|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2022-2023 EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | | | | | | | | | | | | | **FR 1.1.1\_02** | | | |
| **ANABİLİM/ ANASANAT DALI** | | | | TEKSTİL MÜHENDİSLİĞİ | | | | | | | | | | | | | | | |
| **BİLİM/ SANAT DALI / PROGRAMI** | | | | YÜKSEK LİSANS PROGRAMI | | | | | | | | | | | | | | | |
| **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** |
| TEK5191 | TEZ DANIŞMANLIĞI I | | | Z | 0 | | 1 | 0 | 0 | 1 | TEK5192 | TEZ DANIŞMANLIĞI II | Z | 0 | 1 | 0 | 0 | 1 |
| TEK5181 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ I | | | Z | 4 | | 0 | 0 | 0 | 5 | TEK5182 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ II | Z | 4 | 0 | 0 | 0 | 5 |
| TEK 5001 | UYGULAMALI MATEMATİK | | | Z | 3 | | 0 | 0 | 3 | 6 | TEK5172 | SEMİNER | Z | 0 | 2 | 0 | 0 | 4 |
| TEK 5005 | TEKSTİL ARAŞTIRMALARINDA DENEYSEL TASARIM | | | Z | 3 | | 0 | 0 | 3 | 6 | FEN5000 | TEKSTİL MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ | Z | 2 | 0 | 0 | 2 | 2 |
| TEK5003 | TEKSTİL MATERYALLERİNİN RENKLENDİRME TEORİSİ | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5002 | ORGANİK BOYARMADDELER KİMYASI | S | 3 | 0 | 0 | 3 | 6 |
| TEK5007 | FANTAZİ İPLİK TEKNOLOJİSİ | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5004 | TEKSTİL LİFLERİNİN MEKANİK ÖZELLİKLERİ | S | 3 | 0 | 0 | 3 | 6 |
| TEK5015 | TEKSTİL TERBİYESİNDE EKOLOJİK YAKLAŞIMLAR I | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5006 | İLERİ İPLİK TEKNOLOJİSİ | S | 3 | 0 | 0 | 3 | 6 |
| TEK5019 | PLAZMA TEKNOLOJİSİNİN TEKSTİLDE UYGULAMALARI | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5008 | ELYAF TAKVİYELİ KOMPOZİT MALZEMELER | S | 3 | 0 | 0 | 3 | 6 |
| TEK5021 | İPLİK GEOMETRİSİ | | | S | 3 | | 0 | 0 | 3 | 6 | TEK5012 | TEKSTİL TERBİYE YARDIMCI KİMYASALLARI | S | 3 | 0 | 0 | 3 | 6 |
| TEK5023 | İPLİK BOYAMA TEKNOLOJİSİ | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5016 | TEKSTİL TERBİYESİNDE EKOLOJİK YAKLAŞIMLAR II | S | 3 | 0 | 0 | 3 | 6 |
| TEK5025 | ÖRME KUMAŞ TASARIMI VE ÜRÜN GELİŞTİRME | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5018 | DİJİTAL BASKI TEKNOLOJİLERİ VE TEKSTİL SANAYİNDEKİ UYGULAMALARI | S | 3 | 0 | 0 | 3 | 6 |
| TEK5027 | TEKSTİLDE BİLGİSAYAR KONTROLLÜ SİSTEM TASARIMI | | | S | 3 | | 0 | 0 | 3 | 6 | TEK5024 | TEKSTİL KAPLAMA VE LAMİNASYON TEKNOLOJİLERİ | S | 3 | 0 | 0 | 3 | 6 |
| TEK5031 | GİYSİ KONFORU | | | S | 3 | | 0 | 0 | 3 | 6 | TEK5030 | YENİ EĞİRME SİSTEMLERİ | S | 3 | 0 | 0 | 3 | 6 |
| TEK5035 | TEKSTİL LİFLERİNİN YÜZEY ÖZELLİKLERİ VE MODİFİKASYON YÖNTEMLERİ | | | S | 3 | | 0 | 0 | 3 | 6 | TEK5032 | FONKSİYONEL BİTİM İŞLEMLERİ | S | 3 | 0 | 0 | 3 | 6 |
| TEK5037 | İPLİK TEKNOLOJİSİNDE ARD İŞLEMLER | | | S | 3 | | 0 | 0 | 3 | 6 | TEK5036 | TEKNİK TEKSTİL İPLİKLERİ | S | 3 | 0 | 0 | 3 | 6 |
| TEK5039 | MÜHENDİSLİK UYGULAMALARINDA MODERN KARAKTERİZASYON YÖNTEMLERİ | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5040 | FONKSİYONEL POLİMERLER | S | 3 | 0 | 0 | 3 | 6 |
| TEK 5041 | DOKUMA KUMAŞ GEOMETRİSİ VE MEKANİĞİ | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5042 | İLERİ DOKUMA KUMAŞ TASARIM TEKNİKLERİ VE YAPILARI | S | 3 | 0 | 0 | 3 | 6 |
| TEK 5043 | FİZİKSEL POLİMER BİLİMİ | | | S | 3 | | 0 | 0 | 3 | 6 | TEK 5044 | TEKSTİL TERBİYESİNDE REAKSİYON MEKANİZMALARI | S | 3 | 0 | 0 | 3 | 6 |
|  | **I. YARIYIL / GÜZ** | | | | | | | | | | | **II. YARIYIL / BAHAR** | | | | | | | |
| **Kodu** | **Dersin Adı** | | | **Türü** | **T** | **U** | | **L** | **Kredi** | **AKTS** | **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** |
| TEK 5045 | KONFEKSİYONDA KALİTE | | | S | 3 | 0 | | 0 | 3 | 6 | TEK 5046 | KORUYUCU GİYSİ SİSTEMLERİ | S | 3 | 0 | 0 | 3 | 6 |
| TEK 5047 | ÖRME TEKNİK TEKSTİLLER | | | S | 3 | 0 | | 0 | 3 | 6 | TEK 5048 | TEKSTİLDE ARAŞTIRMA METODOLOJİSİ | S | 3 | 0 | 0 | 3 | 6 |
| TEK 5049 | POLİMER KİMYASI | | | S | 3 | 0 | | 0 | 3 | 6 | TEK 5050 | MALZEME BİLİMİNDE İLERİ KAVRAMLAR | S | 3 | 0 | 0 | 3 | 6 |
| TEK5051 | İPLİK İŞLETMELERİNDE ÜRETİMPLANLAMASI VE MALİYET | | | S | 3 | 0 | | 0 | 3 | 6 | TEK5052 | ÇÖZGÜLÜ ÖRME KUMAŞ TASARIMI VE ÜRÜN GELİŞTİRME | S | 3 | 0 | 0 | 3 | 6 |
|  |  | | |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
| **Toplam Kredi/AKTS** | | | | | | | | | **12** | **30** | **Toplam Kredi/AKTS** | | | | | | **11** | **30** |
| **TEZ AŞAMASI** | **III. YARIYIL / GÜZ** | | | | | | | | | | | **IV. YARIYIL / BAHAR** | | | | | | | |
| TEK5183 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ III | | | Z | 4 | 0 | | 0 | 0 | 5 | TEK5184 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ IV | Z | 4 | 0 | 0 | 0 | 5 |
| TEK5193 | TEZ DANIŞMANLIĞI III | | | Z | 0 | 1 | | 0 | 0 | 25 | TEK5194 | TEZ DANIŞMANLIĞI IV | Z | 0 | 1 | 0 | 0 | 25 |
|  |  | | |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |
| **Toplam Kredi/AKTS** | | | | | | | | | **0** | **30** | **Toplam Kredi/AKTS** | | | | | | **0** | **30** |
| **TOPLAM KREDİ: 23 - TOPLAM AKTS: 120** | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | |

|  |  |
| --- | --- |
| Prof.Dr. Dilek KUT  Anabilim/Anasanat Dalı Başkanı  (Unvan, Ad Soyad Tarih, İmza) | Prof.Dr. Hüseyin Aksel EREN  Enstitü Müdürü  (Unvan, Ad Soyad, Tarih, İmza) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **BURSA ULUDAĞ UNIVERSITY**  **GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES**  **2022-2023 ACADEMIC YEAR COURSE PLAN** | | | | | | | | | | | | | **FR 1.1.1\_02** | | | |
| **DEPARTMENT OF** | | | | TEXTILE ENGINEERING | | | | | | | | | | | | | | | |
| **DEPARTMENT / PROGRAM** | | | | 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** |
| TEK5191 | MA THESIS CONSULTING I | | | C | 0 | 1 | 0 | 0 | 1 | TEK5192 | MA THESIS CONSULTING II | C | 0 | 1 | | 0 | 0 | 1 |
| TEK5181 | ADVANCED TOPICS IN MA THESIS I | | | C | 4 | 0 | 0 | 0 | 5 | TEK5182 | ADVANCED TOPICS IN MA THESIS II | C | 4 | 0 | | 0 | 0 | 5 |
| TEK5001 | APPLIED MATHEMATICS | | | C | 3 | 0 | 0 | 3 | 6 | TEK5172 | SEMINAR | C | 0 | 2 | | 0 | 0 | 4 |
| TEK5005 | EXPEIMENTAL DESIGN IN TEXTILE RESEARCH | | | C | 3 | 0 | 0 | 3 | 6 | FEN5000 | RESEARCH TECHNIQUES and PUBLICATION ETHICS in TEXTILE ENGINEERING | C | 2 | 0 | | 0 | 2 | 2 |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |
