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| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2018-2019** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | ÇEVRE MÜHENDİSLİĞİ | | | | | | | | | | | | | | |
| **BİLİM 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** |
| CEV5191 | TEZ DANIŞMANLIĞI I | | Z | 0 | 1 | 0 | 0 | 1 | CEV5192 | TEZ DANIŞMANLIĞI II | Z | 0 | 1 | 0 | 0 | 1 |
| CEV5181 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ I | | Z | 4 | 0 | 0 | 0 | 5 | CEV5182 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ II | Z | 4 | 0 | 0 | 0 | 5 |
| CEV5301 | KİMYASALLARIN ÇEVRESEL HAREKETİ | | Z | 3 | 0 | 0 | 3 | 6 | CEV5172 | SEMİNER | Z | 0 | 2 | 0 | 0 | 4 |
|  |  | |  |  |  |  |  |  | CEV5000 | ÇEVRE MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ | Z | 2 | 0 | 0 | 2 | 2 |
|  |  | |  |  |  |  |  |  | CEV5302 | ÇEVRE MÜHENDİSLERİ İÇİN İSTATİSTİK | Z | 3 | 0 | 0 | 3 | 6 |
|  |  | |  |  |  |  |  |  | CEV5304 | İLERİ ÇEVRE MÜHENDİSLİĞİ KİMYASI I | Z | 3 | 0 | 0 | 3 | 6 |
| CEV | SEÇMELİ DERS | | S |  |  |  |  | 6 |  | SEÇMELİ DERS \* | S |  |  |  |  | 6 |
| CEV | SEÇMELİ DERS | | S |  |  |  |  | 6 |  |  |  |  |  |  |  |  |
|  | SEÇMELİ DERS \* | | S |  |  |  |  | 6 |  |  |  |  |  |  |  |  |
| **Toplam Kredi** | | | | | | | **12** | **30** | **Toplam Kredi** | | | | | | **11** | **30** |
| **TEZ AŞAMASI** | **III. YARIYIL / GÜZ** | | | | | | | | | **IV. YARIYIL / BAHAR** | | | | | | | |
| CEV5183 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ III | | Z | 4 | 0 | 0 | 0 | 5 | CEV5184 | YÜKSEK LİSANS UZMANLIK ALAN DERSİ IV | Z | 4 | 0 | 0 | 0 | 5 |
| CEV5193 | TEZ DANIŞMANLIĞI III | | Z | 0 | 1 | 0 | 0 | 25 | CEV5194 | TEZ DANIŞMANLIĞI IV | Z | 0 | 1 | 0 | 0 | 25 |
| **Toplam Kredi** | | | | | | | **0** | **30** | **Toplam Kredi** | | | | | | **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. Anabilim Dalınız doktora programından alacağınız ders de alan dışı kabul edilmektedir. | | | | | | | | | | | | | | | | | |
| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2018-2019** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)** | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | ÇEVRE MÜHENDİSLİĞİ | | | | | | | | | | | | | | |
| **BİLİM 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** |
| CEV5121 | ÇEVRE YÖNETİMİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5102 | ÇEVRESEL ENSTRÜMENTAL ANALİZ TEKNİĞİ | S | 2 | 0 | 2 | 3 | 6 |
| CEV5147 | İÇME SUYU MİKROBİYAL KALİTESİ ve DEZENFEKSİYON YAN-ÜRÜNLERİNİN KONTROLÜ | | S | 3 | 0 | 0 | 3 | 6 | CEV5122 | SU KALİTESİ YÖNETİMİ | S | 2 | 2 | 0 | 3 | 6 |
| CEV5243 | ENDÜSTRİYEL HAVA KİRLİLİĞİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5148 | ENDÜSTRİYEL ATIKSULARDA GERİ KAZANIM ve TEKRAR KULLANIM TEKNİKLERİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5247 | ÇEVRE TEKNOLOJİSİNİN TEMELLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5222 | ENDÜSTRİYEL ATIK YÖNETİMİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5249 | ATIKSU ARITMA TESİSİ BOYUTLANDIRMA KRİTERLERİ | | S | 2 | 2 | 0 | 3 | 6 | CEV5224 | BİYOLOJİK ARITMANIN PRENSİPLERİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5251 | BACAGAZI ÖLÇÜM ve ANALİZİ | | S | 2 | 0 | 2 | 3 | 6 | CEV5226 | ATIKSU MÜHENDİSLİĞİ | S | 2 | 2 | 0 | 3 | 6 |
| CEV5253 | DIŞ HAVA KALİTESİ ÖLÇÜM ve İZLENMESİ | | S | 2 | 0 | 2 | 3 | 6 | CEV5228 | ATIKSU ARITIMINDA İYON DEĞİŞİMİ ve ADSORPSİYON TEKNOLOJİSİ | S | 2 | 2 | 0 | 3 | 6 |
| CEV5255 | ATIKSU ARITIMINDA SULAK ALAN SİSTEMLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5230 | DÜZENLİ KATI ATIK DEPONİ ALANLARININ OLUŞTURULMASI | S | 2 | 2 | 0 | 3 | 6 |
| CEV5257 | İŞYERİNDE ÇEVRE GÜVENLİĞİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5232 | HAVA KİRLİLİĞİ MÜHENDİSLİĞİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5263 | YENİLENEBİLİR ENERJİ ve  ÇEVRE | | S | 3 | 0 | 0 | 3 | 6 | CEV5234 | ATMOSFERİK TAŞINIM ve ÇÖKELME | S | 2 | 0 | 2 | 3 | 6 |
| CEV5265 | TEMİZ ÜRETİM TEKNİKLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5236 | SU ve ATIKSU ARITMA TESİSLERİNİN ENSTRÜMENTASYONU ve KONTROLÜ | S | 2 | 2 | 0 | 3 | 6 |
| CEV5267 | SU ve ATIKSU MİKROBİYOLOJİSİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5238 | SU KALİTESİNİN BELİRLENMESİNDE BİYOİNDİKATÖR CANLILAR | S | 3 | 0 | 0 | 3 | 6 |
| CEV5269 | ATIKLARIN ANAEROBİK ARITIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV5242 | SU ve ATIKSULARIN DEZENFEKSİYONU | S | 3 | 0 | 0 | 3 | 6 |
| CEV5271 | SERA GAZI HESAPLAMA YÖNTEMLERİ ve İKLİM DEĞİŞİKLİĞİ | | S | 2 | 2 | 0 | 3 | 6 | CEV5244 | ÇEVRE MÜHENDİSLİĞİ İÇİN BİYOMOLEKÜLER TEKNİKLER | S | 3 | 0 | 0 | 3 | 6 |
| CEV5273 | ÇEVRE MÜHENDİSLİĞİNDE NANOTEKNOLOJİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5246 | İLERİ ATMOSFER KİMYASI | S | 3 | 0 | 0 | 3 | 6 |
| CEV5275 | ENTEGRE ATIK YÖNETİMİ TEKNOLOJİLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5248 | ÇEVRE KİRLİLİĞİ ve HALK SAĞLIĞI | S | 3 | 0 | 0 | 3 | 6 |
| CEV5277 | ATIK BERTARAFI ve YASAL MEVZUAT | | S | 3 | 0 | 0 | 3 | 6 | CEV5250 | ARAZİDE ARITMA | S | 3 | 0 | 0 | 3 | 6 |
| CEV5279 | SIZINTI SULARININ OLUŞUMU ve ARITIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV5306 | ÇEVRE KİRLİLİĞİ VE KONTROLÜNDE ENERJİ VERİMLİLİĞİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5281 | ENDÜSTRİYEL ATIKSULARIN BİYOLOJİK ARITIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV5308 | ÇEVRE TOKSİKOLOJİSİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5303 | KOMPOST TEKNOLOJİSİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5310 | NEHİR HAVZALARI HİDROLOJİSİ VE TAŞKIN – KURAKLIK MODELLEMESİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5305 | BİYOYAKIT ÜRETİMİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5312 | İLERİ FİZİKO – KİMYASAL ARITMA PROSESLERİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5307 | SEDİMAN KİRLİLİĞİ VE TAŞINIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV5314 | ARITMA ÇAMURU VE TOPRAK ANALİZLERİ | S | 2 | 0 | 2 | 3 | 6 |
| CEV5309 | ÇEVRE KİRLİLİĞİNİN TEMELLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5316 | ARITMA ÇAMURLARININ SUSUZLAŞTIRILMASI | S | 3 | 0 | 0 | 3 | 6 |
| CEV5311 | TOPRAK KİRLİLİĞİ VE KONTROLÜ | | S | 3 | 0 | 0 | 3 | 6 | CEV5318 | ORGANİK MİKROKİRLETİCİLER VE KONTROLÜ | S | 3 | 0 | 0 | 3 | 6 |
| **Not:** \*: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir. Anabilim Dalınız doktora programından alacağınız ders de alan dışı kabul edilmektedir. | | | | | | | | | | | | | | | | | |

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| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ UNIVERSITY**  **INSTITUTE OF NATURAL AND APPLIED SCIENCES**  2018-2019 **ACADEMIC YEAR COURSE PLAN** | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | **ENVIRONMENTAL ENGINEERING** | | | | | | | | | | | | | | |
| **BİLİM DALI / PROGRAMI** | | | Master's Degree Program | | | | | | | | | | | | | | |
| **DERS AŞAMASI** | **I. TERM / FALL** | | | | | | | | | **II. TERM / SPRING** | | | | | | | |
| **Code** | **Course Title** | | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** |
| CEV5191 | MA THESIS CONSULTING I | | C | 0 | 1 | 0 | 0 | 1 | CEV5192 | MA THESIS CONSULTING II | C | 0 | 1 | 0 | 0 | 1 |
| CEV5181 | ADVANCED TOPICS IN MA THESIS I | | C | 4 | 0 | 0 | 0 | 5 | CEV5182 | ADVANCED TOPICS IN MA THESIS II | C | 4 | 0 | 0 | 0 | 5 |
| CEV5301 | ENVIRONMENTAL MOVEMENT OF CHEMICALS | | C | 3 | 0 | 0 | 3 | 6 | CEV5172 | SEMINAR | C | 0 | 2 | 0 | 0 | 4 |
