|  |  |  |
| --- | --- | --- |
|  | **BURSA ULUDAĞ ÜNİVERSİTESİ****FEN BİLİMLERİ ENSTİTÜSÜ****2023-2024 EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | **FR 1.1.1\_02** |
|  **ANABİLİM/ ANASANAT DALI**  |  BİYOMALZEMELER |
|  **BİLİM/ SANAT DALI / PROGRAMI**  |  Biyomalzemeler  / Yüksek Lisans Programı |
| **DERS AŞAMASI** | **I. YARIYIL / GÜZ** | **II. YARIYIL / BAHAR** |
| **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** | **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** |
| BYM5191 | YÜKSEK LİSANS TEZ DANIŞMANLIĞI I | Z | 0 | 1 | 0 | 0 | 1 | BYM5192 | YÜKSEK LİSANS TEZ DANIŞMANLIĞI II | Z | 0 | 1 | 0 | 0 | 1 |
| BYM5001 | BİYOMALZEMELERE GİRİŞ | Z | 3 | 0 | 0 | 3 | 6 | BYM5172 | SEMİNER  | Z | 0 | 2 | 0 | 0 | 4 |
| BYM5181 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ I | Z | 4 | 0 | 0 | 0 | 5 | BYM5002 | ARAŞTIRMA TEKNİKLERİ VE DENEYSEL TASARIM | Z | 2 | 0 | 0 | 2 | 6 |
| BYM5010(TAN5003) | GENEL İNSAN ANATOMİSİ | Z | 2 | 2 | 0 | 2 | 6 | BYM5182 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ II | Z | 4 | 0 | 0 | 0 | 5 |
|  |  |  |  |  |  |  |  | FEN5000 | ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ | Z | 2 | 0 | 0 | 0 | 2 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BYM | SEÇMELİ DERS | S |  |  |  | 3 | 6 | BYM | SEÇMELİ DERS \* | S |  |  |  | 3 | 6 |
| BYM | SEÇMELİ DERS \* | S |  |  |  | 3 | 6 | BYM | SEÇMELİ DERS \* | S |  |  |  | 3 | 6 |
| **Toplam Kredi/AKTS**  | **12** | **30** | **Toplam Kredi/AKTS** | **11** | **30** |
| **TEZ AŞAMASI** | **III. YARIYIL / GÜZ** | **IV. YARIYIL / BAHAR** |
| BYM5183 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ III | Z | 4 | 0 | 0 | 0 | 5 | BYM5194 | YÜKSEK LİSANS TEZ DANIŞMANLIĞI IV | Z | 0 | 0 | 0 | 0 | 25 |
| BYM5193 | YÜKSEK LİSANS TEZ DANIŞMANLIĞI III | Z | 0 | 0 | 0 | 0 | 25 | BYM5184 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ IV | Z | 4 | 0 | 0 | 0 | 5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Toplam Kredi/AKTS** | **0** | **30** | **Toplam Kredi/AKTS** | **0** | **30** |
| **TOPLAM KREDİ: 23 - TOPLAM AKTS: 120** |
|  |