| TEK5003 | THEORY OF COLOURATİON OF TEXTİLE MATERIALS | | | E | 3 | 0 | 0 | 3 | 6 | TEK5016 | BEST AVAILABLE TECHNOLOGY İN TEXTILE FINISHING II | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5007 | FANCY YARN TECHNOLOGY | | | E | 3 | 0 | 0 | 3 | 6 | TEK5018 | DIGITAL PRINTING TECHNOLOGIES AND TEXTILE APPLICATION | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5015 | BEST AVAILABLE TECHNOLOGY İN TEXTILE FINISHING I | | | E | 3 | 0 | 0 | 3 | 6 | TEK5002 | COLOUR CHEMISTRY | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5019 | PLASMA APPLICATION TO TEXTILE MATERIALS | | | E | 3 | 0 | 0 | 3 | 6 | TEK5024 | TEXTILE COATING AND LAMINATING TECHNOLOGIES | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5021 | YARN GEOMETRY | | | E | 3 | 0 | 0 | 3 | 6 | TEK5012 | TEXTILE FINISHING AUXILLIARIES | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5023 | YARN DYEING TECHNOLOGY | | | E | 3 | 0 | 0 | 3 | 6 | TEK5030 | NEW SPINNING SYSTEMS | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5025 | KNITTED FABRIC DESIGN AND PRODUCT DEVELOPMENT | | | E | 3 | 0 | 0 | 3 | 6 | TEK5032 | FUNCTIONAL FINISHING | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5027 | COMPUTER CONTROL SYSTEM DESİGN IN TEXTİLES | | | E | 3 | 0 | 0 | 3 | 6 | TEK5006 | ADVANCED YARN TECHNOLOGY | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5031 | CLOTHING COMFORT | | | E | 3 | 0 | 0 | 3 | 6 | TEK5008 | FIBER REINFORCED COMPOSITE MATERIALS | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5035 | SURFACE PROPERTIES AND MODIFICATION OF TEXTILE FIBERS | | | E | 3 | 0 | 0 | 3 | 6 | TEK5040 | FUNCTIONAL POLYMERS | E | 3 | 0 | | 0 | 3 | 6 |
| TEK 5193 | CHEMISTRY OF POLYMERS | | | E | 3 | 0 | 0 | 3 | 6 | TEK 5194 | RESEARCH METHODOLOGY IN TEXTILES | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5037 | POST OPERATIONS IN YARN TECHNOLOGY | | | E | 3 | 0 | 0 | 3 | 6 | TEK 5036 | TECHNICAL TEXTILE YARNS | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5039 | MODERN CHARACTERIZATION METHODS IN ENGINEERING APPLICATION | | | E | 3 | 0 | 0 | 3 | 6 | TEK 5042 | ADVANCED WOVEN FABRIC DESIGN TECHNIQUES AND STRUCTURES | E | 3 | 0 | | 0 | 3 | 6 |
| TEK 5041 | WOVEN FABRIC GEOMETRY AND MECHANICS | | | E | 3 | 0 | 0 | 3 | 6 | TEK 5044 | REACTION MECHANISMS ON TEXTILE TREATMENT | E | 3 | 0 | | 0 | 3 | 6 |
| TEK 5043 | PHYSICAL POLYMER SCIENCE | | | E | 3 | 0 | 0 | 3 | 6 | TEK 5046 | PROTECTIVE CLOTHING SYSTEMS | E | 3 | 0 | | 0 | 3 | 6 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **I. TERM / FALL** | | | | | | | | | | | | | | | | | | | **II. TERM / SPRING** | | | | | | | | | | | | | | | |
| **Code** | | **Course Title** | | | | **Type** | | | **T** | | **U** | | **L** | **Credit** | | **ECTS** | | | **Code** | | **Course Title** | | **Type** | | **T** | | | **U** | | **L** | | **Credit** | | **ECTS** |
| TEK 5045 | | CLOTHING QUALITY | | | | E | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5048 | | TEXTILE RESEARCH METHODOLOGY | | E | | 3 | | | 0 | | 0 | | 3 | | 6 |
| TEK 5047 | | KNİTTED TECHNİCAL TEXTİLES | | | | E | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5050 | | ADVANCED CONCEPTS İN MATERİALS SCİENCE | | E | | 3 | | | 0 | | 0 | | 3 | | 6 |
| TEK 5049 | | POLYMER CHEMISTRY | | | | E | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK5004 | | MECHANICAL PROPERTIES OF TEXTILE FIBRES | | E | | 3 | | | 0 | | 0 | | 3 | | 6 |
| TEK5051 | | PRODUCTİON PLANNİNG AND COST İN COTTON SPINNING | | | | E | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK5052 | | WARP KNİTTED FABRİC DESİNG AND PRODUCT DEVELEPMENT | | E | | 3 | | | 0 | | 0 | | 3 | | 6 |
|  | |  | | | |  | | |  | |  | |  |  | |  | | |  | |  | |  | |  | | |  | |  | |  | |  |
| **Total Credits/ECTS** | | | | | | | | | | | | | | **12** | | **30** | | | **Total Credits/ECTS** | | | | | | | | | | | | | **11** | | **30** |
| **THESIS STAGE** | | | **III. TERM / FALL** | | | | | | | | | | | | | | | | | | | **IV. TERM / SPRING** | | | | | | | | | | | | | | | |
| TEK5183 | | ADVANCED TOPICS IN MA THESIS III | | | | C | | | 4 | | 0 | | 0 | 0 | | 5 | | | TEK5184 | | ADVANCED TOPICS IN MA THESIS IV | | C | | 4 | | | 0 | | 0 | | 0 | | 5 |
| TEK5193 | | MA THESIS CONSULTING III | | | | C | | | 0 | | 1 | | 0 | 0 | | 25 | | | TEK5194 | | MA THESIS CONSULTING IV | | C | | 0 | | | 1 | | 0 | | 0 | | 25 |
|  | |  | | | |  | | |  | |  | |  |  | |  | | |  | |  | |  | |  | | |  | |  | |  | |  |
| **Total Credits/ECTS** | | | | | | | | | | | | | | **0** | | **30** | | | **Total Credits/ECTS** | | | | | | | | | | | | | **0** | | **30** |
| **TOTAL CREDITS: - TOTAL ECTS:** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prof.Dr. Dilek KUT  Head of Department  (Title, Name and Surname, Date, Signature) | | | | | | | | | | | | | | | | | | | | Prof.Dr. Hüseyin Aksel EREN  Director of Institute  (Title, Name and Surname, Date, Signature) | | | | | | | | | | | | | | | |
|  | | | | | | **BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ** **ENSTİTÜSÜ**  **2022-2023** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | | | | | | | | | | | | | | | | | | | | | | | **FR 1.1.1\_02** | | | | | | | | | |
| **ANABİLİM/ ANASANAT DALI** | | | | | | | **TEKSTİL MÜHENDİSLİĞİ** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **BİLİM/ SANAT DALI / PROGRAMI** | | | | | | | **DOKTORA PROGRAMI** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **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** | | |
| TEK6191 | | TEZ DANIŞMANLIĞI I | | | | Z | | 0 | 1 | | 0 | | 0 | | | 1 | | TEK6192 | | | TEZ DANIŞMANLIĞI II | | Z | | 0 | | | 1 | | 0 | | 0 | | 1 | | |
| TEK6181 | | DOKTORA UZMANLIK ALAN DERSİ I | | | | Z | | 4 | 0 | | 0 | | 0 | | | 5 | | TEK6182 | | | DOKTORA UZMANLIK ALAN DERSİ II | | Z | | 4 | | | 0 | | 0 | | 0 | | 5 | | |
|  | |  | | | |  | |  |  | |  | |  | | |  | | TEK6172 | | | SEMİNER | | Z | | 0 | | | 2 | | 0 | | 0 | | 4 | | |
| TEK 6001 | | LİF OLUŞUM TEORİSİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | FEN6000 | | | ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ | | Z | | 2 | | | 0 | | 0 | | 2 | | 2 | | |
| TEK 6009 | | JEO-TEKSTİL MALZEMELERİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | |  | | |  | |  | |  | | |  | |  | |  | |  | | |
| TEK 6011 | | ENDÜSTRİYEL YIKAMA TEKNOLOJİSİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | TEK 6006 | | | DOKUMA MAKİNELERİ MEKANİĞİ | |  | |  | | |  | |  | |  | |  | | |
| TEK 6013 | | TEKSTİL TERBİYESİNDE YENİ TEKNOLOJİLER | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | TEK 6008 | | | İPLİKLERİN MEKANİK ÖZELLİKLERİ | | S | | 3 | | | 0 | | 0 | | 3 | | 6 | | |
| TEK 6015 | | MÜHENDİSLİK UYGULAMALARINDA İLERİ KARAKTERİZASYON YÖNTEMLERİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | TEK 6010 | | | RENK FİZİĞİ | | S | | 3 | | | 0 | | 0 | | 3 | | 6 | | |
| TEK 6017 | | TEKNİK TEKSTİLLERDE DOKUNMAMIŞ YÜZEY UYGULAMALARI | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | TEK 6012 | | | BİO-TIP UYGULAMALARI İÇİN TEKSTİL MALZEMELERİ | | S | | 3 | | | 0 | | 0 | | 3 | | 6 | | |