|  |  | |  |  |  |  |  |  | CEV5000 | RESEARCH TECHNIQUES and PUBLICATION ETHICS in ENVIRONMENTAL ENGINEERING | C | 2 | 0 | 0 | 2 | 2 |
|  |  | |  |  |  |  |  |  | CEV5302 | STATISTICS FOR ENVIRONMENTAL ENGINEERS | C | 3 | 0 | 0 | 3 | 6 |
|  |  | |  |  |  |  |  |  | CEV5304 | ADVANCED ENVIRONMENTAL ENGINEERING CHEMISTRY I | C | 3 | 0 | 0 | 3 | 6 |
| CEV | ELECTIVE COURSE | | E |  |  |  |  | 6 |  | ELECTIVE COURSE \* | E |  |  |  |  | 6 |
| CEV | ELECTIVE COURSE | | E |  |  |  |  | 6 |  |  |  |  |  |  |  |  |
|  | ELECTIVE COURSE \* | | E |  |  |  |  | 6 |  |  |  |  |  |  |  |  |
| **Total Credits** | | | | | | | **12** | **30** | **Total Credits** | | | | | | **11** | **30** |
| **TEZ AŞAMASI** | **III. TERM / FALL** | | | | | | | | | **IV. TERM / SPRING** | | | | | | | |
| CEV5183 | ADVANCED TOPICS IN MA THESIS III | | C | 4 | 0 | 0 | 0 | 5 | CEV5184 | ADVANCED TOPICS IN MA THESIS IV | C | 4 | 0 | 0 | 0 | 5 |
| CEV5193 | MA THESIS CONSULTING III | | C | 0 | 1 | 0 | 0 | 25 | CEV5194 | MA THESIS CONSULTING IV | C | 0 | 1 | 0 | 0 | 25 |
| **Total Credits** | | | | | | | **0** | **30** | **Total Credits** | | | | | | **0** | **30** |
| **TOTAL CREDITS: 23 TOTAL ECTS: 120** | | | | | | | | | | | | | | | | | |
| **Not:** \*:The student have the option of choosing one (1) out of field elective course with the same ECTS in each semester providing supervisor’s approval. An elective course from the doctorate program of the department is accepted as out of field course. | | | | | | | | | | | | | | | | | |
| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ UNIVERSITY**  **INSTITUTE OF NATURAL AND APPLIED SCIENCES**  2018-2019 **ACADEMIC YEAR COURSE PLAN (ELECTIVE COURSES)** | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | **ENVIRONMENTAL ENGINEERING** | | | | | | | | | | | | | | |
| **BİLİM DALI / PROGRAMI** | | | Master's Degree Program | | | | | | | | | | | | | | |
| **DERS AŞAMASI** | **I. TERM / FALL** | | | | | | | | | **II. TERM / SPRING** | | | | | | | |
| **Code** | **Course Title** | | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** |
| CEV5121 | ENVIRONMENTAL MANAGEMENT | | E | 3 | 0 | 0 | 3 | 6 | CEV5102 | ENVİRONMENTAL INSTRUMENTAL ANALYSIS | E | 2 | 0 | 2 | 3 | 6 |
| CEV5147 | MICROBIAL QUALITY OF DRINKING WATER AND  CONTROL OF DISINFECTION BY-PRODUCTS | | E | 3 | 0 | 0 | 3 | 6 | CEV5122 | WATER QUALITY MANAGEMENT | E | 2 | 2 | 0 | 3 | 6 |
| CEV5243 | INDUSTRIAL AIR POLLUTION | | E | 3 | 0 | 0 | 3 | 6 | CEV5148 | RECYCLE AND REUSE TECHNIQUES ON INDUSTRIAL WASTEWATERS | E | 3 | 0 | 0 | 3 | 6 |
| CEV5247 | BASICS OF ENVIRONMENTAL TECHNOLOGY | | E | 3 | 0 | 0 | 3 | 6 | CEV5222 | INDUSTRIAL WASTE MANAGEMENT | E | 3 | 0 | 0 | 3 | 6 |
| CEV5249 | DESIGN CRITERIA FOR WASTEWATER TREATMENT PLANTS | | E | 2 | 2 | 0 | 3 | 6 | CEV5224 | PRINCIPLES OF BIOLOGICAL TREATMENT | E | 3 | 0 | 0 | 3 | 6 |
| CEV5251 | STACK GAS MEASUREMENT AND ANALYSIS | | E | 2 | 0 | 2 | 3 | 6 | CEV5226 | WASTEWATER ENGINEERING | E | 2 | 2 | 0 | 3 | 6 |
| CEV5253 | MEASUREMENT AND MONITORING OF AMBIENT AIR | | E | 2 | 0 | 2 | 3 | 6 | CEV5228 | ION EXCHANGE AND ADSORPTION TECHNOLOGY IN WASTEWATER TREATMENT | E | 2 | 2 | 0 | 3 | 6 |
| CEV5255 | WETLAND SYSTEMS IN WASTEWATER TREATMENT | | E | 3 | 0 | 0 | 3 | 6 | CEV5230 | THE DESIGN OF LANDFILL AREAS | E | 2 | 2 | 0 | 3 | 6 |
| CEV5257 | ENVIRONMENTAL SAFETY FOR INDUSTRIES | | E | 3 | 0 | 0 | 3 | 6 | CEV5232 | AIR POLLUTION ENGINEERING | E | 3 | 0 | 0 | 3 | 6 |
| CEV5263 | RENEWABLE ENERGY AND ENVIRONMENT | | E | 3 | 0 | 0 | 3 | 6 | CEV5234 | ATMOSPHERIC TRANSPORT AND DEPOSITION | E | 2 | 0 | 2 | 3 | 6 |
| CEV5265 | CLEANER PRODUCTION PRINCIPLES | | E | 3 | 0 | 0 | 3 | 6 | CEV5236 | INSTRUMENTATION AND AUTOMATION OF WATER AND WASTEWATER TREATMENT PLANTS | E | 2 | 2 | 0 | 3 | 6 |
| CEV5267 | WATER AND WASTEWATER MICROBIOLOGY | | E | 3 | 0 | 0 | 3 | 6 | CEV5238 | BIOINDICATOR ORGANISMS IN DETERMINATION OF WATER QUALITY | E | 3 | 0 | 0 | 3 | 6 |
| CEV5269 | ANAEROBIC TREATMENT OF WASTES | | E | 3 | 0 | 0 | 3 | 6 | CEV5242 | DISINFECTION OF WATER AND WASTEWATER | E | 3 | 0 | 0 | 3 | 6 |
| CEV5271 | GREENHOUSE GASES CALCULATION METHODS AND CLIMATE CHANGE | | E | 2 | 2 | 0 | 3 | 6 | CEV5244 | MICROBIAL TECHNIQUES IN ENVIRONMENTAL ENGINEERING | E | 3 | 0 | 0 | 3 | 6 |
| CEV5273 | NANOTECHNOLOGY IN ENVIRONMENTAL ENGINEERING | | E | 3 | 0 | 0 | 3 | 6 | CEV5246 | ADVANCED ATMOSPHERIC CHEMISTRY | E | 3 | 0 | 0 | 3 | 6 |
| CEV5275 | INTEGRATED WASTE MANAGEMENT TECHNOLOGIES | | E | 3 | 0 | 0 | 3 | 6 | CEV5248 | ENVIRONMENTAL POLLUTION AND PUBLIC HEALTH | E | 3 | 0 | 0 | 3 | 6 |
| CEV5277 | WASTE DISPOSAL AND LEGAL FRAMEWORK | | E | 3 | 0 | 0 | 3 | 6 | CEV5250 | ON-SITE WASTEWATER TREATMENT | E | 3 | 0 | 0 | 3 | 6 |
| CEV5279 | FORMATION AND TREATMENT OF LANDFILL LEACHATE | | E | 3 | 0 | 0 | 3 | 6 | CEV5306 | ENERGY EFFICIENCY IN ENVIRONMENTAL POLLUTION AND CONTROL | E | 3 | 0 | 0 | 3 | 6 |
| CEV5281 | BIOLOGICAL TREATMENT OF INDUSTRIAL WASTEWATERS | | E | 3 | 0 | 0 | 3 | 6 | CEV5308 | ENVİRONMENTAL TOXICOLOGY | E | 3 | 0 | 0 | 3 | 6 |
| CEV5303 | COMPOSTING TECHNOLOGY | | E | 3 | 0 | 0 | 3 | 6 | CEV5310 | HYDROLOGY OF RIVER CATCHMENTS AND FLOOD-DROUGHT MODELLING | E | 3 | 0 | 0 | 3 | 6 |
| CEV5305 | PRODUCTION OF BIOFUELS | | E | 3 | 0 | 0 | 3 | 6 | CEV5312 | ADVANCED PHYSİCO-CHEMİCAL TREATMENT PROCESSES | E | 3 | 0 | 0 | 3 | 6 |
| CEV5307 | SEDIMENT POLLUTION AND TRANSPORT | | E | 3 | 0 | 0 | 3 | 6 | CEV5314 | WASTEWATER SLUDGE AND SOİL ANALYSİS | E | 2 | 0 | 2 | 3 | 6 |
| CEV5309 | PRINCIPLES OF ENVIRONMENTAL POLLUTION | | E | 3 | 0 | 0 | 3 | 6 | CEV5316 | DEWATERİNG OF TREATMENT SLUDGES | E | 3 | 0 | 0 | 3 | 6 |
| CEV5311 | SOIL POLLUTION AND CONTROL | | E | 3 | 0 | 0 | 3 | 6 | CEV5318 | ORGANIC MICROPOLLUTANTS AND CONTROL | E | 3 | 0 | 0 | 3 | 6 |
| **Not:** \*: The student have the option of choosing one (1) out of field elective course with the same ECTS in each semester providing supervisor’s approval. An elective course from the doctorate program of the department is accepted as out of field course. | | | | | | | | | | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2018-2019** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | ÇEVRE MÜHENDİSLİĞİ | | | | | | | | | | | | | | | |
| **BİLİM 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** |
| CEV6191 | TEZ DANIŞMANLIĞI I | | Z | 0 | 1 | 0 | 0 | 1 | CEV6192 | TEZ DANIŞMANLIĞI II | Z | 0 | 1 | 0 | 0 | | 1 |
| CEV6181 | DOKTORA UZMANLIK ALAN DERSİ I | | Z | 4 | 0 | 0 | 0 | 5 | CEV6182 | DOKTORA UZMANLIK ALAN DERSİ II | Z | 4 | 0 | 0 | 0 | | 5 |
| CEV6301 | İLERİ ÇEVRE MÜHENDİSLİĞİ KİMYASI II | | Z | 3 | 0 | 0 | 3 | 6 | CEV6172 | SEMİNER | Z | 0 | 2 | 0 | 0 | | 4 |
|  |  | |  |  |  |  |  |  | FEN6000 | ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ | Z | 2 | 0 | 0 | 2 | | 2 |
| CEV | SEÇMELİ DERS | | S |  |  |  |  | 6 | CEV | SEÇMELİ DERS | S |  |  |  |  | | 6 |
| CEV | SEÇMELİ DERS | | S |  |  |  |  | 6 | CEV | SEÇMELİ DERS | S |  |  |  |  | | 6 |
|  | SEÇMELİ DERS \* | | S |  |  |  |  | 6 |  | SEÇMELİ DERS \* | S |  |  |  |  | | 6 |
|  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
| **Toplam Kredi** | | | | | | | **12** | **30** | **Toplam Kredi** | | | | | | **11** | | **30** |
| **TEZ AŞAMASI** | **III. YARIYIL / GÜZ** | | | | | | | | | **IV. YARIYIL / BAHAR** | | | | | | | | |
| YET6177 | DOKTORA YETERLİLİK SINAVI | | Z | 0 | 0 | 0 | 0 | 10 | CEV6184 | DOKTORA UZMANLIK ALAN DERSİ IV | Z | 4 | 0 | 0 | 0 | | 5 |
| CEV6183 | DOKTORA UZMANLIK ALAN DERSİ III | | Z | 4 | 0 | 0 | 0 | 5 | CEV6194 | TEZ DANIŞMANLIĞI IV | Z | 0 | 1 | 0 | 0 | | 25 |
