

| ELECTIVES (SEÇMELİ) | TERM | TRACK AREAS (UZMANLIK ALANLARI) | | | |
|-------------------------|---------------------------------|---|--|--|---|
| | | Product and Process Engineering(Ürün ve Süreç Mühendisliği) | Biotechnology ve Biyoproses Engineering (Biyoteknoloji ve Biyoproses Mühendisliği) | Environmental and Energy Technologies(Çevre ve Enerji Teknolojileri) | Materials and Surface Science(Malzeme ve Yüzey Bilimi) |
| Restricted (Sınırlı) | 3 rd or | CHE 232 Chemical Processing of Petroleum | CHE 213 Microbiology | <u>Energy</u> CHE 240 Combustion Science | <u>Environmental</u> CHE 226 Introduction to Environmental Engineering |
| | 4 th | | CHE 223 Molecular and Cell Biology | CHE 230 Potential Sources of Energy | CHE 219 Environmental Chemistry CHE 234 Polymer Chemistry |
| Technical (Teknik) | 7 th 8 th | CHE 360 Molecular Aspects of Chemical Engineering, | CHE 366 Industrial Microbiology | CHE 338 Photovoltaics | CHE 336 Pollution Prevention |
| | | CHE 362 Interfacial Transport Processes and Rheology | CHE 368 Cell Culture Techniques | CHE 346 Energy Management | CHE 356 Industrial Water Treatment Technologies |
| | | CHE 364 Phase Equilibria | CHE 370 Molecular Engineering Aspects of Biotechnology | CHE 348 Energy Conservation and Conversion | CHE 358 Solid Waste Disposal |
| | | CHE 384 Global Sustainability | CHE 372 Physical Aspects of Biological Systems | CHE 350 Introduction to Process Integration | CHE 384 Global Sustainability |
| | | CHE 423 Petrochemical Processing | CHE 384 Global Sustainability | CHE 352 Energy Technology | CHE 435 Fundamentals of Air Pollution and Control |
| | | CHE 424 Biomass Convesion to Chemicals and Fuels** | CHE 425 Biochemical Engineering | CHE 354 Combustion Engineering | CHE 442 Water Pollution Control Process |
| | | CHE 446 Drying | CHE 455 Process Design for Biotechnology | CHE 384 Global Sustainability | CHE 444 Environment and Technology |
| | | CHE 448 Novel Separation Techniques | CHE 457 Metabolic and Cell Engineering | CHE 424 Biomass Conversion to Chemicals and Fuels** | CHE 445 Industrial and Hazardous Waste Treatment |
| | | CHE 449 Membrane Processes and Separation of Mixtures | CHE 459 Special Topics in Biotechnology | CHE 427 Flames | CHE 450 Industrial and Hazardous Waste Treatment |
| | | CHE 450 Gas Purification Technology(FO) | CHE 462 Enzyme Technology | CHE 429 Radioactive Transfer | |
| | | CHE 451 Rheology of Non-newtonion Fluids | CHE 464 Separation and Purification Processes for Biochemical Products | CHE 431 Sustainable Energy | |
| | | CHE 452 Heterogeneous Catalysis and Catalytic Processes | | CHE 433 Solar Energy Technology | |
| | | CHE 453 Multicomponent Separation | | | |
| | | CHE 454 Reactor Design | | | |
| | | CHE 456 Heat Transfer Equipment | | | |
| | | CHE 458 Industrial Organization and Management | | | |
| | | CHE 460 Catalytic Reaction | | | |
| | | CHE 463 Adsorption | | | |

*: En az bir dersi diğer alandan seçmelidir. **: Farklı iki alana da uygun olan dersler.

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| Graduate Course | | CHE 505 Transport Phenomena CHE 518 Adsorption** CHE 520 Material Concepts in Catalysis** CHE 527 Nonlinear Phenomena CHE 531 Characterization and Processing of Particles CHE 533 Mass Transport in Environmental Engineering** CHE 534 Advanced Mass Transfer CHE 567 CO ₂ Sequestration** CHE 588 Advanced Process Control CHE 594 Zeolite: Synthesis, Modification and Catalytic Application** FE 536 Experimental Design FE 538 Bioprocess Engineering Principles** BTEC508 Fundamentals of Biotechnology** | FE 515 Food Additives, Contaminants, and Toxicology FE 516 Sensory Evaluation of Foods FE 538 Bioprocess Engineering Principles** BTEC508 Fundamentals of Biotechnology** | **CHE 533 Mass Transport in Environmental Engineering** CHE 539 Indoor Air Pollution CHE 567 CO ₂ Sequestration** ME 427 Introduction to Renewable Energy Sources | CHE 511 Polymer Physics CHE 518 Adsorption** CHE 520 Material Concepts in Catalysis** CHE 531 Characterization and Processing of Particles CHE 594 Zeolite: Synthesis, Modification and Catalytic Application** MSE 510 Scanning Probe and Electron Microscopy MSE 516 Nanomaterials and Surface Engineering ME 455 Mechanical Vibrations |

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