| TEK 6019 | | POLİMER REOLOJİSİ VE PROSESLERİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | TEK 6016 | | | BİLİMSEL YAZIM | | S | | 3 | | | 0 | | 0 | | 3 | | 6 | | |
| TEK 6021 | | KUMAŞ TUTUMUNUN OBJEKTİF OLARAK DEĞERLENDİRİLMESİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | TEK 6018 | | | POLİMER NANOKOMPOZİTLER | | S | | 3 | | | 0 | | 0 | | 3 | | 6 | | |
| TEK 6023 | | TEKSTİLDE SÜRDÜRÜLEBİLİRLİK | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | TEK 6020 | | | TEKSTİL TERBİYESİNDE İLERİ REAKSİYON MEKANİZMALARI | | S | | 3 | | | 0 | | 0 | | 3 | | 6 | | |
| TEK 6025 | | DOKUMA KUMAŞ TRİBOLOJİSİ | | | | S | | 3 | 3 | | 3 | | 3 | | | 6 | | TEK 6024 | | | NANO MALZEME UYGULAMALARI VE KARAKTERİZASYONU | | S | | 3 | | | 0 | | 0 | | 3 | | 6 | | |
| TEK6027 | | YÜK.FREKANSLI ISITMA TEKNOLOJİSİ ve TEKSTİL SANAYİNDEKİ UYGULAMALARI | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | | TEK 6026 | | | TEKSTİLDE SÜRDÜRÜLEBİLİR TASARIM | | S | | 3 | | | 0 | | 0 | | 3 | | 6 | | |
| TEK 6029 | | İNCE FİLM KAPLAMA TEKNOLOJİLERİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | |  | | |  | |  | |  | | |  | |  | |  | |  | | |
| TEK 6031 | | MALZEMELERİN YÜZEY VE ARA YÜZLERİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | |  | | |  | |  | |  | | |  | |  | |  | |  | | |
| TEK 6033 | | RENK SINIFLANDIRMA SİSTEMLERİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | |  | | |  | |  | |  | | |  | |  | |  | |  | | |
| TEK6035 | | GÜNCEL TEKNİK KUMAŞ UYGULAMALARI | | | | S | | 3 | 0 | | 0 | | 3 | | | 6 | |  | | |  | |  | |  | | |  | |  | |  | |  | | |
| TEK 6037 | | OPEN END (AÇIK UÇ) ROTOR İPLİKÇİLİĞİ | | | | S | | 3 | 0 | | 0 | | 3 | | | 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 | TEK6184 | DOKTORA UZMANLIK ALAN DERSİ IV | Z | 4 | 0 | 0 | | 0 | | 5 |
| TEK6183 | DOKTORA UZMANLIK ALAN DERSİ III | Z | | 4 | 0 | 0 | 0 | 5 | TEK6194 | TEZ DANIŞMANLIĞI IV | Z | 0 | 1 | 0 | | 0 | | 25 |
| TEK6193 | 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** | | | | | | | | | |
| TEK6185 | DOKTORA UZMANLIK ALAN DERSİ V | Z | | 4 | 0 | 0 | 0 | 5 | TEK6186 | DOKTORA UZMANLIK ALAN DERSİ VI | Z | 4 | 0 | 0 | | 0 | | 5 |
| TEK6195 | TEZ DANIŞMANLIĞI V | Z | | 0 | 1 | 0 | 0 | 25 | TEK6196 | 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** | | | | | | | | | |
| TEK6187 | DOKTORA UZMANLIK ALAN DERSİ VII | Z | 4 | | 0 | 0 | 0 | 5 | TEK6188 | DOKTORA UZMANLIK ALAN DERSİ VIII | Z | 4 | 0 | 0 | 0 | | 5 | |
| TEK6197 | TEZ DANIŞMANLIĞI VII | Z | 0 | | 1 | 0 | 0 | 25 | TEK6198 | 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** | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | |

|  |  |
| --- | --- |
| Prof.Dr. Dilek KUT  Anabilim/Anasanat Dalı Başkanı  (Unvan, Ad Soyad Tarih, İmza) | Prof.Dr. Hüseyin Aksel EREN  Enstitü Müdürü  (Unvan, Ad Soyad Tarih, İmza) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **BURSA ULUDAĞ UNIVERSITY**  **GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES**  **2022- 2023** **ACADEMIC YEAR COURSE PLAN** | | | | | | | | | | | | | | **FR 1.1.1\_02** | | |
| **DEPARTMENT OF** | | | | **TEXTILE ENGINEERING** | | | | | | | | | | | | | | | |
| **DEPARTMENT / PROGRAM** | | | | **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** |
| TEK6191 | PHD THESIS CONSULTING I | | | C | 0 | 1 | 0 | 0 | 1 | TEK6192 | PHD THESIS CONSULTING II | C | 0 | 1 | 0 | | 0 | 1 |
| TEK6181 | ADVANCED TOPICS IN PHD THESIS I | | | C | 4 | 0 | 0 | 0 | 5 | TEK6182 | ADVANCED TOPICS IN PHD THESIS II | C | 4 | 0 | 0 | | 0 | 5 |
|  |  | | |  |  |  |  |  |  | TEK6172 | SEMINAR | C | 0 | 2 | 0 | | 0 | 4 |
|  |  | | |  |  |  |  |  |  | FEN6000 | RESEARCH TECHNIQUES and PUBLICATION ETHICS | C | 2 | 0 | 0 | | 2 | 2 |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |
| TEK6001 | THEORY OF FIBRE FORMATION | | | E | 3 | 0 | 0 | 3 | 6 | TEK6006 | WEAVING MACHINERY MECHANICS | E | 3 | 0 | 0 | | 3 | 6 |
| TEK6009 | JEO-TEXTILE MATERIALS | | | E | 3 | 0 | 0 | 3 | 6 | TEK6008 | MECHANICAL PROPERTIES OF YARNS | E | 3 | 0 | 0 | | 3 | 6 |
| TEK6011 | INDUSTRİAL LAUNDRY TECHNOLOGY | | | E | 3 | 0 | 0 | 3 | 6 | TEK6010 | COLOUR PHYSICS | E | 3 | 0 | 0 | | 3 | 6 |
| TEK6013 | NEW TECHNOLOGIES IN TEXTILE FINISHING | | | E | 3 | 0 | 0 | 3 | 6 | TEK6012 | TEXTILE MATERIALS FOR BIOMEDICAL APPLICATION | E | 3 | 0 | 0 | | 3 | 6 |
| TEK6015 | ADVANCED CHARACTERİZATION METHODS IN ENGINEERING APPLICATION | | | E | 3 | 0 | 0 | 3 | 6 | TEK6016 | SCIENTIFIC WRITING | E | 3 | 0 | 0 | | 3 | 6 |
| TEK6017 | APPLICATIONS OF NONWOVENS IN TECHNICAL TEXTILES | | | E | 3 | 0 | 0 | 3 | 6 | TEK 6018 | POLYMER NANOCOMPOSITES | E | 3 | 0 | 0 | | 3 | 6 |
| TEK6019 | POLYMER RHEOLOGY AND PROCESSES | | | E | 3 | 0 | 0 | 3 | 6 | TEK 6020 | ADVANCED REACTION MECHANİSMS ON TEXTILE TREATMENT | E | 3 | 0 | 0 | | 3 | 6 |
| TEK6021 | OBJECTIVE EVALUATION OF FABRIC HAND | | | E | 3 | 0 | 0 | 3 | 6 | TEK6024 | NANO MATERIALS APPLICATIONS AND CHARACTERIZATION | E | 3 | 0 | 0 | | 3 | 6 |
| TEK6023 | SUSTAINABILITY IN TEXTILES | | | E | 3 | 0 | 0 | 3 | 6 | TEK 6026 | SUSTAINABLE DESIGN IN TEXTILES | S | 3 | 0 | 0 | | 3 | 6 |
| TEK6025 | WOVEN FABRIC TRIBOLOGY | | | E | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  | |  |  |
| TEK6027 | HIGH FREQUENCY HEATING TECH.AND TEXTILE APPLICATIONS | | | E | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  | |  |  |
| TEK6029 | THİN FİLM COATİNG TECHNOLOGİES | | | E | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  | |  |  |
| TEK6031 | SURFACE AND INTERFACE OF MATERIALS | | | E | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  | |  |  |
| TEK 6033 | COLOUR ORDER SYSTEMS | | | S | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  | |  |  |
| TEK6035 | CURRENT TECHNICAL FABRIC APPLICATIONS | | | S | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  | |  |  |
| TEK 6037 | OPEN END ROTOR SPINNING | | | S | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  | |  |  |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |
| **Total Credits/ECTS** | | | | | | | | **11** | **30** | **Total Credits/ECTS** | | | | | | | **11** | **30** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **THESIS STAGE** | **III. TERM / FALL** | | | | | | | | | | | | | | | | | | | | **IV. TERM / SPRING** | | | | | | | | | | | | | | | | | | | | |
| TEK6183 | | | ADVANCED TOPICS IN PHD THESIS III | | | | C | | | 4 | 0 | | 0 | | 0 | | | 5 | | TEK6184 | | | ADVANCED TOPICS IN PHD THESIS IV | | C | | 4 | | 0 | | 0 | | 0 | | | 5 | | | | |