| CEV6193 | TEZ DANIŞMANLIĞI III | | Z | 0 | 1 | 0 | 0 | 15 |  |  |  |  |  |  |  | |  |
| **Toplam Kredi** | | | | | | | **0** | **30** | **Toplam Kredi** | | | | | | **0** | | **30** |
| **V. YARIYIL / GÜZ** | | | | | | | | | **VI. YARIYIL / BAHAR** | | | | | | | | |
| CEV6185 | DOKTORA UZMANLIK ALAN DERSİ V | | Z | 4 | 0 | 0 | 0 | 5 | CEV6186 | DOKTORA UZMANLIK ALAN DERSİ VI | Z | 4 | 0 | 0 | 0 | 5 | |
| CEV6195 | TEZ DANIŞMANLIĞI V | | Z | 0 | 1 | 0 | 0 | 25 | CEV6196 | TEZ DANIŞMANLIĞI VI | Z | 0 | 1 | 0 | 0 | 25 | |
| **Toplam Kredi** | | | | | | | **0** | **30** | **Toplam Kredi** | | | | | | **0** | **30** | |
| **VII. YARIYIL / GÜZ** | | | | | | | | | **VIII. YARIYIL / BAHAR** | | | | | | | | |
| CEV6187 | DOKTORA UZMANLIK ALAN DERSİ VII | | Z | 4 | 0 | 0 | 0 | 5 | CEV6188 | DOKTORA UZMANLIK ALAN DERSİ VIII | Z | 4 | 0 | 0 | 0 | 5 | |
| CEV6197 | TEZ DANIŞMANLIĞI VII | | Z | 0 | 1 | 0 | 0 | 25 | CEV6198 | TEZ DANIŞMANLIĞI VIII | Z | 0 | 1 | 0 | 0 | 25 | |
| **Toplam Kredi** | | | | | | | **0** | **30** | **Toplam Kredi** | | | | | | **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. Doktora programı öğrencisi yüksek lisans programlarından ders alamaz. | | | | | | | | | | | | | | | | | | |
| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2018-2019** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)** | | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | ÇEVRE MÜHENDİSLİĞİ | | | | | | | | | | | | | | | |
| **BİLİM 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** |
| CEV6101 | SU KİMYASI | | S | 2 | 0 | 2 | 3 | 6 | CEV6124 | YÜZEYSEL SU KALİTESİ MODELLEMESİ | S | 2 | 2 | 0 | 3 | | 6 |
| CEV6123 | GÖL SU KALİTESİ MODELLEMESİ | | S | 2 | 2 | 0 | 3 | 6 | CEV6208 | EVSEL ve ENDÜSTRİYEL AKTİF ÇAMUR BERTARAF TEKNİKLERİ | S | 2 | 2 | 0 | 3 | | 6 |
| CEV6221 | TEHLİKELİ ve ZARARLI ATIKLAR | | S | 2 | 2 | 0 | 3 | 6 | CEV6224 | ENDÜSTRİYEL ATIK ARITIMI ve BERTARAFI | S | 2 | 2 | 0 | 3 | | 6 |
| CEV6225 | TEHLİKELİ ATIKLARIN STABİLİZASYONU ve SOLİDİFİKASYONU | | S | 3 | 0 | 0 | 3 | 6 | CEV6242 | HAVA KİRLİLİĞİ METEOROLOJİSİ | S | 3 | 0 | 0 | 3 | | 6 |
| CEV6227 | AKTİF ÇAMUR SİSTEMLERİNDE BİLGİSAYAR DESTEKLİ MODEL YAKLAŞIMLARI | | S | 2 | 2 | 0 | 3 | 6 | CEV6244 | AKTİF ÇAMUR PROSESİNİN DİZAYNI ve İŞLETİMİNDE RESPİROMETRİK METODUN KULLANILMASI | S | 2 | 0 | 2 | 3 | | 6 |
| CEV6229 | TOKSİK ORGANİK BİLEŞİKLERİN BİYOLOJİK ARITIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV6246 | ARITMA TESİSLERİ İŞLETİLMESİ | S | 2 | 0 | 2 | 3 | | 6 |
| CEV6231 | İLERİ ARITMA TEKNİKLERİ | | S | 2 | 2 | 0 | 3 | 6 | CEV6248 | ATIKSU ARITMA TESİSİ BİYOKİNETİK TEKNİKLERİ | S | 3 | 0 | 0 | 3 | | 6 |
| CEV6233 | ARITMA ÇAMURLARININ ARAZİYE UYGULANMASI | | S | 3 | 0 | 0 | 3 | 6 | CEV6250 | İLERİ OKSİDASYON ve MEMBRAN TEKNOLOJİLERİYLE  SU ve ATIKSU ARITIMI | S | 3 | 0 | 0 | 3 | | 6 |
| CEV6303 | BİYOKÜTLE ENERJİSİ TEKNOLOJİLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV6252 | ATIK ve ATIK SU ARITIMI İÇİN BİYOTEKNOLOJİK PROSESLER | S | 3 | 0 | 0 | 3 | | 6 |
| CEV6305 | TEHLİKELİ HAVA KİRLETİCİLER ve RİSK ANALİZİ | | S | 3 | 0 | 0 | 3 | 6 | CEV6254 | AKTİF ÇAMUR SİSTEMLERİNİN MODELLENMESİ | S | 3 | 0 | 0 | 3 | | 6 |
|  |  | |  |  |  |  |  |  | CEV6256 | İKLİM DEĞİŞİKLİĞİ ETKİLERİ ve ADAPTASYON | S | 3 | 0 | 0 | 3 | | 6 |
|  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
|  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
| **Not:** \*: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir. Doktora programı öğrencisi yüksek lisans programlarından ders alamaz. | | | | | | | | | | | | | | | | | | |

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| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ UNIVERSITY**  **INSTITUTE OF NATURAL AND APPLIED SCIENCES**  2018-2019 **ACADEMIC YEAR COURSE PLAN** | | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | **ENVIRONMENTAL ENGINEERING** | | | | | | | | | | | | | | | |
| **BİLİM DALI / PROGRAMI** | | | Doctoral Program | | | | | | | | | | | | | | | |
| **DERS AŞAMASI** | **I. TERM / FALL** | | | | | | | | | **II. TERM / SPRING** | | | | | | | | |
| **Code** | **Course Title** | | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type** | **T** | **U** | **L** | **Credit** | | **ECTS** |
| CEV6191 | PHD THESIS CONSULTING I | | C | 0 | 1 | 0 | 0 | 1 | CEV6192 | PHD THESIS CONSULTING II | C | 0 | 1 | 0 | 0 | | 1 |
| CEV6181 | ADVANCED TOPICS IN PHD THESIS I | | C | 4 | 0 | 0 | 0 | 5 | CEV6182 | ADVANCED TOPICS IN PHD THESIS II | C | 4 | 0 | 0 | 0 | | 5 |
| CEV6301 | ADVANCED ENVIRONMENTAL ENGINEERING CHEMISTRY II | | C | 3 | 0 | 0 | 3 | 6 | CEV6172 | SEMINAR | C | 0 | 2 | 0 | 0 | | 4 |
|  |  | |  |  |  |  |  |  | FEN6000 | RESEARCH TECHNIQUES and PUBLICATION ETHICS | C | 2 | 0 | 0 | 2 | | 2 |
| CEV | ELECTIVE COURSE | | E |  |  |  |  | 6 | CEV | ELECTIVE COURSE | E |  |  |  |  | | 6 |
| CEV | ELECTIVE COURSE | | E |  |  |  |  | 6 | CEV | ELECTIVE COURSE | E |  |  |  |  | | 6 |
|  | ELECTIVE COURSE \* | | E |  |  |  |  | 6 |  | ELECTIVE COURSE \* | E |  |  |  |  | | 6 |
|  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
| **Total Credits** | | | | | | | **12** | **30** | **Total Credits** | | | | | | **11** | | **30** |
| **TEZ AŞAMASI** | **III. TERM / FALL** | | | | | | | | | **IV. TERM / SPRING** | | | | | | | | |
| CEV6183 | ADVANCED TOPICS IN PHD THESIS III | | C | 4 | 0 | 0 | 0 | 5 | CEV6184 | ADVANCED TOPICS IN PHD THESIS IV | C | 4 | 0 | 0 | 0 | | 5 |
| CEV6193 | PHD THESIS CONSULTING III | | C | 0 | 1 | 0 | 0 | 15 | CEV6194 | PHD THESIS CONSULTING IV | C | 0 | 1 | 0 | 0 | | 25 |
| YET6177 | PHD PROFICIENCY EXAMINATION | | C | 0 | 0 | 0 | 0 | 10 |  |  |  |  |  |  |  | |  |
| **Total Credits** | | | | | | | **0** | **30** | **Total Credits** | | | | | | **0** | | **30** |
| **V. TERM / FALL** | | | | | | | | | **VII. TERM / SPRING** | | | | | | | | |
| CEV6185 | ADVANCED TOPICS IN PHD THESIS V | | C | 4 | 0 | 0 | 0 | 5 | CEV6186 | ADVANCED TOPICS IN PHD THESIS VI | C | 4 | 0 | 0 | 0 | 5 | |
| CEV6195 | PHD THESIS CONSULTING V | | C | 0 | 1 | 0 | 0 | 25 | CEV6196 | PHD THESIS CONSULTING VI | C | 0 | 1 | 0 | 0 | 25 | |
| **Total Credits** | | | | | | | **0** | **30** | **Total Credits** | | | | | | **0** | **30** | |
| **VII. TERM / FALL** | | | | | | | | | **VIII. TERM / SPRING** | | | | | | | | |
| CEV6187 | ADVANCED TOPICS IN PHD THESIS VII | | C | 4 | 0 | 0 | 0 | 5 | CEV6188 | ADVANCED TOPICS IN PHD THESIS VIII | C | 4 | 0 | 0 | 0 | 5 | |
| CEV6197 | PHD THESIS CONSULTING VII | | C | 0 | 1 | 0 | 0 | 25 | CEV6198 | PHD THESIS CONSULTING VIII | C | 0 | 1 | 0 | 0 | 25 | |
| **Total Credits** | | | | | | | **0** | **30** | **Total Credits** | | | | | | **0** | **30** | |
| **TOTAL CREDITS: 23 TOTAL ECTS: 240** | | | | | | | | | | | | | | | | | | |
| **Not:** \*: The student have the option of choosing one (1) out of field elective course with the same ECTS in each semester providing supervisor’s approval. PhD students can not take a course from MSc programmes. | | | | | | | | | | | | | | | | | | |
| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ UNIVERSİTY**  **INSTITUTE OF NATURAL AND APPLIED SCIENCES**  2018-2019 **ACADEMIC YEAR COURSE PLAN (ELECTIVE COURSES)** | | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | **ENVIRONMENTAL ENGINEERING** | | | | | | | | | | | | | | | |
| **BİLİM DALI / PROGRAMI** | | | Doctoral Program | | | | | | | | | | | | | | | |
| **DERS AŞAMASI** | **I. TERM / FALL** | | | | | | | | | **II. TERM / SPRING** | | | | | | | | |
| **Code** | **Course Title** | | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type** | **T** | **U** | **L** | **Credit** | | **ECTS** |
