mathematics II** |
| **Course Type** | II. SEMESTER |
| **Laboratory + Practice** | 3+0 |
| **ECTS** | **5.0** |
| **Language of Instruction** | İngilizce |
| **Course Type** | Required Courses |

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| **Mode of Delivery** | The mode of delivery of this course is Face to face |
| **Prerequisites** | There is no prerequisite or co-requisite for this course. |
| **Courses Recomended** | There is no recommended optional programme component for this course. |
| **Recommended Resources** | George B. Thomas, Ross L. Finney, Maurice D. Weir(2001)Calculus and Analitic Geometry 1, |
| **Work Placement** | N/A |

## Course Syllabus

| Weeks | Learning Outcomes | Topics | Teaching Methods |
|---|---|---|---|
| **Week - 1** | | Indefinite integral; Fundamental integral formulations and laws, Applications of undefinite integral | |
| **Week - 2** | | Definite integral, properties of definite integral | |
| **Week - 3** | | Fundamental theorem of calculus | |
| **Week - 4** | | Applications of definite integral | |
| **Week - 5** | | Integral Techniques, variable transformation, decomposition method of simply fractions | |
| **Week - 6** | | Area calculation | |
| **Week - 7** | | Net change, Average value | |
| **Week - 8** | | İntegration by parts | |
| **Week - 9** | | Functions of several variables | |
| **Week - 10** | | Partial derivatives | |
| **Week - 11** | | Absolute maximum and absolute minimum values | |
| **Week - 12** | | Matrices, determinants and inverse of a square matrice | |
| **Week - 13** | | Matrices and linear systems | |
| **Week - 14** | | The general review | |

## Learning Outcomes

| # | Learning Outcome |
|---|---|
| 1 | Can compute indefinite integral of a function. |
| 2 | compute defined integral of a function and analyze the area of plane figures. |
| 3 | investigate the existence of solutions of linear equation systems and analyze. |

## Sustainable Development Goals

*No content has been provided.*

## Course Theme

*No content has been provided.*

## AKTS Workload

| Activity | Duration (Hour) | Count | Workload |
|---|---|---|---|
| Teorik Derse Katılım | 0 | 0 | 0 |
| Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı) | 0 | 0 | 0 |
| Ödevler | 0 | 0 | 0 |
| Proje - Rapor - Sunum Hazırlama | 0 | 0 | 0 |
| Ara Sınav Hazırlığı (sınav süresi dahil) | 0 | 0 | 0 |
| Final Sınavı Hazırlığı (sınav süresi dahil) | 0 | 0 | 0 |
| Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.) | 0 | 0 | 0 |
| Staj Uygulaması | 0 | 0 | 0 |
| | | **Calculated ECTS** | **0** |

## Assessment Method and Passing Requirements

*No content has been provided.*