| TEK6193 | | | PHD THESIS CONSULTING III | | | | C | | | 0 | 1 | | 0 | | 0 | | | 15 | | TEK6194 | | | PHD THESIS CONSULTING IV | | C | | 0 | | 1 | | 0 | | 0 | | | 25 | | | | |
| YET6177 | | | PHD PROFICIENCY EXAMINATION | | | | C | | | 0 | 0 | | 0 | | 0 | | | 10 | |  | | |  | |  | |  | |  | |  | |  | | |  | | | | |
| **Total Credits/ECTS** | | | | | | | | | | | | | | | **0** | | | **30** | | **Total Credits/ECTS** | | | | | | | | | | | | | **0** | | | **30** | | | | |
| **V. TERM / FALL** | | | | | | | | | | | | | | | | | | | | **VI. TERM / SPRING** | | | | | | | | | | | | | | | | | | | | |
| TEK6185 | | | ADVANCED TOPICS IN PHD THESIS V | | | | C | | | 4 | 0 | | 0 | | 0 | | | 5 | | TEK6186 | | | ADVANCED TOPICS IN PHD THESIS VI | | C | | 4 | | 0 | | 0 | | 0 | | | 5 | | | | |
| TEK6195 | | | PHD THESIS CONSULTING V | | | | C | | | 0 | 1 | | 0 | | 0 | | | 25 | | TEK6196 | | | 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** | | | | | | | | | | | | | | | | | | | | |
| TEK6187 | | | ADVANCED TOPICS IN PHD THESIS VII | | | | C | | 4 | | 0 | | 0 | | 0 | | | 5 | | TEK6188 | | | ADVANCED TOPICS IN PHD THESIS VIIII | | C | | 4 | | 0 | | 0 | | 0 | | | 5 | | | | |
| TEK6197 | | | PHD THESIS CONSULTING VII | | | | C | | 0 | | 1 | | 0 | | 0 | | | 25 | | TEK6198 | | | 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** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prof.Dr. Dilek KUT  Head of Department  (Title, Name and Surname, Date, Signature) | | | | | | | | | | | | | | | | | | | Prof.Dr. Hüseyin Aksel EREN  Director of Institute  (Title, Name and Surname, Date, Signature) | | | | | | | | | | | | | | | | | |
|  | | | | | | **BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2022-2023 EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | | | | | | | | | | | | | | | | | | | | | | | | | **FR 1.1.1\_02** | | | | | | | | | |
| **ANABİLİM/ ANASANAT DALI** | | | | | | | **TEKSTİL MÜHENDİSLİĞİ** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **BİLİM/ SANAT DALI / PROGRAMI** | | | | | | | **BÜTÜNLEŞİK DOKTORA PROGRAMI** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **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** | |
| TEK6191 | | | DOKTORA TEZ DANIŞMANLIĞI I | | | | Z | | | | 0 | | 1 | | 0 | 0 | | 1 | | | TEK6192 | | DOKTORA TEZ DANIŞMANLIĞI II | | Z | | 0 | | 1 | | 0 | | | 0 | | | 1 | |
| TEK6181 | | | DOKTORA UZMANLIK ALAN DERSİ I | | | | Z | | | | 4 | | 0 | | 0 | 0 | | 5 | | | TEK6182 | | DOKTORA UZMANLIK ALAN DERSİ II | | Z | | 4 | | 0 | | 0 | | | 0 | | | 5 | |
| TEK5001 | | | UYGULAMALI MATEMATİK | | | | Z | | | | 3 | | 0 | | 0 | 3 | | 6 | | |  | |  | |  | |  | |  | |  | | |  | | |  | |
| TEK5005 | | | TEKSTİL ARAŞTIRMALARINDA DENEYSEL TASARIM | | | | Z | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5002 | | ORGANİK BOYARMADDELER KİMYASI | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5003 | | | TEKSTİL MATERYALLERİNİN RENKLENDİRME TEORİSİ | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5004 | | TEKSTİL LİFLERİNİN MEKANİK ÖZELLİKLERİ | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5007 | | | FANTAZİ İPLİK TEKNOLOJİSİ | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5006 | | İLERİ İPLİK TEKNOLOJİSİ | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5015 | | | TEKSTİL TERBİYESİNDE EKOLOJİK YAKLAŞIMLAR I | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5008 | | ELYAF TAKVİYELİ KOMPOZİT MALZEMELER | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5019 | | | PLAZMA TEKNOLOJİSİNİN TEKSTİLDE UYGULAMALARI | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK5012 | | TEKSTİL TERBİYE YARDIMCI KİMYASALLARI | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5021 | | | İPLİK GEOMETRİSİ | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5016 | | TEKSTİL TERBİYESİNDE EKOLOJİK YAKLAŞIMLAR II | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5023 | | | İPLİK BOYAMA TEKNOLOJİSİ | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5018 | | DİJİTAL BASKI TEKNOLOJİLERİ VE TEKSTİL SANAYİNDEKİ UYGULAMALARI | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5025 | | | ÖRME KUMAŞ TASARIMI VE ÜRÜN GELİŞTİRME | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK5024 | | TEKSTİL KAPLAMA VE LAMİNASYON TEKNOLOJİLERİ | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5027 | | | TEKSTİLDE BİLGİSAYAR KONTROLLÜ SİSTEM TASARIMI | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK5030 | | YENİ EĞİRME SİSTEMLERİ | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5031 | | | GİYSİ KONFORU | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK5032 | | FONKSİYONEL BİTİM İŞLEMLERİ | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5035 | | | TEKSTİL LİFLERİNİN YÜZEY ÖZELLİKLERİ VE MODİFİKASYON YÖNTEMLERİ | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK5036 | | TEKNİK TEKSTİL İPLİKLERİ | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5037 | | | İPLİK TEKNOLOJİSİNDE ARD İŞLEMLER | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5040 | | FONKSİYONEL POLİMERLER | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5039 | | | MÜHENDİSLİK UYGULAMALARINDA MODERN KARAKTERİZASYON YÖNTEMLERİ | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5042 | | İLERİ DOKUMA KUMAŞ TASARIM TEKNİKLERİ VE YAPILARI | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5041 | | | DOKUMA KUMAŞ GEOMETRİSİ VE MEKANİĞİ | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | | TEK 5044 | | TEKSTİL TERBİYESİNDE REAKSİYON MEKANİZMALARI | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |
| TEK5043 | | | FİZİKSEL POLİMER BİLİMİ | | | | S | | | | 3 | | 0 | | 0 | 3 | | 6 | | |  | |  | | S | | 3 | | 0 | | 0 | | | 3 | | | 6 | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **I. YARIYIL / GÜZ** | | | | | | | | | | | | | | | **II. YARIYIL / BAHAR** | | | | | | | | | | | | | | | | | | | | | | |
| **Kodu** | | **Dersin Adı** | **Türü** | **T** | **U** | | | **L** | **Kredi** | | | **AKTS** | | | **Kodu** | | | | | **Dersin Adı** | | | **Türü** | | | **T** | | | **U** | | | **L** | | | **Kredi** | | **AKTS** |
| TEK 5045 | | KONFEKSİYONDA KALİTE | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 5046 | | | | | KORUYUCU GİYSİ SİSTEMLERİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK 5047 | | ÖRME TEKNİK TEKSTİLLER | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 5048 | | | | | TEKSTİLDE ARAŞTIRMA METODOLOJİSİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK 5049 | | POLİMER KİMYASI | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 5050 | | | | | MALZEME BİLİMİNDE İLERİ KAVRAMLAR | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK5051 | | İPLİK İŞLETMELERİNDE ÜRETİMPLANLAMASI VE MALİYET | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK5052 | | | | | ÇÖZGÜLÜ ÖRME KUMAŞ TASARIMI VE ÜRÜN GELİŞTİRME | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| **Toplam Kredi/AKTS** | | | | | | | | | **12** | | | **30** | | | **Toplam Kredi/AKTS** | | | | | | | | | | | | | | | | | | | | **11** | | **30** |