| CEV6101 | WATER CHEMISTRY | | E | 2 | 0 | 2 | 3 | 6 | CEV6124 | SURFACE WATER QUALITY MODELLING | E | 2 | 2 | 0 | 3 | | 6 |
| CEV6123 | LAKE WATER QUALITY MODELLİNG | | E | 2 | 2 | 0 | 3 | 6 | CEV6208 | DISPOSAL TECHNİQUES OF DOMESTIC AND INDUSTRIAL SLUDGE | E | 2 | 2 | 0 | 3 | | 6 |
| CEV6221 | HAZARDOUS WASTES | | E | 2 | 2 | 0 | 3 | 6 | CEV6224 | TREATMENT AND DISPOSAL OF INDUSTRIAL WASTES | E | 2 | 2 | 0 | 3 | | 6 |
| CEV6225 | STABILIZATION AND SOLIDIFICATION OF HAZARDOUS WASTES | | E | 3 | 0 | 0 | 3 | 6 | CEV6242 | AIR POLLUTION METEOROLOGY | E | 3 | 0 | 0 | 3 | | 6 |
| CEV6227 | COMPUTER SUPPORTED MODEL APPROACHES IN ACTIVATED SLUDGE SYSTEMS | | E | 2 | 2 | 0 | 3 | 6 | CEV6244 | USE OF RESPIROMETRIC METHOD IN DESIGN AND OPERATION OF ACTIVATED SLUDGE PROCESS | E | 2 | 0 | 2 | 3 | | 6 |
| CEV6229 | BIOLOGICAL TREATMENT OF TOXIC ORGANIC COMPOUNDS | | E | 3 | 0 | 0 | 3 | 6 | CEV6246 | OPERATION OF TREATMENT PLANTS | E | 2 | 0 | 2 | 3 | | 6 |
| CEV6231 | ADVANCED TREATMENT TECHNIQUES | | E | 2 | 2 | 0 | 3 | 6 | CEV6248 | BIOKINETICS TECHNIQUES OF WASTEWATER TREATMENT PLANTS | E | 3 | 0 | 0 | 3 | | 6 |
| CEV6233 | LAND APPLICATION OF WASTEWATER SLUDGES | | E | 3 | 0 | 0 | 3 | 6 | CEV6250 | WATER AND WASTEWATER TREATMENT WITH ADVANCED OXIDATION AND MEMBRANE TECHNOLOGIES | E | 3 | 0 | 0 | 3 | | 6 |
| CEV6303 | BIOMASS ENERGY TECHNOLOGIES | | E | 3 | 0 | 0 | 3 | 6 | CEV6252 | WASTE AND WASTEWATER TREATMENT FOR BIOTECHNOLOGY PROCESSES | E | 3 | 0 | 0 | 3 | | 6 |
| CEV6305 | HAZARDOUS AIR POLLUTANTS AND RISK ANALYSIS | | E | 3 | 0 | 0 | 3 | 6 | CEV6254 | MODELLING OF ACTIVATED SLUDGE SYSTEMS | E | 3 | 0 | 0 | 3 | | 6 |
|  |  | |  |  |  |  |  |  | CEV6256 | CLIMATE CHANGE IMPACTS AND ADAPTATION | E | 3 | 0 | 0 | 3 | | 6 |
|  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
| **Not:** \*: The student have the option of choosing one (1) out of field elective course with the same ECTS in each semester providing supervisor’s approval. PhD students can not take a course from MSc programmes. | | | | | | | | | | | | | | | | | | |

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| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2018-2019** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | | | | | | | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | | CEVRE MÜHENDİSLİĞİ | | | | | | | | | | | | | | | | | | | |
| **BİLİM 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** |
| CEV6191 | | DOKTORA TEZ DANIŞMANLIĞI I | | Z | | | 0 | 1 | 0 | 0 | 1 | CEV6192 | | DOKTORA TEZ DANIŞMANLIĞI II | Z | 0 | 1 | 0 | | 0 | | 1 |
| CEV6181 | | DOKTORA UZMANLIK ALAN DERSİ I | | Z | | | 4 | 0 | 0 | 0 | 5 | CEV6182 | | DOKTORA UZMANLIK ALAN DERSİ II | Z | 4 | 0 | 0 | | 0 | | 5 |
| CEV5 | | SEÇMELİ DERS | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5 | | SEÇMELİ DERS | S | S | 3 | 0 | | 3 | | 6 |
| CEV5 | | SEÇMELİ DERS | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5 | | SEÇMELİ DERS | S | S | 3 | 0 | | 3 | | 6 |
| CEV5 | | SEÇMELİ DERS | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5 | | SEÇMELİ DERS | S | S | 3 | 0 | | 3 | | 6 |
| CEV5 | | SEÇMELİ DERS | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5 | | SEÇMELİ DERS | S | S | 3 | 0 | | 3 | | 6 |
| **Toplam Kredi** | | | | | | | | | | **12** | **30** | **Toplam Kredi** | | | | | | | | **12** | | **30** |
| **TEZ AŞAMASI** | **III. YARIYIL / GÜZ** | | | | | | | | | | | | **IV. YARIYIL / BAHAR** | | | | | | | | | | |
| CEV6193 | DOKTORA TEZ DANIŞMANLIĞI III | | | | Z | | 0 | 1 | 0 | 0 | 1 | CEV6172 | | SEMİNER | Z | 0 | 2 | 0 | | 0 | | 4 |
| CEV6183 | DOKTORA UZMANLIK ALAN DERSİ III | | | | Z | | 4 | 0 | 0 | 0 | 5 | FEN6000 | | ARAŞTIRMA TEKNİKLERİ VE YAYIN ETİĞİ | Z | 2 | 0 | 0 | | 2 | | 2 |
| CEV6301 | İLERİ ÇEVRE MÜHENDİSLİĞİ KİMYASI II | | | | Z | | 3 | 0 | 0 | 3 | 6 | CEV6194 | | DOKTORA TEZ DANIŞMANLIĞI IV | Z | 0 | 1 | 0 | | 0 | | 1 |
|  |  | | | |  | |  |  |  |  |  | CEV6184 | | DOKTORA UZMANLIK ALAN DERSİ IV | Z | 4 | 0 | 0 | | 0 | | 5 |
| CEV6 | SEÇMELİ DERS | | | | S | |  |  |  |  | 6 | CEV6 | | SEÇMELİ DERS | S |  |  |  | |  | | 6 |
| CEV6 | SEÇMELİ DERS | | | | S | |  |  |  |  | 6 | CEV6 | | SEÇMELİ DERS | S |  |  |  | |  | | 6 |
|  | SEÇMELİ DERS \* | | | | S | |  |  |  |  | 6 |  | | SEÇMELİ DERS\* | S |  |  |  | |  | | 6 |
|  |  | | | |  | |  |  |  |  |  |  | |  |  |  |  |  | |  | |  |
| **Toplam Kredi** | | | | | | | | | | **12** | **30** | **Toplam Kredi** | | | | | | | | **11** | | **30** |
| **V. YARIYIL / GÜZ** | | | | | | | | | | | | **VI. YARIYIL / BAHAR** | | | | | | | | | | |
| YET6177 | DOKTORA YETERLİLİK SINAVI | | | | Z | | 0 | 0 | 0 | 0 | 10 | CEV6186 | DOKTORA UZMANLIK ALAN DERSİ VI | | Z | 4 | 0 | 0 | | 0 | | 5 |
| CEV6185 | DOKTORA UZMANLIK ALAN DERSİ V | | | | Z | | 4 | 0 | 0 | 0 | 5 | CEV6196 | DOKTORA TEZ DANIŞMANLIĞI VI | | Z | 0 | 1 | 0 | | 0 | | 25 |
| CEV6195 | DOKTORA TEZ DANIŞMANLIĞI V | | | | Z | | 0 | 1 | 0 | 0 | 15 |  |  | |  |  |  |  | |  | |  |
| **Toplam Kredi** | | | | | | | | | | **0** | **30** | **Toplam Kredi** | | | | | | | | **0** | | **30** |
| **VII. YARIYIL / GÜZ** | | | | | | | | | | | | **VIII. YARIYIL / BAHAR** | | | | | | | | | | |
| CEV6187 | DOKTORA UZMANLIK ALAN DERSİ VII | | | | Z | 4 | | 0 | 0 | 0 | 5 | CEV6188 | DOKTORA UZMANLIK ALAN DERSİ VIII | | Z | 4 | 0 | 0 | 0 | | 5 | |
| CEV6197 | DOKTORA TEZ DANIŞMANLIĞI VII | | | | Z | 0 | | 1 | 0 | 0 | 25 | CEV6198 | DOKTORA TEZ DANIŞMANLIĞI VIII | | Z | 0 | 1 | 0 | 0 | | 25 | |
| **Toplam Kredi** | | | | | | | | | | **0** | **30** | **Toplam Kredi** | | | | | | | **0** | | **30** | |
| **IX. YARIYIL / GÜZ** | | | | | | | | | | | | **X. YARIYIL / BAHAR** | | | | | | | | | | |
| CEV6189 | DOKTORA UZMANLIK ALAN DERSİ IX | | | | Z | 4 | | 0 | 0 | 0 | 5 | CEV6190 | DOKTORA UZMANLIK ALAN DERSİ X | | Z | 4 | 0 | 0 | 0 | | 5 | |
| CEV6199 | DOKTORA TEZ DANIŞMANLIĞI IX | | | | Z | 0 | | 1 | 0 | 0 | 25 | CEV6200 | DOKTORA TEZ DANIŞMANLIĞI X | | Z | 0 | 1 | 0 | 0 | | 25 | |
| **Toplam Kredi** | | | | | | | | | | **0** | **30** | **Toplam Kredi** | | | | | | | **0** | | **30** | |
| **TOPLAM KREDİ: 47 - TOPLAM AKTS: 300** | | | | | | | | | | | | | | | | | | | | | | | |
| **Not:** \*: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir. | | | | | | | | | | | | | | | | | | | | | | | |
| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2018-2019** **EĞİTİM ÖĞRETİM YILI DERS PLANLARI (SEÇMELİ DERSLER)** | | | | | | | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | | ÇEVRE MÜHENDİSLİĞİ | | | | | | | | | | | | | | | | | | | |
| **BİLİM 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** |
| CEV5121 | ÇEVRE YÖNETİMİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5102 | | ÇEVRESEL ENSTRÜMENTAL ANALİZ TEKNİĞİ | S | 2 | 0 | 2 | | 3 | | 6 |
| CEV5147 | İÇME SUYU MİKROBİYAL KALİTESİ ve DEZENFEKSİYON YAN-ÜRÜNLERİNİN KONTROLÜ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5122 | | SU KALİTESİ YÖNETİMİ | S | 2 | 2 | 0 | | 3 | | 6 |
| CEV5243 | ENDÜSTRİYEL HAVA KİRLİLİĞİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5148 | | ENDÜSTRİYEL ATIKSULARDA GERİ KAZANIM ve TEKRAR KULLANIM TEKNİKLERİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5247 | ÇEVRE TEKNOLOJİSİNİN TEMELLERİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5222 | | ENDÜSTRİYEL ATIK YÖNETİMİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5249 | ATIKSU ARITMA TESİSİ BOYUTLANDIRMA KRİTERLERİ | | | S | | | 2 | 2 | 0 | 3 | 6 | CEV5224 | | BİYOLOJİK ARITMANIN PRENSİPLERİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5251 | BACAGAZI ÖLÇÜM ve ANALİZİ | | | S | | | 2 | 0 | 2 | 3 | 6 | CEV5226 | | ATIKSU MÜHENDİSLİĞİ | S | 2 | 2 | 0 | | 3 | | 6 |