**Not:** \*: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.

|  |  |
| --- | --- |
|  |  |
|  | **BURSA ULUDAĞ ÜNİVERSİTESİ****FEN BİLİMLERİ ENSTİTÜSÜ****2023-2024 EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)** | **FR 1.1.1\_02** |
|  **ANABİLİM/ ANASANAT DALI**  |  BİYOMALZEMELER |
|  **BİLİM/ SANAT DALI / PROGRAMI**  |  Biyomalzemeler  / Yüksek Lisans Programı |
| **DERS AŞAMASI** | **I. YARIYIL / GÜZ** | **II. YARIYIL / BAHAR** |
| **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** | **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** |
| BYM5007 | BİYOMALZEMELERİN MEKANİK ÖZELLİKLERİ | S | 3 | 0 | 0 | 3 | 6 | BYM5004 | BİYOSENSÖR VE BİYOELEKTRONİKLER İÇİN İLERİ MALZEMELER | S | 3 | 0 | 0 | 3 | 6 |
| KİM5021 | AKILLI POLİMERLER | S | 3 | 0 | 0 | 2 | 6 | BYM5006 | POLİMERİK ve KOMPOZİT DOKU İSKELELERİ ve KAREKTERİZASYONU | S | 3 | 0 | 0 | 3 | 6 |
| TEK5049 | POLİMER KİMYASI | S | 3 | 0 | 0 | 3 | 6 | BYM5008 | POLİMERİK BİYOMALZEMELER  | S | 3 | 0 | 0 | 3 | 6 |
| BİO5213 | SERBEST RADİKAL BİYOLOJİSİ | S | 3 | 0 | 0 | 3 | 6 | BİO5402 | BİYOLOJİDE DOKU VE HÜCRE KÜLTÜRÜ | S | 3 | 0 | 0 | 3 | 6 |
| KİM5023 | GÖZENEKLİ MALZEMELER | S | 3 | 0 | 0 | 3 | 6 | TEK5040 | FONKSİYONEL POLİMERLER | S | 3 | 0 | 0 | 3 | 6 |
| KİM5037 | MOLEKÜLER BASKILANMIŞ POLİMERLER VE NANOTEKNOLOJİK UYGUAMALAR | S | 3 | 0 | 0 | 3 | 6 | KİM5048 | NMR SPEKTROSKOPİSİ İLE YAPI TAYİNİ | S | 3 | 0 | 0 | 3 | 6 |
| MGB5427 | MİKROBİYAL BİYOTEKNOLOJİ | S | 3 | 0 | 0 | 3 | 6 | KİM5032 | SENTETİK ÖZEL POLİMERLER | S | 3 | 0 | 0 | 3 | 6 |
| BİO5517 | MİKROSKOBİK GÖRÜNTÜLEME VE İŞLEME TEKNİKLERİ | S | 3 | 0 | 0 | 3 | 6 | KİM5036 | NANOTEKNOLOJİYE GİRİŞ | S | 3 | 0 | 0 | 3 | 6 |
| BİO5401 | HÜCRE MOLEKÜLER BİYOLOJİSİ | S | 3 | 0 | 0 | 4 | 6 | KİM5026 | BİYOMOLEKÜLLERİN İLERİ ANALİZ YÖNTEMLERİ | S | 3 | 0 | 0 | 3 | 6 |
|  |  |  |  |  |  |  |  | BİO5208 | KÖK HÜCRE BİYOLOJİSİ | S | 3 | 0 | 0 | 3 | 6 |
|  |  |  |  |  |  |  |  | KİM5048 | NMR SPEKTROSKOPİ İLE YAPI TAYİNİ | S | 3 | 0 | 0 | 3 | 6 |
|  |  |  |  |  |  |  |  | TEK5050 | MALZEME BİLİMİNDE İLERİ KAVRAMLAR | S | 3 | 0 | 0 | 3 | 6 |
|  |

|  |  |  |
| --- | --- | --- |
|  | **BURSA ULUDAĞ UNIVERSITY** **GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES****2023-2024** **ACADEMIC YEAR COURSE PLAN** | **FR 1.1.1\_02** |
|  **DEPARTMENT OF** |  BIOMATERIALS |
|  **DEPARTMENT / PROGRAM** |  Biomaterials / Master's Degree Program |
| **COURSE STAGE** | **I. TERM / FALL** | **II. TERM / SPRING** |
| **Code** | **Course Title** | **Type**  | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type**  | **T** | **U** | **L** | **Credit** | **ECTS** |
| BYM5191 | MA THESIS CONSULTING I | C | 0 | 1 | 0 | 0 | 1 | BYM5192 | MA THESIS CONSULTING II | C | 0 | 1 | 0 | 0 | 1 |