| **TEZ AŞAMASI** | | **III. YARIYIL / GÜZ** | | | | | | | | | | | | | | | **IV. YARIYIL / BAHAR** | | | | | | | | | | | | | | | | | | | | | | |
| TEK6193 | | DOKTORA TEZ DANIŞMANLIĞI III | Z | 0 | 1 | | | 0 | 0 | | | 1 | | | TEK6174 | | | | | SEMİNER | | | Z | | | 0 | | | 2 | | | 0 | | | 0 | | 4 |
| TEK6183 | | DOKTORA UZMANLIK ALAN DERSİ III | Z | 4 | 0 | | | 0 | 0 | | | 5 | | | FEN6000 | | | | | ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ | | | Z | | | 2 | | | 0 | | | 0 | | | 2 | | 2 |
| TEK6009 | | JEO-TEKSTİL MALZEMELERİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK6194 | | | | | DOKTORA TEZ DANIŞMANLIĞI IV | | | Z | | | 0 | | | 1 | | | 0 | | | 0 | | 1 |
| TEK6011 | | ENDÜSTRİYEL YIKAMA TEKNOLOJİSİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK6184 | | | | | DOKTORA UZMANLIK ALAN DERSİ IV | | | Z | | | 4 | | | 0 | | | 0 | | | 0 | | 5 |
| TEK6013 | | TEKSTİL TERBİYESİNDE YENİ TEKNOLOJİLER | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6006 | | | | | DOKUMA MAKİNELERİ MEKANİĞİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK6015 | | MÜHENDİSLİK UYGULAMALARINDA İLERİ KARAKTERİZASYON YÖNTEMLERİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6008 | | | | | İPLİKLERİN MEKANİK ÖZELLİKLERİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK6017 | | TEKNİK TEKSTİLLERDE DOKUNMAMIŞ YÜZEY UYGULAMALARI | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6010 | | | | | RENK FİZİĞİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK6019 | | POLİMER REOLOJİSİ VE PROSESLERİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6012 | | | | | BİO-TIP UYGULAMALARI İÇİN TEKSTİL MALZEMELERİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK6021 | | KUMAŞ TUTUMUNUN OBJEKTİF OLARAK DEĞERLENDİRİLMESİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6016 | | | | | BİLİMSEL YAZIM | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK 6023 | | TEKSTİLDE SÜRDÜRÜLEBİLİRLİK | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6018 | | | | | POLİMER NANOKOMPOZİTLER | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK6001 | | LİF OLUŞUM TEORİSİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6020 | | | | | TEKSTİL TERBİYESİNDE İLERİ REAKSİYON MEKANİZMALARI | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK 6025 | | DOKUMA KUMAŞ TRİBOLOJİSİ | S | 3 | 3 | | | 3 | 3 | | | 6 | | | TEK 6024 | | | | | NANO MALZEME UYGULAMALARI VE KARAKTERİZASYONU | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK6027 | | YÜK.FREKANSLI ISITMA TEKNOLOJİSİ VE TEKSTİL SANAYİNDEKİ UYGULAMALARI | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6006 | | | | | DOKUMA MAKİNELERİ MEKANİĞİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK6029 | | İNCE FİLM KAPLAMALI TEKNOLOJİLERİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6008 | | | | | İPLİKLERİN MEKANİK ÖZELLİKLERİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK 6031 | | MALZEMELERİN YÜZEY VE ARA YÜZLERİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6010 | | | | | RENK FİZİĞİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK 6033 | | RENK SINIFLANDIRMA SİSTEMLERİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6012 | | | | | BİO-TIP UYGULAMALARI İÇİN TEKSTİL MALZEMELERİ | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK6035 | | GÜNCEL TEKNİK KUMAŞ UYGULAMALARI | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6016 | | | | | BİLİMSEL YAZIM | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| TEK 6037 | | OPEN END (AÇIK UÇ) ROTOR İPLİKÇİLİĞİ | S | 3 | 0 | | | 0 | 3 | | | 6 | | | TEK 6018 | | | | | POLİMER NANOKOMPOZİTLER | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
|  | |  |  |  |  | | |  |  | | |  | | | TEK 6020 | | | | | TEKSTİL TERBİYESİNDE İLERİ REAKSİYON MEKANİZMALARI | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
|  | |  |  |  |  | | |  |  | | |  | | | TEK 6024 | | | | | NANO MALZEME UYGULAMALARI VE KARAKTERİZASYONU | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
|  | |  |  |  |  | | |  |  | | |  | | | TEK 6026 | | | | | TEKSTİLDE SÜRDÜRÜLEBİLİR TASARIM | | | S | | | 3 | | | 0 | | | 0 | | | 3 | | 6 |
| **Toplam Kredi/AKTS** | | | | | | | | | **0** | | | **30** | | | **Toplam Kredi/AKTS** | | | | | | | | | | | | | | | | | | | | **0** | | **30** |
| **TEZ AŞAMASI** | **V. YARIYIL / GÜZ** | | | | | | | | | | | | | | | | | **VI. YARIYIL / BAHAR** | | | | | | | | | | | | | | | | | | | | | | |
| YET6177 | | DOKTORA YETERLİLİK SINAVI | | Z | 0 | | 0 | 0 | | | 0 | | | 10 | | | TEK6186 | | DOKTORA UZMANLIK ALAN DERSİ VI | | | Z | | | 4 | | | 0 | | | 0 | | | | 0 | | | 5 | |
| TEK6185 | | DOKTORA UZMANLIK ALAN DERSİ V | | Z | 4 | | 0 | 0 | | | 0 | | | 5 | | | TEK6196 | | DOKTORA TEZ DANIŞMANLIĞI VI | | | Z | | | 0 | | | 1 | | | 0 | | | | 0 | | | 25 | |
| TEK6195 | | DOKTORA TEZ DANIŞMANLIĞI V | | Z | 0 | | 1 | 0 | | | 0 | | | 15 | | |  | |  | | |  | | |  | | |  | | |  | | | |  | | |  | |
| **Toplam Kredi** | | | | | | | | | | | **0** | | | **30** | | | **Toplam Kredi** | | | | | | | | | | | | | | | | | | **0** | | | **30** | |
| **VII. YARIYIL / GÜZ** | | | | | | | | | | | | | | | | | **VIII. YARIYIL / BAHAR** | | | | | | | | | | | | | | | | | | | | | | |
| TEK6187 | | DOKTORA UZMANLIK ALAN DERSİ VII | | Z | 4 | | 0 | 0 | | | | 0 | | | 5 | | | TEK6188 | | DOKTORA UZMANLIK ALAN DERSİ VIII | | | Z | | | 4 | | | 0 | | | 0 | | | 0 | | | 5 | | |
| TEK6197 | | DOKTORA TEZ DANIŞMANLIĞI VII | | Z | 0 | | 1 | 0 | | | | 0 | | | 25 | | | TEK6198 | | DOKTORA TEZ DANIŞMANLIĞI VIII | | | Z | | | 0 | | | 1 | | | 0 | | | 0 | | | 25 | | |
| **Toplam Kredi** | | | | | | | | | | | **0** | | | **30** | | | **Toplam Kredi** | | | | | | | | | | | | | | | | | **0** | | | **30** | | |
| **IX. YARIYIL / GÜZ** | | | | | | | | | | | | | | | | | **X. YARIYIL / BAHAR** | | | | | | | | | | | | | | | | | | | | | | |
| TEK6189 | | DOKTORA UZMANLIK ALAN DERSİ IX | | Z | 4 | | 0 | 0 | | | | 0 | | | 5 | | | TEK6190 | | DOKTORA UZMANLIK ALAN DERSİ X | | | Z | | | 4 | | | 0 | | | 0 | | | 0 | | | 5 | | |
| TEK6199 | | DOKTORA TEZ DANIŞMANLIĞI IX | | Z | 0 | | 1 | 0 | | | | 0 | | | 25 | | | TEK6200 | | DOKTORA TEZ DANIŞMANLIĞI X | | | Z | | | 0 | | | 1 | | | 0 | | | 0 | | | 25 | | |