| CEV5253 | DIŞ HAVA KALİTESİ ÖLÇÜM ve İZLENMESİ | | | S | | | 2 | 0 | 2 | 3 | 6 | CEV5228 | | ATIKSU ARITIMINDA İYON DEĞİŞİMİ ve ADSORPSİYON TEKNOLOJİSİ | S | 2 | 2 | 0 | | 3 | | 6 |
| CEV5255 | ATIKSU ARITIMINDA SULAK ALAN SİSTEMLERİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5230 | | DÜZENLİ KATI ATIK DEPONİ ALANLARININ OLUŞTURULMASI | S | 2 | 2 | 0 | | 3 | | 6 |
| CEV5257 | İŞYERİNDE ÇEVRE GÜVENLİĞİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5232 | | HAVA KİRLİLİĞİ MÜHENDİSLİĞİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5263 | YENİLENEBİLİR ENERJİ ve  ÇEVRE | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5234 | | ATMOSFERİK TAŞINIM ve ÇÖKELME | S | 2 | 0 | 2 | | 3 | | 6 |
| CEV5265 | TEMİZ ÜRETİM TEKNİKLERİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5236 | | SU ve ATIKSU ARITMA TESİSLERİNİN ENSTRÜMENTASYONU ve KONTROLÜ | S | 2 | 2 | 0 | | 3 | | 6 |
| CEV5267 | SU ve ATIKSU MİKROBİYOLOJİSİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5238 | | SU KALİTESİNİN BELİRLENMESİNDE BİYOİNDİKATÖR CANLILAR | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5269 | ATIKLARIN ANAEROBİK ARITIMI | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5242 | | SU ve ATIKSULARIN DEZENFEKSİYONU | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5271 | SERA GAZI HESAPLAMA YÖNTEMLERİ ve İKLİM DEĞİŞİKLİĞİ | | | S | | | 2 | 2 | 0 | 3 | 6 | CEV5244 | | ÇEVRE MÜHENDİSLİĞİ İÇİN BİYOMOLEKÜLER TEKNİKLER | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5273 | ÇEVRE MÜHENDİSLİĞİNDE NANOTEKNOLOJİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5246 | | İLERİ ATMOSFER KİMYASI | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5275 | ENTEGRE ATIK YÖNETİMİ TEKNOLOJİLERİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5248 | | ÇEVRE KİRLİLİĞİ ve HALK SAĞLIĞI | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5277 | ATIK BERTARAFI ve YASAL MEVZUAT | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5250 | | ARAZİDE ARITMA | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5279 | SIZINTI SULARININ OLUŞUMU ve ARITIMI | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5306 | | ÇEVRE KİRLİLİĞİ VE KONTROLÜNDE ENERJİ VERİMLİLİĞİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5281 | ENDÜSTRİYEL ATIKSULARIN BİYOLOJİK ARITIMI | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5308 | | ÇEVRE TOKSİKOLOJİSİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5303 | KOMPOST TEKNOLOJİSİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5310 | | NEHİR HAVZALARI HİDROLOJİSİ VE TAŞKIN – KURAKLIK MODELLEMESİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5305 | BİYOYAKIT ÜRETİMİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5312 | | İLERİ FİZİKO – KİMYASAL ARITMA PROSESLERİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5307 | SEDİMAN KİRLİLİĞİ VE TAŞINIMI | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5314 | | ARITMA ÇAMURU VE TOPRAK ANALİZLERİ | S | 2 | 0 | 2 | | 3 | | 6 |
| CEV5309 | ÇEVRE KİRLİLİĞİNİN TEMELLERİ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5316 | | ARITMA ÇAMURLARININ SUSUZLAŞTIRILMASI | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV5311 | TOPRAK KİRLİLİĞİ VE KONTROLÜ | | | S | | | 3 | 0 | 0 | 3 | 6 | CEV5318 | | ORGANİK MİKROKİRLETİCİLER VE KONTROLÜ | S | 3 | 0 | 0 | | 3 | | 6 |
|  |  |  | | |  | | |  |  |  |  |  |  | |  |  |  |  |  | |  | |  |
| **TEZ AŞAMASI** | **III. YARIYIL / GÜZ** | | | | | | | | | | | | **IV. YARIYIL / BAHAR** | | | | | | | | | | |
| CEV6101 | | SU KİMYASI | | | S | | 2 | 0 | 2 | 3 | 6 | CEV6124 | | YÜZEYSEL SU KALİTESİ MODELLEMESİ | S | 2 | 2 | 0 | | 3 | | 6 |
| CEV6123 | | GÖL SU KALİTESİ MODELLEMESİ | | | S | | 2 | 2 | 0 | 3 | 6 | CEV6208 | | EVSEL ve ENDÜSTRİYEL AKTİF ÇAMUR BERTARAF TEKNİKLERİ | S | 2 | 2 | 0 | | 3 | | 6 |
| CEV6221 | | TEHLİKELİ ve ZARARLI ATIKLAR | | | S | | 2 | 2 | 0 | 3 | 6 | CEV6224 | | ENDÜSTRİYEL ATIK ARITIMI ve BERTARAFI | S | 2 | 2 | 0 | | 3 | | 6 |
| CEV6225 | | TEHLİKELİ ATIKLARIN STABİLİZASYONU ve SOLİDİFİKASYONU | | | S | | 3 | 0 | 0 | 3 | 6 | CEV6242 | | HAVA KİRLİLİĞİ METEOROLOJİSİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV6227 | | AKTİF ÇAMUR SİSTEMLERİNDE BİLGİSAYAR DESTEKLİ MODEL YAKLAŞIMLARI | | | S | | 2 | 2 | 0 | 3 | 6 | CEV6244 | | AKTİF ÇAMUR PROSESİNİN DİZAYNI ve İŞLETİMİNDE RESPİROMETRİK METODUN KULLANILMASI | S | 2 | 0 | 2 | | 3 | | 6 |
| CEV6229 | | TOKSİK ORGANİK BİLEŞİKLERİN BİYOLOJİK ARITIMI | | | S | | 3 | 0 | 0 | 3 | 6 | CEV6246 | | ARITMA TESİSLERİ İŞLETİLMESİ | S | 2 | 0 | 2 | | 3 | | 6 |
| CEV6231 | | İLERİ ARITMA TEKNİKLERİ | | | S | | 2 | 2 | 0 | 3 | 6 | CEV6248 | | ATIKSU ARITMA TESİSİ BİYOKİNETİK TEKNİKLERİ | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV6233 | | ARITMA ÇAMURLARININ ARAZİYE UYGULANMASI | | | S | | 3 | 0 | 0 | 3 | 6 | CEV6250 | | İLERİ OKSİDASYON ve MEMBRAN TEKNOLOJİLERİYLE  SU ve ATIKSU ARITIMI | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV6303 | | BİYOKÜTLE ENERJİSİ TEKNOLOJİLERİ | | | S | | 3 | 0 | 0 | 3 | 6 | CEV6252 | | ATIK ve ATIK SU ARITIMI İÇİN BİYOTEKNOLOJİK PROSESLER | S | 3 | 0 | 0 | | 3 | | 6 |
| CEV6305 | | TEHLİKELİ HAVA KİRLETİCİLER ve RİSK ANALİZİ | | | S | | 3 | 0 | 0 | 3 | 6 | CEV6254 | | AKTİF ÇAMUR SİSTEMLERİNİN MODELLENMESİ | S | 3 | 0 | 0 | | 3 | | 6 |
|  | |  | | |  | |  |  |  |  |  | CEV6256 | | İKLİM DEĞİŞİKLİĞİ ETKİLERİ ve ADAPTASYON | S | 3 | 0 | 0 | | 3 | | 6 |
|  | |  | | |  | |  |  |  |  |  |  | |  |  |  |  |  | |  | |  |
|  | |  | | |  | |  |  |  |  |  |  | |  |  |  |  |  | |  | |  |
| **Not:** \*: Öğrenci isterse, danışmanının onayı ile her yarıyıl için en fazla 1 (bir) seçmeli dersini aynı AKTS değerinde olmak şartıyla alan dışından da alabilir. | | | | | | | | | | | | | | | | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ UNIVERSITY**  **INSTITUTE OF NATURAL AND APPLIED SCIENCES**  **2018-2019 ACADEMIC YEAR COURSE PLAN** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | ENVIRONMENTAL ENGINEERING | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **BİLİM DALI / PROGRAMI** | | | 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** |
| CEV6191 | PHD THESIS CONSULTING I | | C | | | 0 | | 1 | | 0 | 0 | 1 | CEV6192 | | | PHD THESIS CONSULTING II | | C | | 0 | | 1 | | 0 | | 0 | | | | 1 |
| CEV6181 | SPECIAL TOPICS IN PHD THESIS I | | C | | | 4 | | 0 | | 0 | 0 | 5 | CEV6182 | | | SPECIAL TOPICS IN PHD THESIS II | | C | | 4 | | 0 | | 0 | | 0 | | | | 5 |
| CEV5 | ELECTIVE COURSE | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5 | | | ELECTIVE COURSE | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5 | ELECTIVE COURSE | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5 | | | ELECTIVE COURSE | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5 | ELECTIVE COURSE | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5 | | | ELECTIVE COURSE | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5 | ELECTIVE COURSE | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5 | | | ELECTIVE COURSE | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| **Total Credits** | | | | | | | | | | | **12** | **30** | **Total Credits** | | | | | | | | | | | | | **12** | | | | **30** |
| **THESIS STAGE** | **I. TERM / FALL** | | | | | | | | | | | | | **IV. TERM / SPRING** | | | | | | | | | | | | | | | | | |