| BYM5181 | ADVANCED TOPICS IN MA THESIS I | C | 4 | 0 | 0 | 0 | 5 | BYM5182 | ADVANCED TOPICS IN MA THESIS II | C | 4 | 0 | 0 | 0 | 5 |
| BYM5001 | INTRODUCTION TO BIOMATERIALS | C | 3 | 0 | 0 | 3 | 6 | BYM5172 | SEMINAR  | C | 0 | 2 | 0 | 0 | 4 |
| BYM5010(TAN5003) | GENERAL HUMAN ANATOMY | C | 2 | 2 | 0 | 2 | 6 | BYM 5002 | RESEARCH TECHNİQUES AND EXPERİMENTAL DESİGN | C | 3 | 0 | 0 | 3 | 6 |
|  |  |  |  |  |  |  |  | FEN5000 | RESEARCH TECHNIQUES and PUBLICATION ETHICS | C | 2 | 0 | 0 | 2 | 2 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | ELECTIVE COURSE | E |  |  |  |  | 6 |  | ELECTIVE COURSE \* | E |  |  |  |  | 6 |
|  | ELECTIVE COURSE \* | E |  |  |  |  | 6 |  | ELECTIVE COURSE \* | E |  |  |  |  | 6 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total Credits/ECTS** | **12** | **30** | **Total Credits/ECTS** | **11** | **30** |
| **STAGE THESIS** | **III. TERM / FALL** | **IV. TERM / SPRING** |
| BYM5183 | ADVANCED TOPICS IN MA THESIS III | C | 4 | 0 | 0 | 0 | 5 | BYM5184 | ADVANCED TOPICS IN MA THESIS IV | C | 4 | 0 | 0 | 0 | 5 |
| BYM5193 | MA THESIS CONSULTING III | C | 0 | 1 | 0 | 0 | 25 | BYM5194 | MA THESIS CONSULTING IV | C | 0 | 1 | 0 | 0 | 25 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total Credits/ECTS** | **0** | **30** | **Total Credits/ECTS** | **0** | **30** |
| **TOTAL CREDITS: 23 - TOTAL ECTS: 120** |
| **Not:** \*: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.

|  |  |
| --- | --- |
|  |  |

|  |  |  |
| --- | --- | --- |
|  | **BURSA ULUDAĞ UNIVERSITY** **GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES****2023-2024** **ACADEMIC YEAR COURSE PLAN (ELECTIVE COURSES)**  | **FR 1.1.1\_02** |
|  **DEPARTMENT OF** |  BIOMATERIALS |
|  **DEPARTMENT / PROGRAM** |  Biomaterials / Master's Degree Program |
| **COURSE STAGE** | **I. TERM / FALL** | **II. TERM / SPRING** |
| **Code** | **Course Title** | **Type**  | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type**  | **T** | **U** | **L** | **Credit** | **ECTS** |
| BYM5007 | MECHANIC PROPERTIES OF BIOMATERIALS | S | 3 | 0 | 0 | 0 | 6 | BYM5008 | POLYMERIC BIOMATERIALS | S | 3 | 0 | 0 | 0 | 6 |
| CHEM5021 | SMART POLYMERS | S | 3 | 0 | 0 | 2 | 6 | BYM5006 | POLYMERIC AND COMPOSİTE SCOFOLDS AND THEIR CHARACTERIZATION | S | 3 | 0 | 0 | 0 | 6 |
| TEK5049 | POLYMER CHEMISTRY | S | 3 | 0 | 0 | 3 | 6 | TEK5040 | FUNCTIONAL POLYMERS | S | 3 | 0 | 0 | 3 | 6 |
| BYM5003 | SURFACE CHARACTERİZATİON OF BİOMATERİAS | S | 3 | 0 | 0 | 3 | 6 | BİO5402 | ANIMAL CELL CULTURE | S | 3 | 0 | 0 | 3 | 6 |
| BİO5401 | MOLECULAR BIOLOGY OF THE CELL | S | 3 | 0 | 0 | 4 | 6 | BİO5208 | STEM CELL BIOLOGY | S | 3 | 0 | 0 | 3 | 6 |