| **Toplam Kredi** | | | | | | | | | | | **0** | | | **30** | | | **Toplam Kredi** | | | | | | | | | | | | | | | | | **0** | | | **30** | | |
| **TOPLAM KREDİ: 47 - TOPLAM AKTS: 300** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

|  |  |
| --- | --- |
| Prof.Dr. Dilek KUT  Anabilim/Anasanat Dalı Başkanı  (Unvan, Ad Soyad Tarih, İmza) | Prof.Dr. Hüseyin Aksel EREN  Enstitü Müdürü  (Unvan, Ad Soyad Tarih, İmza) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | **BURSA ULUDAĞ UNIVERSITY**  **GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES**  **2022-2023** **ACADEMIC YEAR COURSE PLAN** | | | | | | | | | | | | | | **FR 1.1.1\_02** | | | | |
| **DEPARTMENT OF** | | | | **TEXTILE ENGINEERING** | | | | | | | | | | | | | | | | | |
| **DEPARTMENT / PROGRAM** | | | | **INTEGRATED 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** | |
| TEK6191 | PHD THESIS CONSULTING I | | | C | 0 | | 1 | 0 | 0 | 1 | TEK6192 | PHD THESIS CONSULTING II | C | 0 | 1 | | 0 | 0 | 1 | |
| TEK6181 | SPECIAL TOPICS IN PHD THESIS I | | | C | 4 | | 0 | 0 | 0 | 5 | TEK6182 | SPECIAL TOPICS IN PHD THESIS II | C | 4 | 0 | | 0 | 0 | 5 | |
| TEK5001 | APPLIED MATHEMATICS | | | C | 3 | | 0 | 0 | 3 | 6 | TEK5004 | MECHANICAL PROPERTIES OF TEXTILE FIBRES | C | 3 | 0 | | 0 | 3 | 6 | |
| TEK5005 | EXPEIMENTAL DESIGN IN TEXTILE RESEARCH | | | C | 3 | | 0 | 0 | 3 | 6 | FEN5000 | RESEARCH TECHNIQUES and PUBLICATION ETHICS in TEXTILE ENGINEERING | C | 2 | 0 | | 0 | 2 | 2 | |
|  |  | | |  |  | |  |  |  |  |  |  |  |  |  | |  |  |  | |
| TEK5003 | THEORY OF COLOURATİON OF TEXTİLE MATERIALS | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5016 | BEST AVAILABLE TECHNOLOGY IN TEXTILE FINISHING II | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5007 | FANCY YARN TECHNOLOGY | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5018 | DIGITAL PRINTING TECHNOLOGIES AND TEXTILE APPLICATION | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5015 | BEST AVAILABLE TECHNOLOGY İN TEXTILE FINISHING I | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5002 | COLOUR CHEMISTRY | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5019 | PLASMA APPLICATION TO TEXTILE MATERIALS | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5024 | TEXTILE COATING AND LAMINATING TECHNOLOGIES | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5021 | YARN GEOMETRY | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5012 | TEXTILE FINISHING AUXILLIARIES | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5023 | YARN DYEING TECHNOLOGY | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5030 | NEW SPINNING SYSTEMS | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5025 | KNITTED FABRIC DESIGN AND PRODUCT DEVELOPMENT | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5032 | FUNCTIONAL FINISHING | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5027 | COMPUTER CONTROL SYSTEM DESİGN IN TEXTİLES | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5006 | ADVANCED YARN TECHNOLOGY | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5031 | CLOTHING COMFORT | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5008 | FIBER REINFORCED COMPOSITE MATERIALS | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5035 | SURFACE PROPERTIES AND MODIFICATION OF TEXTILE FIBERS | | | E | 3 | | 0 | 0 | 3 | 6 | TEK5040 | FUNCTIONAL POLYMERS | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK 5193 | CHEMISTRY OF POLYMERS | | | E | 3 | | 0 | 0 | 3 | 6 | TEK 5194 | RESEARCH METHODOLOGY IN TEXTILES | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5037 | POST OPERATIONS IN YARN TECHNOLOGY | | | E | 3 | | 0 | 0 | 3 | 6 | TEK 5036 | TECHNICAL TEXTILE YARNS | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK5039 | MODERN CHARACTERIZATION METHODS IN ENGINEERING APPLICATION | | | E | 3 | | 0 | 0 | 3 | 6 | TEK 5042 | ADVANCED WOVEN FABRIC DESIGN TECHNIQUES AND STRUCTURES | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK 5041 | WOVEN FABRIC GEOMETRY AND MECHANICS | | | E | 3 | | 0 | 0 | 3 | 6 | TEK 5044 | REACTION MECHANISMS ON TEXTILE TREATMENT | E | 3 | 0 | | 0 | 3 | 6 | |
| TEK 5043 | PHYSICAL POLYMER SCIENCE | | | E | 3 | | 0 | 0 | 3 | 6 | TEK 5046 | PROTECTIVE CLOTHING SYSTEMS | E | 3 | 0 | | 0 | 3 | 6 | |
|  | **I. TERM / FALL** | | | | | | | | | | | **II. TERM / SPRING** | | | | | | | | |
| **Code** | **Course Title** | | | **Type** | **T** | **U** | | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type** | **T** | **U** | | **L** | **Credit** | **ECTS** |
| TEK 5045 | CLOTHING QUALITY | | | E | 3 | 0 | | 0 | 3 | 6 | TEK5048 | TEXTILE RESEARCH METHODOLOGY | E | 3 | 0 | | 0 | 3 | 6 |
| TEK 5047 | KNİTTED TECHNICAL TEXTILES | | | E | 3 | 0 | | 0 | 3 | 6 | TEK5050 | ADVANCED CONCEPTS IN MATERIALS SCIENCE | E | 3 | 0 | | 0 | 3 | 6 |
| TEK 5049 | POLYMER CHEMISTRY | | | E | 3 | 0 | | 0 | 3 | 6 | TEK5004 | MECHANICAL PROPERTIES OF TEXTILE FIBRES | E | 3 | 0 | | 0 | 3 | 6 |
| TEK5051 | PRODUCTION PLANNING AND COST IN COTTON SPINNING | | | E | 3 | 0 | | 0 | 3 | 6 | TEK5052 | WARP KNITTED FABRIC DESING AND PRODUCT DEVELOPMENT | E | 3 | 0 | | 0 | 3 | 6 |
| **Total Credits/ECTS** | | | | | | | | | **12** | **30** | **Total Credits/ECTS** | | | | | | | **11** | **30** |
| **THESIS STAGE** | **III. TERM / FALL** | | | | | | | | | | | **IV. TERM / SPRING** | | | | | | | | |
| TEK6183 | SPECIAL TOPICS IN PHD THESIS III | | | C | 4 | 0 | | 0 | 0 | 5 | TEK6174 | SEMINAR | C | 0 | 2 | | 0 | 0 | 4 |
| TEK6193 | PHD THESIS CONSULTING III | | | C | 0 | 1 | | 0 | 0 | 1 | TEK6194 | PHD THESIS CONSULTING IV | C | 0 | 1 | | 0 | 0 | 1 |
| TEK6009 | JEO-TEXTILE MATERIALS | | | E | 3 | 0 | | 0 | 3 | 6 | FEN6000 | RESEARCH TECHNIQUES and PUBLICATION ETHICS | C | 2 | 0 | | 0 | 2 | 2 |
| TEK6011 | INDUSTRIAL LAUNDRY TECHNOLOGY | | | E | 3 | 0 | | 0 | 3 | 6 | TEK6184 | SPECIAL TOPICS IN PHD THESIS IV | C | 4 | 0 | | 0 | 0 | 5 |
| TEK6013 | NEW TECHNOLOGIES IN TEXTILE FINISHING | | | E | 3 | 0 | | 0 | 3 | 6 | TEK6006 | WEAVING MACHINERY MECHANICS | E | 3 | 0 | | 0 | 3 | 6 |
| TEK6015 | ADVANCED CHARACTERIZATION METHODS IN ENGINEERING APPLICATION | | | E | 3 | 0 | | 0 | 3 | 6 | TEK6008 | MECHANICAL PROPERTIES OF YARNS | E | 3 | 0 | | 0 | 3 | 6 |
| TEK6017 | APPLICATIONS OF NONWOVENS IN TECHNICAL TEXTILES | | | E | 3 | 0 | | 0 | 3 | 6 | TEK6010 | COLOUR PHYSICS | E | 3 | 0 | | 0 | 3 | 6 |
| TEK6019 | POLYMER RHEOLOGY AND PROCESSES | | | E | 3 | 0 | | 0 | 3 | 6 | TEK6012 | TEXTILE MATERIALS FOR BIOMEDICAL APPLICATION | E | 3 | 0 | | 0 | 3 | 6 |
| TEK6021 | OBJECTIVE EVALUATION OF FABRIC HAND | | | E | 3 | 0 | | 0 | 3 | 6 | TEK6016 | SCIENTIFIC WRITING | E | 3 | 0 | | 0 | 3 | 6 |
