2022-2023 EĞİTİM-ÖĞRETİM YILI GÜZ YARIYILI'NDAN İTİBAREN ENDÜSTRİ MÜHENDİSLİĞİ BÖLÜMÜ LİSANS PROGRAMI'NDA ÇAP YAPACAK BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ LİSANS PROGRAMI ÖĞRENCİLERİ İÇİN DERS PLANI

ENDÜSTRİ MÜHENDİSLİĞİ BÖLÜMÜ LİSANS PROGRAMI DERS PLANI			BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ LİSANS PROGRAMI DERS PLANI			BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ LİSANS PROGRAMI DERS PLANINDAKİ EŞDEĞER DERSLER			ÇAP ÖĞRENCİSİNİN ENDÜSTRİ MÜHENDİSLİĞİ BÖLÜMÜ LİSANS PROGRAMI DERS PLANINDAN ALMAK ZORUNDA OLDUĞU DERSLER		
1. YARIYIL			**1. YARIYIL**			**1. YARIYIL**			**1. YARIYIL**		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE1001	**Introduction to Computing**	**6**	CSE1001	Programming I	**8**	CSE1003 / IE1001	Introduction to Computer Engineering / Introduction to Computing	**5 / 6**			
IE1601	**Engineering Graphics**	**5**	CSE1003	Introduction to Computer Engineering	**5**				**IE1601**	**Engineering Graphics**	**5**
MCB1001	**Calculus I**	**7**	MCB1001	Calculus I	**7**	MCB1001 / MCB1001	Calculus I / Calculus I	**7 / 7**			
PHY1001	**Physics I**	**7**	PHY1001	Physics I	**7**	PHY1001 / PHY1001	Physics I / Physics I	**7 / 7**			
ATA1001	**Principles of Atatürk and History of Revolution I**	**2**	ATA1001	Principles of Atatürk & History of Reforms I	**2**	ATA1001 / ATA1001	Principles of Atatürk and History of Reforms I / Principles of Atatürk and History of Revolution I	**2 / 2**			
TR1001	**Turkish I**	**2**	TR1001	Turkish I	**2**	TR1001 / TR1001	Turkish I / Turkish I	**2 / 2**			
IE1702	**Academic English for Industrial Engineering I**	**3**	CSE1101	Academic English for Computer Engineering I	**3**	CSE1101 / IE1702	Academic English for Computer Engineering I / Academic English for Industrial Engineering I	**3 / 3**			
2. YARIYIL			**2. YARIYIL**			**2. YARIYIL**			**2. YARIYIL**		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE2002	**Introduction to Programming**	**5**	CSE2002	Programming II	**8**	CSE2002 / IE2002	Programming II / Introduction to Programming	**8 / 5**			
IE2401	**Introduction to Industrial Engineering**	**3**	CSE2094	Chemistry	**5**				**IE2401**	**Introduction to Industrial Engineering**	**3**
IE2602	**General Chemistry**	**5**	MCB1002	Calculus II	**7**	CSE2094 / IE2602	Chemistry / General Chemistry	**5 / 5**			
MCB1002	**Calculus II**	**7**	PHY2001	Physics II	**7**	MCB1002 / MCB1002	Calculus II / Calculus II	**7 / 7**			
PHY2001	**Physics II**	**7**	ATA2001	Principles of Atatürk & History of Reforms II	**2**	EE2221 / PHY2001	Introduction to Electric Circuits / Physics II	**6 / 7**			
ATA2001	**Principles of Atatürk and History of Revolution II**	**2**	TR2001	Turkish II	**2**	ATA2001 / ATA2001	Principles of Atatürk and History of Reforms II / Principles of Atatürk and History of Revolution II	**2 / 2**			
TR2001	**Turkish II**	**2**	CSE2102	Academic English for Computer Engineering II	**3**	TR2001 / TR2001	Turkish II / Turkish II	**2 / 2**			
IE2703	**Academic English for Industrial Engineering II**	**3**				CSE2102 / IE2703	Academic English for Computer Engineering II / Academic English for Industrial Engineering II	**3 / 3**			
3. YARIYIL			**3. YARIYIL**			**3. YARIYIL**			**3. YARIYIL**		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE3003	**Object Oriented Programming**	**5**	CSE3003	Object Oriented Programming	8	CSE3003 / IE3003	Object Oriented Programming / Object Oriented Programming	**8 / 5**			
