## Course Syllabus

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| **Code - Course Title** | **FBİ506 - Intracellular Signal Transduction Mechanisms** |
| **Course Type** | I. SEMESTER |
| **Laboratory + Practice** | 3+0 |
| **ECTS** | **6.0** |
| **Language of Instruction** | Türkçe |
| **Course Type** | Elective Courses |
| **Course Instructor(s)** | PROF. DR. ZERRİN SELLER |

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| **Mode of Delivery** | Face to face |
| **Prerequisites** | There is no prerequisite or co-requisite for this course. |
| **Courses Recomended** | Cell Biochemistry |
| **Work Placement** | Not Applicable |

## Course Syllabus

| Weeks | Learning Outcomes | Topics | Teaching Methods |
|---|---|---|---|
| **Week - 1** | | Components of Intracellular Signaling Systems and Their Functions | |
| **Week - 2** | | Signal Transduction Mechanisms | |
| **Week - 3** | | Signal Molecules in Transduction | |
| **Week - 4** | | Types of Intracellular Communication | |
| **Week - 5** | | Receptor and Ligand Structures and Their Functions | |
| **Week - 6** | | Membrane localized receptors, Nuclear and cytosolic receptors | |
| **Week - 7** | | Hormones Binding to the Receptor and Their Functions | |
| **Week - 8** | | G Protein Coupled Receptors | |
| **Week - 9** | | mTOR Signaling Pathway | |
| **Week - 10** | | Protein kinase C mechanisms | |
| **Week - 11** | | Wnt/B-Catenin Signaling Pathway | |
| **Week - 12** | | Hedhehog mechanisms | |
| **Week - 13** | | Jak/STAT pathway and Toll-Like receptor mechanisms | |
| **Week - 14** | | Signal Transduction Through Integrin and Destiny | |

## Learning Outcomes

| # | Learning Outcome |
|---|---|
| 1 | Explain the function of signal transduction molecules |
| 2 | Explain the basic principal of signal transduction mechanism |
| 3 | Explain the types of receptors and interaction between receptor and ligand |
| 4 | Explain the interaction of receptors and hormons |
| 5 | Explain the mTOR signal transduction mechanism |
| 6 | Explain the signal transduction mechanism of integrin and cadherins |

## 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.*