| BİO5213 | FREE RADİCALS IN BIOLGY | S | 3 | 0 | 0 | 3 | 6 | CHEM5048  | STRUCTURE DETERMINATION BY NMR SPECTROSCOPY  | S | 3 | 0 | 0 | 3 | 6 |
| BİO5517 | MICROSCOPIC IMAGING AND PROCESSING TECHNIQUES | S | 3 | 0 | 0 | 3 | 6 | CHEM5032 | SYNTHETIC SPECIALTY POLYMERS | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5037 | MOLECULAR IMPRONTED POLYMERS AND NANOBIOTECH. APPLICATIONS | S | 3 | 0 | 0 | 3 | 6 | CHEM5036 | INTRODUCTION TO NANOTECHNOLOGY | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5043 | ORGANIC ELECTRONIC MATERIALS | S | 3 | 0 | 0 | 3 | 6 | TEK5050 | ADVANCED CONCEPTS IN MATERIALS | S | 3 | 0 | 0 | 3 | 6 |
| MBG5427 | MICROBIAL BIOTECHNOLOGY | S | 3 | 0 | 0 | 3 | 6 | CHEM5026 | ADVANCED ANALYSIS TECHNIQUES OF BIOMOLECULES | S | 3 | 0 | 0 | 3 | 6 |
| CHEM5023 | POROUS MATERIALS | S | 3 | 0 | 0 | 3 | 6 | BYM5004 | ADVANCED MATERİALS FOR BIOSENSORS AND BIOELECTRONİCS | S | 3 | 0 | 0 | 3 | 6 |
|  |
|  | **BURSA ULUDAĞ ÜNİVERSİTESİ****FEN BİLİMLERİ** **ENSTİTÜSÜ****2023-2024** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI**  | **FR 1.1.1\_02** |
| **ANABİLİM/ ANASANAT DALI** | BİYOMALZEMELER |
| **BİLİM/ SANAT DALI / PROGRAMI** | Biyomalzemeler / Doktora Programı |
| **DERS AŞAMASI** | **I. YARIYIL / GÜZ** | **II. YARIYIL / BAHAR** |
| **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** | **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** |
| BYM6191 |  TEZ DANIŞMANLIĞI I  | Z | 0 | 1 | 0 | 0 | 1 | BYM6192 | TEZ DANIŞMANLIĞI II  | Z | 0 | 1 | 0 | 0 | 1 |
| BYM6181 | DOKTORA UZMANLIK ALAN DERSİ I | Z | 4 | 0 | 0 | 0 | 5 | BYM6182 | DOKTORA UZMANLIK ALAN DERSİ II | Z | 4 | 0 | 0 | 0 | 5 |
|  |  |  |  |  |  |  |  | BYM6172 | SEMİNER  | Z | 0 | 2 | 0 | 0 | 4 |
|  |  |  |  |  |  |  |  | FEN6002 | TEKNOLOJİ TRANSFERİ, AR-GE VE İNOVASYON | Z | 2 | 0 | 0 | 2 | 2 |
|  | SEÇMELİ DERS | S |  |  |  |  | 6 |  | SEÇMELİ DERS | S |  |  |  |  | 6 |
|  | SEÇMELİ DERS | S |  |  |  |  | 6 |  | SEÇMELİ DERS | S |  |  |  |  | 6 |
|  | SEÇMELİ DERS | S |  |  |  |  | 6 |  | SEÇMELİ DERS \* | S |  |  |  |  | 6 |
|  | SEÇMELİ DERS \* | S |  |  |  |  | 6 |  |  |  |  |  |  |  |  |
| **Toplam Kredi/AKTS** | **12** | **30** | **Toplam Kredi/AKTS** | **11** | **30** |
| **TEZ AŞAMASI** | **III. YARIYIL / GÜZ** | **IV. YARIYIL / BAHAR** |
| YET6177 | DOKTORA YETERLİLİK SINAVI | Z | 0 | 0 | 0 | 0 | 10 | BYM6184 | DOKTORA UZMANLIK ALAN DERSİ IV | Z | 4 | 0 | 0 | 0 | 5 |
| BYM6183 | DOKTORA UZMANLIK ALAN DERSİ III | Z | 4 | 0 | 0 | 0 | 5 | BYM6194 | TEZ DANIŞMANLIĞI IV | Z | 0 | 1 | 0 | 0 | 25 |
| BYM6193 | TEZ DANIŞMANLIĞI III | Z | 0 | 1 | 0 | 0 | 15 |  |  |  |  |  |  |  |  |
| **Toplam Kredi/AKTS** | **0** | **30** | **Toplam Kredi/AKTS** | **0** | **30** |