IE3101	**Introduction to Probability**	**6**	CSE3021	Digital Design I	6	MCB1007 / IE3101	Introduction to Probability Theory and Statistics / Introduction to Probability	**6 / 6**			
IE3501	**Economics**	**4**	CSE3013	Discrete Structures	9				**IE3501**	**Economics**	**4**
IE3502	**Financial and Cost Accounting**	**4**	CSE3209	Academic Writing I (English)	3				**IE3502**	**Financial and Cost Accounting**	**4**
IE3603	**Materials Science**	**4**	MCB1004	Linear Algebra	6				**IE3603**	**Materials Science**	**4**
MCB1004	**Linear Algebra**	**6**		**Elective (minimum 2 AKTS)**	**2**	MCB1004 / MCB1004	Linear Algebra / Linear Algebra	**6 / 6**			
	Elective (minimum 2 AKTS)	**2**					Elective (minimum 2 AKTS) / Elective (minimum 2 AKTS)	**2 / 2**			
4. YARIYIL			**4. YARIYIL**			**4. YARIYIL**			**4. YARIYIL**		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE4004	**Numerical Analysis for Industrial Engineers**	**5**	CSE4061	System Analysis and Human Computer Interaction Design	**5**	MCB1008 / IE4004	Numerical Methods / Numerical Analysis for Industrial Engineers	**6 / 5**			
IE4102	**Statistics for Engineers**	**6**	CSE4024	Microprocessors	**5**				**IE4102**	**Statistics for Engineers**	**6**
IE4201	**Operations Research I**	**7**	CSE4014	Data Structures and Algorithms I	**8**				**IE4201**	**Operations Research I**	**7**
IE4503	**Engineering Economics**	**6**	CSE4023	Computer Organization	**5**				**IE4503**	**Engineering Economics**	**6**
	Departmental Elective (minimum 4 AKTS)	**4**	CSE4050	Signals and Systems for Computer Engineers	**5**						
	Elective (minimum 2 AKTS)	**2**		**Elective (minimum 2 AKTS)**	**2**		Elective (minimum 2 AKTS) / Elective (minimum 2 AKTS)	**2 / 2**			
5. YARIYIL			**5. YARIYIL**			**5. YARIYIL**			**5. YARIYIL**		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE5202	**Operations Research II**	**7**	MCB1007	Introduction to Probability Theory and Statistics	**6**				**IE5202**	**Operations Research II**	**7**
IE5403	**Facilities Design and Planning**	**7**	CSE5001	Web Programming	**6**				**IE5403**	**Facilities Design and Planning**	**7**
IE5802	**Industrial Training I**	**3**	CSE5031	Operating Systems	**5**				**IE5802**	**Industrial Training I**	**3**
ENC1001	**Engineering Orientation**	**2**	CSE5041	Database Design and Development	**6**				**ENC1001**	**Engineering Orientation**	**2**
	Departmental Elective (minimum 13 AKTS)	**13**	CSE5091	Internship I	**2**						
				Departmental Elective (minimum 6 AKTS)	**6**						
6. YARIYIL			**6. YARIYIL**			**6. YARIYIL**			**6. YARIYIL**		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE6103	**Design of Experiments**	**6**	CSE6032	Computer Networks	**7**				**IE6103**	**Design of Experiments**	**6**
IE6404	**Production Planning and Control**	**7**	CSE6064	Software Engineering	**6**				**IE6404**	**Production Planning and Control**	**7**
	Departmental Elective (minimum 17 AKTS)	**17**	MCB1008	Numerical Methods	**6**					**Departmental Elective (minimum 13 AKTS)**	**13**
				Departmental Elective (minimum 12 AKTS)	**12**						
7. YARIYIL			**7. YARIYIL**			**7. YARIYIL**			**7. YARIYIL**		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE7203	**Simulation Modelling**	**6**	CSE7311	Presentation Skills (English)	**2**				**IE7203**	**Simulation Modelling**	**6**