| CEV6183 | SPECIAL TOPICS IN PHD THESIS III | | | C | | 4 | | 0 | | 0 | 0 | 5 | CEV6174 | | | SEMINAR | | C | | 0 | | 2 | | 0 | | 0 | | | | 4 |
| CEV6193 | PHD THESIS CONSULTING III | | | C | | 0 | | 1 | | 0 | 0 | 1 | CEV6194 | | | PHD THESIS CONSULTING IV | | C | | 0 | | 1 | | 0 | | 0 | | | | 1 |
| CEV6301 | ADVANCED ENVIRONMENTAL ENGINEERING CHEMISTRY II | | | C | | 3 | | 0 | | 0 | 3 | 6 | FEN6000 | | | RESEARCH TECHNIQUES and PUBLICATION ETHICS | | C | | 2 | | 0 | | 0 | | 2 | | | | 2 |
|  |  | | |  | |  | |  | |  |  |  | CEV6184 | | | SPECIAL TOPICS IN PHD THESIS IV | | C | | 4 | | 0 | | 0 | | 0 | | | | 5 |
| CEV6 | ELECTIVE COURSE | | | E | |  | |  | |  |  | 6 | CEV6 | | | ELECTIVE COURSE | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV6 | ELECTIVE COURSE | | | E | |  | |  | |  |  | 6 | CEV6 | | | ELECTIVE COURSE | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
|  | ELECTIVE COURSE \* | | | E | |  | |  | |  |  | 6 | CEV6 | | | ELECTIVE COURSE \* | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
|  |  | | |  | |  | |  | |  |  |  |  | | |  | |  | |  | |  | |  | |  | | | |  |
|  |  | | |  | |  | |  | |  |  |  |  | | |  | |  | |  | |  | |  | |  | | | |  |
| **Total Credits** | | | | | | | | | | | **12** | **30** | **Total Credits** | | | | | | | | | | | | | **11** | | | | **30** |
| **V. TERM / FALL** | | | | | | | | | | | | | **VI. TERM / SPRING** | | | | | | | | | | | | | | | | | |
| YET6177 | PHD PROFICIENCY | | | C | | 0 | | 0 | | 0 | 0 | 10 | CEV6186 | | SPECIAL TOPICS IN PHD THESIS VI | | | C | | 4 | | 0 | | 0 | | 0 | | | | 5 |
| CEV6185 | SPECIAL TOPICS IN PHD THESIS V | | | C | | 4 | | 0 | | 0 | 0 | 5 | CEV6196 | | PHD THESIS CONSULTING VI | | | C | | 0 | | 1 | | 0 | | 0 | | | | 25 |
| CEV6195 | PHD THESIS CONSULTING V | | | C | | 0 | | 1 | | 0 | 0 | 15 |  | |  | | |  | |  | |  | |  | |  | | | |  |
| **Total Credits** | | | | | | | | | | | **0** | **30** | **Total Credits** | | | | | | | | | | | | | **0** | | | | **30** |
| **VII. TERM / FALL** | | | | | | | | | | | | | **VIII. TERM / SPRING** | | | | | | | | | | | | | | | | | |
| CEV6187 | SPECIAL TOPICS IN PHD THESIS VII | | | C | 4 | | 0 | | 0 | | 0 | 5 | CEV6188 | SPECIAL TOPICS IN PHD THESIS VIII | | | C | | 4 | | 0 | | 0 | | | | 0 | 5 | | |
| CEV6197 | PHD THESIS CONSULTING VII | | | C | 0 | | 1 | | 0 | | 0 | 25 | CEV6198 | PHD THESIS CONSULTING VIII | | | C | | 0 | | 1 | | 0 | | | | 0 | 25 | | |
| **Total Credits** | | | | | | | | | | | **0** | **30** | **Total Credits** | | | | | | | | | | | | | | **0** | **30** | | |
| **IX. TERM / FALL** | | | | | | | | | | | | | **X. TERM / SPRING** | | | | | | | | | | | | | | | | | |
| CEV6189 | SPECIAL TOPICS IN PHD THESIS IX | | | C | 4 | | | 0 | | 0 | 0 | 7 | CEV6190 | | SPECIAL TOPICS IN PHD THESIS X | | | C | | 4 | | 0 | | 0 | 0 | | | | 5 | |
| CEV6199 | PHD THESIS CONSULTING IX | | | C | 0 | | | 1 | | 0 | 0 | 23 | CEV6200 | | PHD THESIS CONSULTING X | | | C | | 0 | | 1 | | 0 | 0 | | | | 25 | |
| **Total Credits** | | | | | | | | | | | **0** | **30** | **Total Credits** | | | | | | | | | | | | **0** | | | | **30** | |
| **TOTAL CREDITS: 47 - TOTAL ECTS: 300** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Not:** \*: The student have the option of choosing one (1) out of field elective course with the same ECTS in each semester providing supervisor’s approval. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ UNIVERSITY**  **INSTITUTE OF NATURAL AND APPLIED SCIENCES**  **2018-2019 ACADEMIC YEAR COURSE PLAN (ELECTIVE COURSES)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | ENVIRONMENTAL ENGINEERING | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **BİLİM DALI / PROGRAMI** | | | 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** |
| CEV5121 | ENVIRONMENTAL MANAGEMENT | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5102 | | | ENVİRONMENTAL INSTRUMENTAL ANALYSIS | | E | | 2 | | 0 | | 2 | | 3 | | | | 6 |
| CEV5147 | MICROBIAL QUALITY OF DRINKING WATER AND  CONTROL OF DISINFECTION BY-PRODUCTS | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5122 | | | WATER QUALITY MANAGEMENT | | E | | 2 | | 2 | | 0 | | 3 | | | | 6 |
| CEV5243 | INDUSTRIAL AIR POLLUTION | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5148 | | | RECYCLE AND REUSE TECHNIQUES ON INDUSTRIAL WASTEWATERS | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5247 | BASICS OF ENVIRONMENTAL TECHNOLOGY | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5222 | | | INDUSTRIAL WASTE MANAGEMENT | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5249 | DESIGN CRITERIA FOR WASTEWATER TREATMENT PLANTS | | E | | | 2 | | 2 | | 0 | 3 | 6 | CEV5224 | | | PRINCIPLES OF BIOLOGICAL TREATMENT | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5251 | STACK GAS MEASUREMENT AND ANALYSIS | | E | | | 2 | | 0 | | 2 | 3 | 6 | CEV5226 | | | WASTEWATER ENGINEERING | | E | | 2 | | 2 | | 0 | | 3 | | | | 6 |
| CEV5253 | MEASUREMENT AND MONITORING OF AMBIENT AIR | | E | | | 2 | | 0 | | 2 | 3 | 6 | CEV5228 | | | ION EXCHANGE AND ADSORPTION TECHNOLOGY IN WASTEWATER TREATMENT | | E | | 2 | | 2 | | 0 | | 3 | | | | 6 |
| CEV5255 | WETLAND SYSTEMS IN WASTEWATER TREATMENT | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5230 | | | THE DESIGN OF LANDFILL AREAS | | E | | 2 | | 2 | | 0 | | 3 | | | | 6 |
| CEV5257 | ENVIRONMENTAL SAFETY FOR INDUSTRIES | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5232 | | | AIR POLLUTION ENGINEERING | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5263 | RENEWABLE ENERGY AND ENVIRONMENT | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5234 | | | ATMOSPHERIC TRANSPORT AND DEPOSITION | | E | | 2 | | 0 | | 2 | | 3 | | | | 6 |
| CEV5265 | CLEANER PRODUCTION PRINCIPLES | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5236 | | | INSTRUMENTATION AND AUTOMATION OF WATER AND WASTEWATER TREATMENT PLANTS | | E | | 2 | | 2 | | 0 | | 3 | | | | 6 |
| CEV5267 | WATER AND WASTEWATER MICROBIOLOGY | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5238 | | | BIOINDICATOR ORGANISMS IN DETERMINATION OF WATER QUALITY | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5269 | ANAEROBIC TREATMENT OF WASTES | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5242 | | | DISINFECTION OF WATER AND WASTEWATER | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5271 | GREENHOUSE GASES CALCULATION METHODS AND CLIMATE CHANGE | | E | | | 2 | | 2 | | 0 | 3 | 6 | CEV5244 | | | MICROBIAL TECHNIQUES IN ENVIRONMENTAL ENGINEERING | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5273 | NANOTECHNOLOGY IN ENVIRONMENTAL ENGINEERING | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5246 | | | ADVANCED ATMOSPHERIC CHEMISTRY | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5275 | INTEGRATED WASTE MANAGEMENT TECHNOLOGIES | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5248 | | | ENVIRONMENTAL POLLUTION AND PUBLIC HEALTH | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5277 | WASTE DISPOSAL AND LEGAL FRAMEWORK | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5250 | | | ON-SITE WASTEWATER TREATMENT | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5279 | FORMATION AND TREATMENT OF LANDFILL LEACHATE | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5306 | | | ENERGY EFFICIENCY IN ENVIRONMENTAL POLLUTION AND CONTROL | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5281 | BIOLOGICAL TREATMENT OF INDUSTRIAL WASTEWATERS | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5308 | | | ENVİRONMENTAL TOXICOLOGY | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5303 | COMPOSTING TECHNOLOGY | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5310 | | | HYDROLOGY OF RIVER CATCHMENTS AND FLOOD-DROUGHT MODELLING | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5305 | PRODUCTION OF BIOFUELS | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5312 | | | ADVANCED PHYSİCO-CHEMİCAL TREATMENT PROCESSES | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5307 | SEDIMENT POLLUTION AND TRANSPORT | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5314 | | | WASTEWATER SLUDGE AND SOİL ANALYSİS | | E | | 2 | | 0 | | 2 | | 3 | | | | 6 |