| TEK6023 | SUSTAINABILITY IN TEXTILES | | | E | 3 | 0 | | 0 | 3 | 6 | TEK 6018 | POLYMER NANOCOMPOSITES | E | 3 | 0 | | 0 | 3 | 6 |
| TEK6001 | THEORY OF FIBRE FORMATION | | | E | 3 | 0 | | 0 | 3 | 6 | TEK 6020 | ADVANCED REACTION MECHANISMS ON TEXTILE TREATMENT | E | 3 | 0 | | 0 | 3 | 6 |
| TEK6025 | WOVEN FABRIC TRIBOLOGY | | | E | 3 | 0 | | 0 | 3 | 6 | TEK6024 | NANO MATERIALS APPLICATIONS AND CHARACTERIZATION | E | 3 | 0 | | 0 | 3 | 6 |
| TEK6027 | HIGH FREQUENCY HEATING TECH.AND TEXTILE APPLICATIONS | | | E | 3 | 0 | | 0 | 3 | 6 | TEK 6026 | SUSTAINABLE DESIGN IN TEXTILES | S | 3 | 0 | | 0 | 3 | 6 |
| TEK6029 | THIN FILM COATING TECHNOLOGIES | | | E | 3 | 0 | | 0 | 3 | 6 |  |  |  |  |  | |  |  |  |
| TEK6031 | SURFACE AND INTERFACE OF MATERIALS | | | E | 3 | 0 | | 0 | 3 | 6 |  |  |  |  |  | |  |  |  |
| TEK 6033 | COLOUR ORDER SYSTEMS | | | S | 3 | 0 | | 0 | 3 | 6 |  |  |  |  |  | |  |  |  |
| TEK6035 | CURRENT TECHNICAL FABRIC APPLICATIONS | | | S | 3 | 0 | | 0 | 3 | 6 |  |  |  |  |  | |  |  |  |
| TEK 6037 | OPEN END ROTOR SPINNING | | | S | 3 | 0 | | 0 | 3 | 6 |  |  |  |  |  | |  |  |  |
|  |  | | |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |
|  |  | | |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |
| **Total Credits/ECTS** | | | | | | | | | **0** | **30** | **Total Credits/ECTS** | | | | | | | **0** | **30** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **THESIS STAGE** | **V. TERM / FALL** | | | | | | | | | **VI. TERM / SPRING** | | | | | | | | | |
| YET6177 | PHD PROFICIENCY | C | | 0 | 0 | 0 | 0 | 10 | TEK6186 | SPECIAL TOPICS IN PHD THESIS VI | C | 4 | 0 | 0 | | 0 | | 5 |
| TEK6185 | SPECIAL TOPICS IN PHD THESIS V | C | | 4 | 0 | 0 | 0 | 5 | TEK6196 | PHD THESIS CONSULTING VI | C | 0 | 1 | 0 | | 0 | | 25 |
| TEK6195 | PHD THESIS CONSULTING V | C | | 0 | 1 | 0 | 0 | 15 |  |  |  |  |  |  | |  | |  |
| **Total Credits/ECTS** | | | | | | | **0** | **30** | **Total Credits/ECTS** | | | | | | | **0** | | **30** |
| **VII. TERM / FALL** | | | | | | | | | **VIII. TERM / SPRING** | | | | | | | | | |
| TEK6187 | SPECIAL TOPICS IN PHD THESIS VII | C | 4 | | 0 | 0 | 0 | 5 | TEK6188 | SPECIAL TOPICS IN PHD THESIS VIII | C | 4 | 0 | 0 | 0 | | 5 | |
| TEK6197 | PHD THESIS CONSULTING VII | C | 0 | | 1 | 0 | 0 | 25 | TEK6198 | PHD THESIS CONSULTING VIII | C | 0 | 1 | 0 | 0 | | 25 | |
|  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  | |  | |
| **Total Credits/ECTS** | | | | | | | **0** | **30** | **Total Credits/ECTS** | | | | | | **0** | | **30** | |
| **IX. YARIYIL / GÜZ** | | | | | | | | | **IX. TERM / FALL** | | | | | | | | | |
| TEK6189 | SPECIAL TOPICS IN PHD THESIS IX | C | 4 | | 0 | 0 | 0 | 5 | TEK6190 | SPECIAL TOPICS IN PHD THESIS X | C | 4 | 0 | 0 | 0 | | 5 | |
| TEK6199 | PHD THESIS CONSULTING IX | C | 0 | | 1 | 0 | 0 | 25 | TEK6200 | PHD THESIS CONSULTING X | C | 0 | 1 | 0 | 0 | | 25 | |
| **Total Credits/ECTS** | | | | | | | **0** | **30** | **Total Credits/ECTS** | | | | | | **0** | | **30** | |
| **TOTAL CREDITS: 47 - TOTAL ECTS: 300** | | | | | | | | | | | | | | | | | | | |

|  |  |
| --- | --- |
| Prof.Dr. Dilek KUT  Head of Department  (Title, Name and Surname, Date, Signature) | Prof.Dr. Hüseyin Aksel EREN  Director of Institute  (Title, Name and Surname, Date, Signature) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2022-2023** **EĞİTİM ÖĞRETİM YILI KALDIRILAN/DEĞİŞTİRİLEN DERSLER** | | | | | | | | | | | | | | | | | | | **FR 1.1.1\_02** | |
| **ANABİLİM/ ANASANAT DALI** | | | Tekstil Mühendisliği | | | | | | | | | | | | | | | | | | | |
| **BİLİM/SANAT DALI / PROGRAMI** | | | Tekstil Mühendisliği / Yüksek Lisans- Doktora Programı | | | | | | | | | | | | | | | | | | | |
| 2021-2022  **Eğitim-Öğretim Yılı Kaldırılan/Değiştirilen Ders**  *(Bir önceki eğitim-öğretim yılı yazılacak)* | | | | | | | | | | | 2022-2023 **Eğitim-Öğretim Yılı Eş Değeri**  *(Teklif edilen eğitim-öğretim yılı yazılacak)* | | | | | | | | | **Uygulama Esasları\*** | | **Gerekçe\*\*** |
| **Kodu** | **Dersin Adı** | | | **Yarıyıl** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** | **Kodu** | **Dersin Adı** | **Yarıyıl** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
| **Toplam Kredi/AKTS** | | | | | | | | |  |  | **Toplam Kredi/AKTS** | | | | | | |  |  |  | | |
| \* Her değişiklikte giriş yılı farklı olan öğrenciler için uygulama esaslarının açıkça belirtilmesi.  \*\* Gerekçeler tablo ekinde metin olarak da belirtilebilir. | | | | | | | | | | | | | | | | | | | | | | |

Prof.Dr. Dilek KUT Prof.Dr. Hüseyin Aksel EREN

|  |  |
| --- | --- |
| Anabilim/Anasanat Dalı Başkanı  (Unvan, Ad Soyad Tarih, İmza) | Enstitü Müdürü  (Unvan, Ad Soyad Tarih, İmza) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2022-2023** **EĞİTİM ÖĞRETİM YILI ÖNERİLEN DERSLERİN ULUSAL/ULUSLARARASI KARŞILIKLARI** | | | | | | | | | | | | | **FR 1.1.1\_02** |
| **ANABİLİM/ANASANAT DALI** | | | TEKSTİL MÜHENDİSLİĞİ | | | | | | | | | | | | |
| **BİLİM/SANAT DALI / PROGRAMI** | | | Tekstil Mühendisliği / Yüksek Lisans- Doktora Programı | | | | | | | | | | | | |
| **Kodu** | **Dersin Adı** | | | **Yarıyıl** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** | **Dersin İçeriği** | **Örnek Üniversiteler** | | | |
| **Örnek 1** | **Örnek 2** | **Örnek 3** | |
|  | RENK SINIFLANDIRMA SİSTEMLERİ | | | Güz | S | 3 | 0 | 0 |  | 6 | Işık ve Madde,  Işık kaynakları ve Aydınlatıcılar  Kolorimetrinin Temelleri  Kolorimetri ve CIE Sistemi  Renk Uzayları, Renk Koordinatları ve Cetveller,  Renk Sınıflandırma Sistemleri  Sayısal Renk Belirleme  Sayısal Renk Eşleştirme  Renk Sınıflandırma Sistemlerinin Kullanımı | .Course Title:  PRINCIPLES OF COLOR  Farmingdale State College (A.B.D)  This course will explore the vast visual language of color including its characteristics, properties and schemes, as well as its expressive and symbolic usage.And understanding of the rich vocabulariesof both color and design will be enforced. Students will increase their skills in the identification and interpretation of design principles in contemporary and historically significant works of art. | Course Title: Introduction to Color Theory  The Cooper Union fort he Advancement of Science and Art (A.B.D)  What is color theory?  The study of color and its effects; the study of color’s relationship… but first, what is color.\*The refraction of White light into different wavelengths  How do we see color? Eye chart/ rods and cones  Why study color theory?  How to study color theory? | Course Title:  Color Theory And Application  University of California at Los Angeles (UCLA)  This course covers the study of the perception of color, its permutations, and its dimensions using traditional as well as contemprorary methods with an emphasis on individiual experimentation through lab exercises and demonstrations Topics include the color wheel; Munsel and Albers theories; perception, symbolism and psychology; | |