IE7405	**Supply Chain Management**	**5**	CSE7093	Engineering Economics	**2**				**IE7405**	**Supply Chain Management**	**5**
IE7803	**Industrial Training II**	**3**	CSE7092	Internship II	**2**				**IE7803**	**Industrial Training II**	**3**
	Departmental Elective (minimum 16 AKTS)	**16**		**Departmental Elective (minimum 24 AKTS)**	**24**					**Departmental Elective (minimum 16 AKTS)**	**16**
8. YARIYIL			**8. YARIYIL**			**8. YARIYIL**			**8. YARIYIL**		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE8406	**Quality Engineering**	**5**	CSE8090	Graduation Project	**12**				**IE8406**	**Quality Engineering**	**5**
IE8900	**Graduation Project**	**8**		**Departmental Elective (minimum 18 AKTS)**	**18**				**IE8900**	**Graduation Project**	**8**
	Departmental Elective (minimum 17 AKTS)	**17**								**Departmental Elective (minimum 17 AKTS)**	**17**
TOPLAM		**249**	**TOPLAM**		**254**	**TOPLAM**		**84**	**TOPLAM**		**144**

SEÇİMLİK ALAN DERSLERİ (SA)			SEÇİMLİK ALAN DERSLERİ (SA)			EŞDEĞER DERSLER (SA) SEÇİMLİK DERSLER			ÇİFT ANADALINDA ALACAĞI (SA) SEÇİMLİK DERSLER		
DERS KODU	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**	**DERS KODU**	**DERS ADI**	**AKTS**
IE0005	**Introduction to Fuzzy Modelling**	**5**	CSE0403	Graphical User Interface Design and Development	**6**				**IE0005**	**Introduction to Fuzzy Modelling**	**5**
IE0006	**Data Structures and Programming**	**5**	CSE0404	Game Programming	**6**	CSE4014 / IE0006	Data Structures and Algorithms I / Data Structures and Programming	**8 / 5**			
IE0104	**Introduction to Data Mining**	**6**	CSE0405	Programming Languages	**6**				**IE0104**	**Introduction to Data Mining**	**6**
IE0204	**Case Studies in Mathematical Modelling**	**6**	CSE0406	Mobile Programming	**6**				**IE0204**	**Case Studies in Mathematical Modelling**	**6**
IE0205	**Introduction to Decision Analysis**	**6**	CSE0407	Mobile Programming II	**6**				**IE0205**	**Introduction to Decision Analysis**	**6**
IE0301	**Systems Analysis**	**5**	CSE0408	Programming III	**6**	CSE4061 / IE0301	System Analysis and Human Computer Interaction Design / Systems Analysis	**5 / 5**			
IE0302	**Enterprise Resource Planning**	**5**	CSE0409	Web Programming II	**6**				**IE0302**	**Enterprise Resource Planning**	**5**
IE0303	**Management Information Systems**	**5**	CSE0415	Data Structures and Algorithms II	**6**				**IE0303**	**Management Information Systems**	**5**
IE0307	**Technology Management**	**5**	CSE0416	Analysis of Algorithms	**6**				**IE0307**	**Technology Management**	**5**
IE0402	**Ergonomics**	**6**	CSE0420	Embedded Systems	**6**				**IE0402**	**Ergonomics**	**6**
IE0407	**Work Study**	**6**	CSE0421	Cryptography	**6**				**IE0407**	**Work Study**	**6**
IE0408	**Scheduling Applications in Manufacturing and Services**	**6**	CSE0422	Digital Design II	**6**				**IE0408**	**Scheduling Applications in Manufacturing and Servic**	**6**
IE0409	**Project Management**	**6**	CSE0425	Parallel and Distributed Programming	**6**				**IE0409**	**Project Management**	**6**
IE0410	**Quality Planning and Analysis**	**5**	CSE0426	Robotics	**6**				**IE0410**	**Quality Planning and Analysis**	**5**
IE0504	**Strategic Management**	**5**	CSE0427	Computer Architecture	**6**				**IE0504**	**Strategic Management**	**5**
IE0505	**Marketing Management**	**5**	CSE0429	Cloud Computing and Security	**6**				**IE0505**	**Marketing Management**	**5**