| CEV5309 | PRINCIPLES OF ENVIRONMENTAL POLLUTION | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5316 | | | DEWATERİNG OF TREATMENT SLUDGES | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV5311 | SOIL POLLUTION AND CONTROL | | E | | | 3 | | 0 | | 0 | 3 | 6 | CEV5318 | | | ORGANIC MICROPOLLUTANTS AND CONTROL | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| **COURSE STAGE** | **III. TERM / FALL** | | | | | | | | | | | | | **IV. TERM / SPRING** | | | | | | | | | | | | | | | | | |
| CEV6101 | WATER CHEMISTRY | | | E | | 2 | | 0 | | 2 | 3 | 6 | CEV6124 | | | SURFACE WATER QUALITY MODELLING | | E | | 2 | | 2 | | 0 | | 3 | | | | 6 |
| CEV6123 | LAKE WATER QUALITY MODELLİNG | | | E | | 2 | | 2 | | 0 | 3 | 6 | CEV6208 | | | DISPOSAL TECHNİQUES OF DOMESTIC AND INDUSTRIAL SLUDGE | | E | | 2 | | 2 | | 0 | | 3 | | | | 6 |
| CEV6221 | HAZARDOUS WASTES | | | E | | 2 | | 2 | | 0 | 3 | 6 | CEV6224 | | | TREATMENT AND DISPOSAL OF INDUSTRIAL WASTES | | E | | 2 | | 2 | | 0 | | 3 | | | | 6 |
| CEV6225 | STABILIZATION AND SOLIDIFICATION OF HAZARDOUS WASTES | | | E | | 3 | | 0 | | 0 | 3 | 6 | CEV6242 | | | AIR POLLUTION METEOROLOGY | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV6227 | COMPUTER SUPPORTED MODEL APPROACHES IN ACTIVATED SLUDGE SYSTEMS | | | E | | 2 | | 2 | | 0 | 3 | 6 | CEV6244 | | | USE OF RESPIROMETRIC METHOD IN DESIGN AND OPERATION OF ACTIVATED SLUDGE PROCESS | | E | | 2 | | 0 | | 2 | | 3 | | | | 6 |
| CEV6229 | BIOLOGICAL TREATMENT OF TOXIC ORGANIC COMPOUNDS | | | E | | 3 | | 0 | | 0 | 3 | 6 | CEV6246 | | | OPERATION OF TREATMENT PLANTS | | E | | 2 | | 0 | | 2 | | 3 | | | | 6 |
| CEV6231 | ADVANCED TREATMENT TECHNIQUES | | | E | | 2 | | 2 | | 0 | 3 | 6 | CEV6248 | | | BIOKINETICS TECHNIQUES OF WASTEWATER TREATMENT PLANTS | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV6233 | LAND APPLICATION OF WASTEWATER SLUDGES | | | E | | 3 | | 0 | | 0 | 3 | 6 | CEV6250 | | | WATER AND WASTEWATER TREATMENT WITH ADVANCED OXIDATION AND MEMBRANE TECHNOLOGIES | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV6303 | BIOMASS ENERGY TECHNOLOGIES | | | E | | 3 | | 0 | | 0 | 3 | 6 | CEV6252 | | | WASTE AND WASTEWATER TREATMENT FOR BIOTECHNOLOGY PROCESSES | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
| CEV6305 | HAZARDOUS AIR POLLUTANTS AND RISK ANALYSIS | | | E | | 3 | | 0 | | 0 | 3 | 6 | CEV6254 | | | MODELLING OF ACTIVATED SLUDGE SYSTEMS | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
|  |  | | |  | |  | |  | |  |  |  | CEV6256 | | | CLIMATE CHANGE IMPACTS AND ADAPTATION | | E | | 3 | | 0 | | 0 | | 3 | | | | 6 |
|  |  | | |  | |  | |  | |  |  |  |  | | |  | |  | |  | |  | |  | |  | | | |  |

**Not:** \*: The student have the option of choosing one (1) out of field elective course with the same ECTS in each semester providing supervisor’s approval.

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| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2018-2019 EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | ÇEVRE MÜHENDİSLİĞİ | | | | | | | | | | | | | | |
| **BİLİM DALI / PROGRAMI** | | | / Tezsiz 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** |
| CEV5301 | KİMYASALLARIN ÇEVRESEL HAREKETİ | | Z | 3 | 0 | 0 | 3 | 6 | CEV5302 | ÇEVRE MÜHENDİSLERİ İÇİN İSTATİSTİK | Z | 3 | 0 | 0 | 3 | 6 |
|  |  | |  |  |  |  |  |  | CEV5304 | İLERİ ÇEVRE MÜHENDİSLİĞİ KİMYASI I | Z | 3 | 0 | 0 | 3 | 6 |
|  | SEÇMELİ DERS | | S |  |  |  | 3 | 6 |  | SEÇMELİ DERS | S |  |  |  | 3 | 6 |
|  | SEÇMELİ DERS | | S |  |  |  | 3 | 6 |  | SEÇMELİ DERS | S |  |  |  | 3 | 6 |
|  | SEÇMELİ DERS | | S |  |  |  | 3 | 6 |  | SEÇMELİ DERS | S |  |  |  | 3 | 6 |
|  | SEÇMELİ DERS | | S |  |  |  | 3 | 6 |  |  |  |  |  |  |  |  |
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| **Toplam Kredi** | | | | | | | **15** | **30** | **Toplam Kredi** | | | | | | **15** | **30** |
| **TEZ AŞAMASI** | **III. YARIYIL / GÜZ** | | | | | | | | | **IV. YARIYIL / BAHAR (\*)** | | | | | | | |
| CEV5001 | DÖNEM PROJESİ | | Z | 0 | 2 | 0 | 0 | 24 |  |  |  |  |  |  |  |  |
|  | SEÇMELİ DERS | | S |  |  |  | 3 | 6 |  |  |  |  |  |  |  |  |
| **Toplam Kredi** | | | | | | | **3** | **30** | **Toplam Kredi** | | | | | |  |  |
| **TOPLAM KREDİ: 33 - TOPLAM AKTS: 90** | | | | | | | | | | | | | | | | | |
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| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ ÜNİVERSİTESİ**  **FEN BİLİMLERİ ENSTİTÜSÜ**  **2018-2019 EĞİTİM ÖĞRETİM YILI DERS PLANLARI** | | | | | | | | | | | | | | | | | |
| **ANABİLİM DALI** | | | ÇEVRE MÜHENDİSLİĞİ | | | | | | | | | | | | | | |
| **BİLİM DALI / PROGRAMI** | | | / Tezsiz Yüksek Lisans Programı | | | | | | | | | | | | | | |
| **DERS AŞAMASI** | **I-III YARIYIL SEÇMELİ/ GÜZ** | | | | | | | | | **II. YARIYIL SEÇMELİ / BAHAR** | | | | | | | |
| **Kodu** | **Dersin Adı** | | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** | **Kodu** | **Dersin Adı** | **Türü** | **T** | **U** | **L** | **Kredi** | **AKTS** |
| CEV5121 | ÇEVRE YÖNETİMİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5102 | ÇEVRESEL ENSTRÜMENTAL ANALİZ TEKNİĞİ | S | 2 | 0 | 2 | 3 | 6 |
| CEV5243 | ENDÜSTRİYEL HAVA KİRLİLİĞİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5122 | SU KALİTESİ YÖNETİMİ | S | 2 | 2 | 0 | 3 | 6 |
| CEV5247 | ÇEVRE TEKNOLOJİSİNİN TEMELLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5148 | END.ATIK. GERİ KAZ.veTEKRAR KULLANIM TEKNİKLERİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5249 | ATIKSU ARITMA TESİSİ BOYUTLANDIRMA KRİTERLERİ | | S | 2 | 2 | 0 | 3 | 6 | CEV5222 | ENDÜSTRİYEL ATIK YÖNETİMİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5251 | BACAGAZI ÖLÇÜM ve ANALİZİ | | S | 2 | 0 | 2 | 3 | 6 | CEV5226 | ATIKSU MÜHENDİSLİĞİ | S | 2 | 2 | 0 | 3 | 6 |
| CEV5253 | DIŞ HAVA KALİTESİ ÖLÇÜM ve İZLENMESİ | | S | 2 | 0 | 2 | 3 | 6 | CEV5228 | ATIKSU ARITIMINDA İYON DEĞİŞİMİ ve ADSORPSİYON TEKNOLOJİSİ | S | 2 | 2 | 0 | 3 | 6 |
| CEV5255 | ATIKSU ARITIMINDA SULAK ALAN SİSTEMLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5230 | DÜZENLİ KATI ATIK DEPONİ ALANLARININ OLUŞTURULMASI | S | 2 | 2 | 0 | 3 | 6 |
| CEV5257 | İŞYERİNDE ÇEVRE GÜVENLİĞİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5232 | HAVA KİRLİLİĞİ MÜHENDİSLİĞİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5259 | ÇEVRE MÜHENDİSLİĞİNDE TEMEL PROSESLER I | | S | 3 | 0 | 0 | 3 | 6 | CEV5234 | ATMOSFERİK TAŞINIM ve ÇÖKELME | S | 2 | 0 | 2 | 3 | 6 |
| CEV5261 | ÇEVRE BİYOTEKNOLOJİSİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5236 | SU ve ATIKSU ARITMA TESİSLERİNİN ENSTRÜMENTASYONU VE KONTROLÜ | S | 2 | 2 | 0 | 3 | 6 |
| CEV5263 | YENİLENEBİLİR ENERJİ ve ÇEVRE | | S | 3 | 0 | 0 | 3 | 6 | CEV5238 | SU KALİTESİNİN BELİRLENMESİNDE BİYOİNDİKATÖR CANLILAR | S | 3 | 0 | 0 | 3 | 6 |
| CEV5265 | TEMİZ ÜRETİM TEKNİKLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5240 | ÇEVRE MÜHENDİSLİĞİNDE TEMEL PROSESLER II | S | 3 | 0 | 0 | 3 | 6 |
| CEV5269 | ATIKLARIN ANAEROBİK ARITIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV5244 | ÇEVRE MÜHENDİSLİĞİ İÇİN BİYOMOLEKÜLER TEKNİKLER | S | 3 | 0 | 0 | 3 | 6 |