| **V. YARIYIL / GÜZ** | **VI. YARIYIL / BAHAR** |
| BYM6185 | DOKTORA UZMANLIK ALAN DERSİ V  | Z | 4 | 0 | 0 | 0 | 5 | BYM6186 | DOKTORA UZMANLIK ALAN DERSİ VI | Z | 4 | 0 | 0 | 0 | 5 |
| BYM6195 | TEZ DANIŞMANLIĞI V | Z | 0 | 1 | 0 | 0 | 25 | BYM6196 |  TEZ DANIŞMANLIĞI VI | Z | 0 | 1 | 0 | 0 | 25 |
| **Toplam Kredi/AKTS** | **0** | **30** | **Toplam Kredi/AKTS** | **0** | **30** |
| **VII. YARIYIL / GÜZ** | **VIII. YARIYIL / BAHAR** |
| BYM6187 | DOKTORA UZMANLIK ALAN DERSİ VIII  | Z | 4 | 0 | 0 | 0 | 5 | BYM6188 | DOKTORA UZMANLIK ALAN DERSİ VIII | Z | 4 | 0 | 0 | 0 | 5 |
| BYM6197 | TEZ DANIŞMANLIĞI VIII | Z | 0 | 1 | 0 | 0 | 25 | BYM6198 | TEZ DANIŞMANLIĞI VIII | Z | 0 | 1 | 0 | 0 | 25 |
| **Toplam Kredi/AKTS** | **0** | **30** | **Toplam Kredi/AKTS** | **0** | **30** |
| **TOPLAM KREDİ: 23 - TOPLAM AKTS: 240** |
|  |

 |
| **Not:** \*: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.  |  |
|  | **BURSA ULUDAĞ ÜNİVERSİTESİ****FEN BİLİMLERİ** **ENSTİTÜSÜ****2023-2024** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)** | **FR 1.1.1\_02** |
| **ANABİLİM/ ANASANAT DALI** | BİYOMALZEMELER |
| **BİLİM/ SANAT DALI / PROGRAMI** | Biyomalzemeler / Doktora Programı |
| **DERS AŞAMASI** | **I. YARIYIL / GÜZ** | **II. YARIYIL / BAHAR** |
| **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** | **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** |
| BYM6001 | BİYOTEKNOLOJİYE GİRİŞ | S | 3 | 0 | 0 | 3 | 6 | BYM6004 | BİYOMEDİKAL CİHAZLARIN BİYOLOJİK DEĞERLENDİRİLMESİ | S | 3 | 0 | 0 | 3 | 6 |
| BYM6003 | İLAÇ TAŞIMA SİSTEMLERİ | S | 3 | 0 | 0 | 3 | 6 | TEK6012 | BİO - TIP UYGULAMALARI İÇİN TEKSTİL MALZEMELERİ  | S | 3 | 0 | 0 | 3 | 6 |
| BYM6005 | HİDROJELLERİN BİYOMEDİKAL UYGULAMALARI | S | 3 | 0 | 0 | 3 | 6 | KİM6020 | ELEKTROKİMYASAL SENSÖRLER | S | 3 | 0 | 0 | 3 | 6 |
| BYM6007 | DOKU MÜHENDİSLİĞİ VE REJENERATİF TIPTA KULLANILAN POLİMERLER | S | 3 | 0 | 0 | 3 | 6 | TEK6018 | POLİMER NANOKOMPOZİTLER | S | 3 | 0 | 0 | 3 | 6 |
| KİM6039 | ARAYÜZEY BİLİMİ I | S | 3 | 0 | 0 | 3 | 6 | KİM6028 | MOLEKÜLER TANIMA VE BİYOMOLEKÜL KOMPLEKSLERİ | S | 3 | 0 | 0 | 3 | 6 |
| KİM6041 | İLERİ POLİMER BİLİMİ VE TEKNOLOJİSİ I | S | 3 | 0 | 0 | 3 | 6 | KİM6038 | İLERİ POLİMER BİLİMİ VE TEKNOLOJİSİ II | S | 3 | 0 | 0 | 3 | 6 |
| THE6003 | MOLEKÜLER HÜCRE VE DOKU BİYOLOJİSİ | S | 3 | 0 | 0 | 3 | 6 | THE6012 | ELEKTRON MİKROSKOPİ TEKNİKLERİ | S | 3 | 0 | 0 | 3 | 6 |
| TFZ6001 | MOLEKÜLER VE HÜCRESEL FİZYOLOJİ | S | 3 | 0 | 0 | 3 | 9 |  |  |  |  |  |  |  |  |
| TTB6001 | PROTEİNLERİN YAPISI VE FONKSİYONLARI | S | 2 | 2 | 0 | 3 | 9 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |

|  |  |
| --- | --- |
|  |  |

|  |  |  |
| --- | --- | --- |