IE0506	**Introduction to Business Management**	**4**	CSE0433	Mobile and Wireless Networks	**6**				**IE0506**	**Introduction to Business Management**	**4**
IE0507	**Organizational Behaviour and Human Resources**	**4**	CSE0434	Networks Security	**6**				**IE0507**	**Organizational Behaviour and Human Resources**	**4**
IE0508	**Labor Law**	**4**	CSE0435	Control Theory	**6**				**IE0508**	**Labor Law**	**4**
IE0604	**Computer Integrated Manufacturing Systems**	**5**	CSE0436	Cyber Systems and Information Security	**6**				**IE0604**	**Computer Integrated Manufacturing Systems**	**5**
IE0605	**Advanced Manufacturing Systems**	**6**	CSE0437	Data Communications	**6**				**IE0605**	**Advanced Manufacturing Systems**	**6**
IE0606	**Manufacturing Techniques**	**5**	CSE0440	Artificial Intelligence	**6**				**IE0606**	**Manufacturing Techniques**	**5**
IE0607	**Industrial Applications of Nanotechnology**	**6**	CSE0442	Data Warehouses and Data Mining	**6**				**IE0607**	**Industrial Applications of Nanotechnology**	**6**
IE0608	**Introduction to Renewable Energy**	**6**	CSE0443	Machine Learning	**6**				**IE0608**	**Introduction to Renewable Energy**	**6**
IE0609	**Introduction to Energy Management**	**5**	CSE0444	IT Project Management	**6**				**IE0609**	**Introduction to Energy Management**	**5**
IE0701	**Academic Writing and Presentation Skills**	**5**	CSE0445	Natural Language Processing	**6**	CSE3209 CSE7311 / IE0701	Academic Writing I (English) Presentation Skills (English) / Academic Writing and Presentation Skills	**3** **2 / 5**			
IE0901	**Special Topics in Industrial Engineering**	**2**	CSE0448	Big Data Analytics	**6**				**IE0901**	**Special Topics in Industrial Engineering**	**2**
IE0411	**Logistics Systems**	**6**	CSE0449	Internet of Things	**6**				**IE0411**	**Logistics Systems**	**6**
IE0902	**Case Studies in Industrial Engineering**	**3**	CSE0451	Image Processing	**6**				**IE0902**	**Case Studies in Industrial Engineering**	**3**
IE0007	**Advanced Excel Applications**	**5**	CSE0452	Computer Graphics	**6**				**IE0007**	**Advanced Excel Applications**	**5**
IE0412	**Advanced Project Management**	**6**	CSE0453	Multimedia Compression and Processing	**6**				**IE0412**	**Advanced Project Management**	**6**
IE0304	**Human Computer Interaction and User Experience**	**6**	CSE0454	Computer Vision	**6**				**IE0304**	**Human Computer Interaction and User Experience**	**6**
IE0305	**Business Simulation**	**6**	CSE0455	Electrical Circuits	**6**				**IE0305**	**Business Simulation**	**6**
IE0306	**Database Management Systems**	**6**	CSE0456	Telecommunication Engineering	**6**	CSE5041 / IE0306	Database Design and Development / Database Management Systems	**6 / 6**			
IE0413	**Service Management**	**6**	CSE0457	Web Mining	**6**				**IE0413**	**Service Management**	**6**
IE0509	**Managerial Skills for Industrial Engineers**	**5**	CSE0458	Evolutionary Computation	**6**				**IE0509**	**Managerial Skills for Industrial Engineers**	**5**
IE0510	**Entrepreneurship for Industrial Engineers**	**4**	CSE0462	Software Development with Standards	**6**				**IE0510**	**Entrepreneurship for Industrial Engineers**	**4**
IE0414	**Lean Management Principles and Practice**	**6**	CSE0463	Software Quality and Testing	**6**				**IE0414**	**Lean Management Principles and Practice**	**6**
IE0511	**Case Studies in Managerial Finance**	**5**	CSE0464	Advanced Software Testing	**6**				**IE0511**	**Case Studies in Managerial Finance**	**5**