|  | GÜNCEL TEKNİK KUMAŞ UYGULAMALARI | | | Güz | S | 3 | 0 | 0 |  | 6 | İletkenlik Kavramı  Kumaşlarda Hava, Su ve Su Buharı Geçirgenliği  Tekstilde Nem Yönetimi ve Termal İletkenlik  Spor Giyim Kumaşlarının Üretiminde Kullanılan İplikler  Ses Yalıtımı ve Akustik Tekstiller  Görünür Işık, Ultraviyole ve Solar Geçirgenlik  Blackout ve Dimout Kumaşlar  Elektriksel İletkenlik  İletken Polimerler ve Metal Nanokompozitler  Karbon Black ve Karbon Nanotüp Lifler  Elektroiletken Tekstil İplik Tasarımı  Antistatik, ESD ve İletken Kumaşlar  Tekstilde Elektormanyetik Kalkanlama Özellikli Kumaş Tasarımları  Filtrasyon Özellikli Tekstil Yapıları ve Temiz Oda Giysileri | Course Title: THERMAL PROPERTIES OF TEXTILE PRODUCTS  University of Maribor  Design and Textile Materials  Yüksek Lisans  Fabrics and their resistance to the dry heat flow and the evaporating heat flow.  Warm-cold feeling.  The index of water vapor permeability, the index of air permeability. Thermophysiological  properties of fabrics/garments.  Parameters of thermal comfort.  The effects of clothing in the hot or cold  environment on human physiology. | Course Title: THERMAL PHYSIOLOGICAL COMFORT OF CLOTHING  University of MariborDesign and Textile MaterialsDoktora  Mechanism of heat transfer through human body and clothing systems. Effect of clothing on thermoregulatory responses of human body in a hot environment. Mathematical modelling of heat transfer through clothing. A simple and complex clothing models resp. clothing system. Determination of the thermal properties of clothing. Thermal protective clothing and comfort | Course Title: INTRODUCTION TO CONDUCTING POLYMERS  Mechanism of electrical conductivity of conducting polymers.  Classification of conducting polymers.  Potential  applications of conducting polymers, and recent advance of the researches in the fields of conducting polymers.  For example, organic  solar cells, and organic light emitting diodes. | |
|  | OPEN END (AÇIK UÇ) ROTOR İPLİKÇİLİK SİSTEMİ | | | Güz | S | 3 | 0 | 0 |  | 6 | Hammadde özellikleri ve hazırlık işlemlerinin rotor iplikçiliğindeki önemi  Şerit açma işlemi ve açma silindirleri rotor içerisinde lif birikimi ve iplik oluşumu,  Açma sistemi ve rotor yivi arasında lif hareketi,  Rotorda iplik oluşumu ve geri dublaj,  Rotorda iplik oluşumu ve yalancı bükümün etkisi,  Rotor ipliklerinde lif yerleşimi,  Rotor tipleri ve iplik özelliklerine etkileri,  Düze ve büküm durdurucu tipleri ve iplik özelliklerine etkileri,  Rotor ipliklerinin ve bunlardan elde edilen kumaşların karakteristik özellikleri,  Rotor iplikçiliğinde maliyetle ilgili hususlar ve üretim hesabı | Course Title: | Course Title: | Course Title: | |
|  | TEKSTİLDE  SÜRDÜRÜLEBİLİR TASARIM | | | Bahar | S | 3 | 0 | 0 |  | 6 | -Sürdürülebilir Tasarım Kavramı  -Eko tasarım (Ecodesign), Beşikten Beşiğe Tasarım (Cradle to Cradle Design), Yeşil Tasarım (Green Design), X için Tasarım (Design for X), Yaşam Döngüsü Tasarımı (Life Cycle Design)  -Sürdürülebilir Tasarım Prensipleri  -Ürün Yaşam Döngüsü  -Tekstilde Yaşam Döngüsü Değerlendirmesi (LCA)- ISO 14040 ve 14044 standartlarına göre Yaşam Döngüsü Değerlendirmeleri ve SimaPro Programının İncelenmesi  -Atık Hiyerarşisi: Önleme, Azaltma, Yeniden Kullanım, Geri Dönüşüm, Geri Kazanma, Atık Bertarafı  -Tekstil Endüstrisinde Karbon ve Enerji Ayak İzi  -Tekstil Ürünlerinde Açık ve Kapalı Döngü Geri Dönüşüm- Recycle, Upcycle, Downcycle Kavramları  -Sürdürülebilirlik Değerlendirme Araçları: Sürdürülebilir Tekstil Üretimi (STeP), Detox To Zero, Higg Indeksi  -Tekstilde Sürdürülebilirlik ile ilgili Sertifikasyonlar ve Eko Etiketler için Kullanılan Standart Test Yöntemleri  -Tekstil Sektöründe Sürdürülebilir Tasarımı Etkileyen Faktörler  -Sürdürülebilir Tasarımda Hammadde Faktörü  -Geri Dönüştürülmüş Doğal, Rejenere ve Sentetik Liflerden Mamul İplikler  -Çevre Dostu, Biyolojik Olarak Parçalanabilen Doğal Liflerden Mamul İplikler | Course Title: SUSTAINABLE INNOVATION AND MANUFACTURING  University of Leeds England (School of Design)  MSc Textile Sustainability and Innovation  - Critical review, evaluation and applications of current and emerging advanced textile and digital technologies and innovative manufacturing methods in the production of sustainable textile and fashion products:  - Advanced textile and garment manufacturing technologies: (sustainable) innovations in fibre, yarn and fabric (woven/knitted/nonwoven) manufacturing technology, garment/product durability and longevity, design for disassembly, fibrous microplastics release during manufacturing and use.  -Current and emerging open loop and closed loop recycling technologies for textiles and clothing resource flow.  - The factory of the future, digitalisation and the Internet of Things (IoT) , on-demand and additive manufacturing strategies for textile and clothing/fashion manufacturing. | Course Title: SUSTAINABILITY AND FASHION  University of Leeds England (School of Design) MSc Textile Sustainability and Innovation  -Improved sustainability in all aspects of human activity -The definitions of sustainability by considering environmental, social, ethical and economic concerns.  - Identifying how an existing product or servic could be modified or replaced to improve its sustainability or be used as a tool to improve sustainability of the user/consumer/society.  -The relationship between the fashion industry and the consumer influencing the way in which sustainability is view and developed. | Course Title: LIFE CYCLE ASSESSMENT  University of Boras  Master Programme in Resource Recovery - Polymer Materials for the Circular Economy  -Resource Recovery  - Waste characterisation  -Right recycling technology  - Future techniques and opportunities for  improved recycling  - Models to promote a development from linear economy to a circular  Economy  -The Life Cycle Assessment  -LCA method, its applications and its limitations. | |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  | |
|  |  | | |  |  |  |  |  |  |  |  |  |  |  | |
|  | | | | | | | | | | | | | | | |

Prof.Dr. Dilek KUT Prof.Dr. Hüseyin Aksel EREN

|  |  |
| --- | --- |
| Anabilim/Anasanat Dalı Başkanı  (Unvan, Ad Soyad Tarih, İmza) | Enstitü Müdürü  (Unvan, Ad Soyad Tarih, İmza) |