| CEV5271 | SERA GAZI HESAPLAMA YÖNTEMLERİ ve İKLİM DEĞİŞİKLİĞİ | | S | 2 | 2 | 0 | 3 | 6 | CEV5246 | İLERİ ATMOSFER KİMYASI | S | 3 | 0 | 0 | 3 | 6 |
| CEV5273 | ÇEVRE MÜHENDİSLİĞİNDE NANOTEKNOLOJİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5248 | ÇEVRE KİRLİLİĞİ ve HALK SAĞLIĞI | S | 3 | 0 | 0 | 3 | 6 |
| CEV5275 | ENTEGRE ATIK YÖNETİMİ TEKNOLOJİLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5250 | ARAZİDE ARITMA | S | 3 | 0 | 0 | 3 | 6 |
| CEV5277 | ATIK BERTARAFI ve YASAL MEVZUAT | | S | 3 | 0 | 0 | 3 | 6 | CEV5306 | ÇEVRE KİRLİLİĞİ VE KONTROLÜNDE ENERJİ VERİMLİLİĞİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5279 | SIZINTI SULARININ OLUŞUMU ve ARITIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV5308 | ÇEVRE TOKSİKOLOJİSİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5281 | ENDÜSTRİYEL ATIKSULARIN BİYOLOJİK ARITIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV5310 | NEHİR HAVZALARI HİDROLOJİSİ VE TAŞKIN – KURAKLIK MODELLEMESİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5303 | KOMPOST TEKNOLOJİSİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5312 | İLERİ FİZİKO – KİMYASAL ARITMA PROSESLERİ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5305 | BİYOYAKIT ÜRETİMİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5314 | ARITMA ÇAMURU VE TOPRAK ANALİZLERİ | S | 2 | 0 | 2 | 3 | 6 |
| CEV5307 | SEDİMAN KİRLİLİĞİ VE TAŞINIMI | | S | 3 | 0 | 0 | 3 | 6 | CEV5316 | ARITMA ÇAMURLARININ SUSUZLAŞTIRILMASI | S | 3 | 0 | 0 | 3 | 6 |
| CEV5309 | ÇEVRE KİRLİLİĞİNİN TEMELLERİ | | S | 3 | 0 | 0 | 3 | 6 | CEV5318 | ORGANİK MİKROKİRLETİCİLER VE KONTROLÜ | S | 3 | 0 | 0 | 3 | 6 |
| CEV5311 | TOPRAK KİRLİLİĞİ VE KONTROLÜ | | S | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  |  |  |
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| **DEPARTMENT OF** | | | ENVIRONMENTAL ENGINEERING | | | | | | | | | | | | | | |
| **DEPARTMENT / PROGRAM** | | | / Master'sDegree Program(WithoutThesis ) | | | | | | | | | | | | | | |
| **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** |
| CEV5301 | ENVIRONMENTAL MOVEMENT OF CHEMICALS | | C | 3 | 0 | 0 | 3 | 6 | CEV5302 | STATISTICS FOR ENVIRONMENTAL ENGINEERS | C | 3 | 0 | 0 | 3 | 6 |
|  |  | |  |  |  |  |  |  | CEV5303 | ADVANCED ENVIRONMENTAL ENGINEERING CHEMISTRY I | C | 3 | 0 | 0 | 3 | 6 |
|  | ELECTIVE COURSE | | E |  |  |  | 3 | 6 |  | ELECTIVE COURSE | E |  |  |  | 3 | 6 |
|  | ELECTIVE COURSE | | E |  |  |  | 3 | 6 |  | ELECTIVE COURSE | E |  |  |  | 3 | 6 |
|  | ELECTIVE COURSE | | E |  |  |  | 3 | 6 |  | ELECTIVE COURSE | E |  |  |  | 3 | 6 |
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| **Total Credits** | | | | | | | **15** | **30** | **Total Credits** | | | | | | **15** | **30** |
| **STAGE THESIS** | **III. TERM / FALL** | | | | | | | | | **IV. TERM / SPRING (\*)** | | | | | | | |
| CEV5001 | SEMESTER PROJECT | | C | 0 | 2 | 0 | 0 | 24 |  |  |  |  |  |  |  |  |
|  | ELECTIVE COURSE | | E |  |  |  | 3 | 6 |  |  |  |  |  |  |  |  |
| **Total Credits** | | | | | | | **3** | **30** | **Total Credits** | | | | | |  |  |
| **TOTAL CREDITS: 33 - TOTAL ECTS: 90** | | | | | | | | | | | | | | | | | |
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| https://www.uludag.edu.tr/logolar/uurenksiz.png**BURSA ULUDAĞ UNIVERSITY**  **INSTITUTE OF SCIENCE**  **2018-2019 ACADEMIC YEAR COURSE PLAN** | | | | | | | | | | | | | | | | | |
| **DEPARTMENT OF** | | | ENVIRONMENTAL ENGINEERING | | | | | | | | | | | | | | |
| **DEPARTMENT / PROGRAM** | | | / Master's Degree Program (WithoutThesis ) | | | | | | | | | | | | | | |
| **COURSE STAGE** | **I.III TERM / FALL** | | | | | | | | | **II. TERM / SPRING** | | | | | | | |
| **Code** | **Course Title** | | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** | **Code** | **Course Title** | **Type** | **T** | **U** | **L** | **Credit** | **ECTS** |
| CEV5121 | ENVIRONMENTAL MANAGEMENT | | E | 3 | 0 | 0 | 3 | 6 | CEV5102 | ENVIRONMENTAL INSTRUMENTAL ANALYSIS | E | 2 | 0 | 2 | 3 | 6 |
| CEV5243 | INDUSTRIAL AIR POLLUTION | | E | 3 | 0 | 0 | 3 | 6 | CEV5122 | WATER QUALITY MANAGEMENT | E | 2 | 2 | 0 | 3 | 6 |
| CEV5247 | BASICS OF ENVIRONMENTAL TECHNOLOGY | | E | 3 | 0 | 0 | 3 | 6 | CEV5148 | RECYCLE AND REUSE TECHNIQUES ON INDUSTRIAL WASTEWATERS | E | 3 | 0 | 0 | 3 | 6 |
| CEV5249 | DESIGN CRITERIA FOR WASTEWATER TREATMENT PLANTS | | E | 2 | 2 | 0 | 3 | 6 | CEV5222 | INDUSTRIAL WASTE MANAGEMENT | E | 3 | 0 | 0 | 3 | 6 |
| CEV5251 | STACK GAS MEASUREMENT AND ANALYSIS | | E | 2 | 0 | 2 | 3 | 6 | CEV5226 | WASTEWATER ENGINEERING | E | 2 | 2 | 0 | 3 | 6 |
| CEV5253 | MEASUREMENT AND MONITORING OF AMBIENT AIR | | E | 2 | 0 | 2 | 3 | 6 | CEV5228 | ION EXCHANGE AND ADSORPTION TECHNOLOGY IN WASTEWATER TREATMENT | E | 2 | 2 | 0 | 3 | 6 |
| CEV5255 | WETLAND SYSTEMS IN WASTEWATER TREATMENT | | E | 3 | 0 | 0 | 3 | 6 | CEV5230 | THE DESIGN OF LANDFILL AREAS | E | 2 | 2 | 0 | 3 | 6 |
| CEV5257 | ENVIRONMENTAL SAFETY FOR INDUSTRIES | | E | 3 | 0 | 0 | 3 | 6 | CEV5232 | AIR POLLUTION ENGINEERING | E | 3 | 0 | 0 | 3 | 6 |
| CEV5259 | BASIC PROCESSES IN ENVIRONMENTAL ENGINEERING I | | E | 3 | 0 | 0 | 3 | 6 | CEV5234 | ATMOSPHERIC TRANSPORT AND DEPOSITION | E | 2 | 0 | 2 | 3 | 6 |
| CEV5261 | ENVIRONMENTAL BIOTECHNOLOGY | | E | 3 | 0 | 0 | 3 | 6 | CEV5236 | INSTRUMENTATION AND AUTOMATION OF WATER AND WASTEWATER TREATMENT PLANTS | E | 2 | 2 | 0 | 3 | 6 |
| CEV5263 | RENEWABLE ENERGY AND ENVIRONMENT | | E | 3 | 0 | 0 | 3 | 6 | CEV5238 | BIOINDICATOR ORGANISMS IN DETERMİNATION OF WATER QUALITY | E | 3 | 0 | 0 | 3 | 6 |
| CEV5265 | CLEANER PRODUCTION PRINCIPLES | | E | 3 | 0 | 0 | 3 | 6 | CEV5240 | BASIC PROCESSES IN ENVIRONMENTAL ENGINEERING II | E | 3 | 0 | 0 | 3 | 6 |
| CEV5269 | ANAEROBIC TREATMENT OF WASTES | | E | 3 | 0 | 0 | 3 | 6 | CEV5244 | MICROBIAL TECHNIQUES IN ENVIRONMENTAL ENGINEERING | E | 3 | 0 | 0 | 3 | 6 |
| CEV5271 | GREENHOUSE GASES CALCULATION METHODS AND CLIMATE CHANGE | | E | 2 | 2 | 0 | 3 | 6 | CEV5246 | ADVANCED ATMOSPHERIC CHEMISTRY | E | 3 | 0 | 0 | 3 | 6 |
| CEV5273 | NANOTECHNOLOGY IN ENVIRONMENTAL ENGINEERING | | E | 3 | 0 | 0 | 3 | 6 | CEV5248 | ENVIRONMENTAL POLLUTION AND PUBLIC HEALTH | E | 3 | 0 | 0 | 3 | 6 |
| CEV5275 | INTEGRATED WASTE MANAGEMENT TECHNOLOGIES | | E | 3 | 0 | 0 | 3 | 6 | CEV5250 | ON-SITE WASTEWATER TREATMENT | E | 3 | 0 | 0 | 3 | 6 |
| CEV5277 | WASTE DISPOSAL AND LEGAL FRAMEWORK | | E | 3 | 0 | 0 | 3 | 6 | CEV5306 | ENERGY EFFICIENCY IN ENVIRONMENTAL POLLUTION AND CONTROL | E | 3 | 0 | 0 | 3 | 6 |
| CEV5279 | FORMATION AND TREATMENT OF LANDFILL LEACHATE | | E | 3 | 0 | 0 | 3 | 6 | CEV5308 | ENVİRONMENTAL TOXICOLOGY | E | 3 | 0 | 0 | 3 | 6 |
| CEV5281 | BIOLOGICAL TREATMENT OF INDUSTRIAL WASTEWATERS | | E | 3 | 0 | 0 | 3 | 6 | CEV5310 | HYDROLOGY OF RIVER CATCHMENTS AND FLOOD-DROUGHT MODELLING | E | 3 | 0 | 0 | 3 | 6 |
| CEV5303 | COMPOSTING TECHNOLOGY | | E | 3 | 0 | 0 | 3 | 6 | CEV5312 | ADVANCED PHYSİCO-CHEMİCAL TREATMENT PROCESSES | E | 3 | 0 | 0 | 3 | 6 |
| CEV5305 | PRODUCTION OF BIOFUELS | | E | 3 | 0 | 0 | 3 | 6 | CEV5314 | WASTEWATER SLUDGE AND SOİL ANALYSİS | E | 2 | 0 | 2 | 3 | 6 |
| CEV5307 | SEDIMENT POLLUTION AND TRANSPORT | | E | 3 | 0 | 0 | 3 | 6 | CEV5316 | DEWATERİNG OF TREATMENT SLUDGES | E | 3 | 0 | 0 | 3 | 6 |
| CEV5309 | PRINCIPLES OF ENVIRONMENTAL POLLUTION | | E | 3 | 0 | 0 | 3 | 6 | CEV5318 | ORGANIC MICROPOLLUTANTS AND CONTROL | E | 3 | 0 | 0 | 3 | 6 |
| CEV5311 | SOIL POLLUTIONAND CONTROL | | E | 3 | 0 | 0 | 3 | 6 |  |  |  |  |  |  |  |  |