

CHEMICAL ENGINEERING ELECTIVE COURSES		
COMPULSORY ELECTIVES		
Fifth Term		
	Credits	AKTS
CHE 300 Summer Practice I	NC	8
Yedinci Dönem		
	Credits	AKTS
CHE 400 Summer Practice II	NC	8

RESTRICTED ELECTIVES		
Third Term		
	Credits	AKTS
CHE 211 Introduction Polymer Science	(3-0)3	4
CHE 213 Microbiology	(3-0)3	4
CHE 219 Environmental Chemistry	(3-0)3	4
CHE 223 Molecular and Cell Biology	(3-0)3	4
Fourth Term		
	Credits	AKTS
CHE 226 Introduction to Environmental Engineering	(3-0)3	4
CHE 228 Structure and Properties of Polymer	(3-0)3	4
CHE 230 Potential Sources of Energy	(3-0)3	4
CHE 232 Chemical Processing of Petroleum	(3-0)3	4
CHE 234 Polymer Chemistry	(3-0)3	4
CHE 240 Combustion Science	(3-0)3	4
Eight Term		
	Credits	AKTS
CHE 411 Chemical Engineering Lab. II (PREREQUISITES:CHE 302 and CHE 312)	(0-4)2	8

TECHNICAL ELECTIVES		
	Credits	AKTS
CHE 499 Cooperative Education Course	(0-6)3	4
PRODUCT AND PROCESS ENGINEERING		
Sixth Term		
	Credits	AKTS
CHE 360 Molecular Aspects of Chemical Engineering	(3-0)3	4
CHE 362 Interfacial Transport Processes and Rheology	(3-0)3	4
CHE 364 Phase Equilibria	(3-0)3	4
CHE 384 Global Sustainable Development	(3-0)3	4
Seventh Term		
	Credits	AKTS
CHE 449 Membrane Processes and Separation of Mixtures	(3-0)3	4
CHE 451 Rheology of non-Newtonian Fluids	(3-0)3	4
CHE 453 Multicomponent Separation	(3-0)3	4
CHE 463 Adsorption	(3-0)3	4
CHE 488 Introduction to Process Simulation (PREREQUISITES: CHE 302 and CHE312)	(3-0)3	4
CHE489 Optimization and Machine Learning in Engineering	(3-0)3	4
Eight Term		
	Credits	AKTS
CHE 423 Petrochemical Processing	(3-0)3	4
CHE 446 Drying	(3-0)3	4
CHE 448 Novel Separation Techniques	(3-0)3	4
CHE 450 Gas Purification Technology	(3-0)3	4
CHE 452 Heterogenous Catalysis and Catalytic Processes	(3-0)3	4
CHE 454 Reactor Design	(3-0)3	4
CHE 456 Heat Transfer Equipment	(3-0)3	4
CHE 458 Industrial Organization and Management	(3-0)3	4
CHE 460 Catalytic Reaction	(3-0)3	4

BIOTECHNOLOGY AND BIOPROCESS ENGINEERING		
Sixth Term		
	Credits	AKTS
CHE 366 Industrial Microbiology	(3-0)3	4
CHE 368 Cell Culture Techniques	(3-0)3	4
CHE 370 Molecular Engineering Aspects of Biotechnology	(3-0)3	4
CHE 372 Physical Aspects of Biological Systems	(3-0)3	4
CHE 384 Global Sustainable Development	(3-0)3	4
Seventh Term		
	Credits	AKTS
CHE 455 Process Design for Biotechnology	(3-0)3	4
CHE 457 Metabolic and Cell Engineering	(3-0)3	4
CHE 459 Special Topics in Biotechnology	(3-0)3	4
Eight Term		
	Credits	AKTS
CHE 425 Biochemical Engineering	(3-0)3	4
CHE 462 Enzyme Technology	(3-0)3	4
CHE 464 Separation and Purification Processes for Biochemical Products	(3-0)3	4
CHE 424 Biomass Conversion to Chemicals And Fuels	(3-0)3	4

ENVIRONMENTAL AND ENERGY TECHNOLOGIES		
ENERGY		
Sixth Term		
	Credits	AKTS
CHE 346 Energy Management	(3-0)3	4
CHE 348 Energy Conservation and Conversion	(3-0)3	4
CHE 350 Introduction to Process Integration	(3-0)3	4
CHE 352 Energy Technology	(3-0)3	4
CHE 354 Combustion Engineering	(3-0)3	4
CHE 338 Photovoltaics	(3-0)3	4
CHE 384 Global Sustainable Development	(3-0)3	4
Seventh Term		
	Credits	AKTS
CHE 427 Flames	(3-0)3	4
CHE 429 Radiative Transfer	(3-0)3	4
CHE 431 Sustainable Energy	(3-0)3	4
CHE 433 Solar Energy Technology	(3-0)3	4

ENVIRONMENTAL		
Sixth Term		
	Credits	AKTS
CHE 336 Pollution Prevention	(3-0)3	4
CHE 356 Industrial Water Treatment Technologies	(3-0)3	4
CHE 358 Solid Waste Disposal	(3-0)3	4
CHE 384 Global Sustainable Development	(3-0)3	4
Seventh Term		
	Credits	AKTS
CHE 435 Fundamentals of Air Pollution and Control	(3-0)3	4
CHE 445 Industrial and Hazardous Waste Treatment	(3-0)3	4
Eight Term		
	Credits	AKTS
CHE 442 Water Pollution Control Process	(3-0)3	4
CHE 444 Environment and Technology	(3-0)3	4

MATERIALS AND SURFACE SCIENCE		
Sixth Term		
	Credits	AKTS
CHE 332 Polymer Technology	(3-0)3	4
CHE 334 Composite Materials Processing	(3-0)3	4
CHE 340 Principles of Electrochemical Processes	(3-0)3	4
CHE 342 Material Characterization Techniques	(3-0)3	4
CHE 344 Inorganic Polymers	(3-0)3	4
CHE 384 Global Sustainable Development	(3-0)3	4
Seventh Term		
	Credits	AKTS
CHE 437 Ceramic Science and Technology	(3-0)3	4
CHE 439 Biomaterials	(3-0)3	4
CHE 441 Structure of Macromolecular Media and Technology	(3-0)3	4
CHE 443 Mechanical Properties of Materials	(3-0)3	4
CHE 461 Catalytic Materials	(3-0)3	4
Eight Term		
	Credits	AKTS
CHE 440 Reactive Processing of Materials	(3-0)3	4
CHE 470 Introduction to Soft Matter	(3-0)3	4