|  | **BURSA ULUDAĞ UNIVERSITY** **GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES****2023-2024** **ACADEMIC YEAR COURSE PLAN** | **FR 1.1.1\_02** |
|  **DEPARTMENT OF** | BIOMATERIALS |
|  **DEPARTMENT / PROGRAM** | Biomaterials / Doctoral Program |
| **COURSE STAGE** | **I. TERM / FALL** | **II. TERM / SPRING** |
| **Code** | **Course Title** | **Type**  | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type**  | **T** | **U** | **L** | **Credit** | **ECTS** |
| BYM6191 | PHD THESIS CONSULTING I | C | 0 | 1 | 0 | 0 | 1 | BYM6192 | PHD THESIS CONSULTING II | C | 0 | 1 | 0 | 0 | 1 |
| BYM6181 | ADVANCED TOPICS IN PHD THESIS I | C | 4 | 0 | 0 | 0 | 5 | BYM6182 | ADVANCED TOPICS IN PHD THESIS II | C | 4 | 0 | 0 | 0 | 5 |
|  |  |  |  |  |  |  |  | BYM6172 | SEMINAR  | C | 0 | 2 | 0 | 0 | 4 |
|  |  |  |  |  |  |  |  | FEN6002 | TECHONOLOGY TRANSFER, AR-GE AND İNNOVATİON | C | 2 | 0 | 0 | 2 | 2 |
|  | ELECTIVE COURSE | E |  |  |  |  | 6 |  | ELECTIVE COURSE | E |  |  |  |  | 6 |
|  | ELECTIVE COURSE | E |  |  |  |  | 6 |  | ELECTIVE COURSE | E |  |  |  |  | 6 |
|  | ELECTIVE COURSE | E |  |  |  |  | 6 |  | ELECTIVE COURSE \* | E |  |  |  |  | 6 |
|  | ELECTIVE COURSE \* | E |  |  |  |  | 6 |  |  |  |  |  |  |  |  |
| **Total Credits/ECTS** | **12** | **30** | **Total Credits/ECTS** | **11** | **30** |
| **STAGE THESIS** | **III. TERM / FALL** | **IV. TERM / SPRING** |
| BYM6183 | ADVANCED TOPICS IN PHD THESIS III | C | 4 | 0 | 0 | 0 | 10 | BYM6184 | ADVANCED TOPICS IN PHD THESIS IV | C | 4 | 0 | 0 | 0 | 5 |
| BYM6193 | PHD THESIS CONSULTING III | C | 0 | 1 | 0 | 0 | 15 | BYM6194 | PHD THESIS CONSULTING IV | C | 0 | 1 | 0 | 0 | 25 |
| YET6177 | PHD PROFICIENCY EXAMINATION | C | 0 | 0 | 0 | 0 | 5 |  |  |  |  |  |  |  |  |
| **Total Credits/ECTS** | **0** | **30** | **Total Credits/ECTS** | **0** | **30** |
| **V. TERM / FALL** | **VI. TERM / SPRING** |
| BYM6185 | ADVANCED TOPICS IN PHD THESIS V | C | 4 | 0 | 0 | 0 | 5 | BYM6186 | ADVANCED TOPICS IN PHD THESIS VI | C | 4 | 0 | 0 | 0 | 5 |
| BYM6195 | PHD THESIS CONSULTING V | C | 0 | 1 | 0 | 0 | 25 | BYM6196 | PHD THESIS CONSULTING VI | C | 0 | 1 | 0 | 0 | 25 |
| **Total Credits/ECTS** | **0** | **30** | **Total Credits/ECTS** | **0** | **30** |
| **VII. TERM / FALL** | **VIII. TERM / SPRING** |
| BYM6187 | ADVANCED TOPICS IN PHD THESIS VII | C | 4 | 0 | 0 | 0 | 5 | BYM6188 | ADVANCED TOPICS IN PHD THESIS VIIII | C | 4 | 0 | 0 | 0 | 5 |
| BYM6197 | PHD THESIS CONSULTING VIII | C | 0 | 1 | 0 | 0 | 25 | BYM6198 | PHD THESIS CONSULTING VIIII | C | 0 | 1 | 0 | 0 | 25 |
| **Total Credits/ECTS** | **0** | **30** | **Total Credits/ECTS** | **0** | **30** |
| **TOTAL CREDITS: 23 - TOTAL ECTS: 240** |
| **Not:** \*: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir.

|  |  |
| --- | --- |
|  |  |

|  |  |  |
| --- | --- | --- |
|  | **BURSA ULUDAĞ UNIVERSITY** **GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES****2023-2024** **ACADEMIC YEAR COURSE PLAN (ELECTIVE COURSES)** | **FR 1.1.1\_02** |
|  **DEPARTMENT OF** | BIOMATERIALS |
|  **DEPARTMENT / PROGRAM** | Biomaterials / Doctoral Program |
| **COURSE STAGE** | **I. TERM / FALL** | **II. TERM / SPRING** |
| **Code** | **Course Title** | **Type**  | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type**  | **T** | **U** | **L** | **Credit** | **ECTS** |
| BYM6001 | INTRODUCTION TO BIOTECHNOLOGY | S | 3 | 0 | 0 | 3 | 6 | BYM6004 | BIOLOGICAL EVOLIATION OF BIOMEDICAL DEVICES | S | 3 | 0 | 0 | 3 | 6 |
| BYM6003 | DRUG DELIVERY SYSTEMS | S | 3 | 0 | 0 | 3 | 6 | TEK 6018 | POLYMER NANOCOMPOSITES | S | 3 | 0 | 0 | 3 | 6 |
| CHEM6041 | ADVANCED POLYMER SCIENCE AND TECHNOLOGY I  | S | 3 | 0 | 0 | 3 | 6 | TEK6012 | TEXTILE MATERIALS FOR BIOMEDICAL APPLICATIONS  | S | 3 | 0 | 0 | 3 | 6 |
| TFZ6001 | MOLECULAR AND CELLULAR PHYSIOLOGY | S | 3 | 0 | 0 | 3 | 9 | CHEM6020 | ELECTROCHEMİCAL SENSORS | S | 3 | 0 | 0 | 3 | 6 |
| BYM6005 | BIOMEDICAL APPLICATIONS OF HYDROGELS | S | 3 | 0 | 0 | 3 | 6 | CHEM6028 | MOLECULAR RECOGNİTİON AND BIOMOLECULE COMPLEXES | S | 3 | 0 | 0 | 3 | 6 |
| BYM6007 | POLYMERS IN TISSUE ENGINEERING AND REGENARTIVE MEDICINE | S | 3 | 0 | 0 | 3 | 6 | CHEM6038 | ADVANCED POLYMER SCIENCE AND TECHNOLOGY II | S | 3 | 0 | 0 | 3 | 6 |
| BYM6009 | BIOCOMPABILITY AND BIOMATERIAL DESIGN | S | 3 | 0 | 0 | 3 | 6 | THE6012 | ELECTRON MICROCOPY TECHNIQUES | S | 3 | 0 | 0 | 3 | 6 |
| CHEM6039 | INTERFACE SCIENCE I | S | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  |  |  |
| THE6003 | MOLECULAR BIOLOGY OF CELL AND TISSUE | S | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  |  |  |
| TTB6001 | PROTEIN STRUCTURE AND FUNCTION | S | 2 | 2 | 0 | 3 | 9 |  |  |  |  |  |  |  |  |
|  |
|  |

 |