CSE0406	**Mobile Programming**	**6**	CSE0465	Empirical Software Engineering	**6**				**CSE0406**	**Mobile Programming**	**6**
CSE0440	**Artificial Intelligence**	**6**	CSE0466	Secure Software Engineering	**6**				**CSE0440**	**Artificial Intelligence**	**6**
CSE0448	**Big Data Analytics**	**6**	CSE0467	Software Architecture	**6**				**CSE0448**	**Big Data Analytics**	**6**
IE0008	**Cryptocurrency and Blockchain**	**5**	CSE0468	Software Modelling and Design	**6**				**IE0008**	**Cryptocurrency and Blockchain**	**5**
IE0105	**Pricing and Revenue Management**	**5**	CSE0469	Special Topics in Software Engineering	**6**				**IE0105**	**Pricing and Revenue Management**	**5**
IE0206	**System Dynamics**	**6**	CSE0495	Engineering Ethics and Law	**6**				**IE0206**	**System Dynamics**	**6**
IE0308	**Applied Business Process Management**	**5**	CSE0496	Graph Theory and Social Networking	**6**				**IE0308**	**Applied Business Process Management**	**5**
IE0106	**Forecasting Methods and Applications**	**5**	CSE0497	Service Science Management and Engineering	**6**				**IE0106**	**Forecasting Methods and Applications**	**5**
IE0107	**Applied Machine Learning**	**5**	CSE0498	Biomedical Engineering	**6**				**IE0107**	**Applied Machine Learning**	**5**
IE0702	**Business English Practice**	**4**	CSE0499	Special Topics in Computer Engineering	**6**				**IE0702**	**Business English Practice**	**4**
CSE0449	**Internet of Things**	**6**	EE0805	Electrical Measurement	**6**				**CSE0449**	**Internet of Things**	**6**
CSE0496	**Graph Theory and Social Networking**	**6**	EE0836	Digital Speech Processing	**6**				**CSE0496**	**Graph Theory and Social Networking**	**6**
CSE0457	**Web Mining**	**6**	EE3202	Logic Design	**6**				**CSE0457**	**Web Mining**	**6**
IE0309	**IT Service Management**	**5**	EE4401	Introduction to Telecommunication	**6**				**IE0309**	**IT Service Management**	**5**
			IE0411	Logistics Systems	**6**				**MTH0001**	**Introduction to Process Mining**	**4**
			IE0607	Industrial Applications of Nanotechnology	**6**				**MTH0002**	**Digital Transformation and Industry 4.0**	**4**
			IE0608	Introduction to Renewable Energy	**6**				**IE0415**	**Sustainability Management**	**5**
			IE4201	Operations Research I	**7**						
			IE7203	Simulation Modelling	**6**						
			MCB1003	Calculus III	**7**						
			MCB1005	Differential Equations	**6**						
			CSE0449	Internet of Things	**6**						
			CSE0496	Graph Theory and Social Networking	**6**						
			CSE0457	Web Mining	**6**						
			CSE0471	Applied Deep Learning	**6**						
			CSE0472	Fundamentals of Quantum Computing	**6**						
			CSE0473	Introduction to Data Science	**6**						
			CSE0474	Ethical Hacking	**6**						
			CSE0475	Virtual and Augmented Reality Programming	**6**						
			CSE0476	Fundamentals of Blockchain	**6**						
			CSE0477	Cyber Forensics	**6**						
			CSE0478	Case Studies in Computer Engineering	**6**						
			EE2221	Introduction to Electric Circuits	**6**						
			EE2202	Electric Circuits Laboratory	**3**						
			EE0848	Machine Learning for Signal Processing	**6**						
			EE0840	Advanced Logic Design	**6**						
			IE0206	System Dynamics	**6**						

DİKKAT: ÇAP öğrencisinin ikinci anadal ders planından alması gereken derslerin AKTS toplamı en az 60 olmalıdır.

Kurallar: 1) Anadal öğreniminde aşağıdaki tabloda yer alan zorunlu derslerini alıp başarmış olan Bilgisayar Mühendisliği Bölümü öğrencileri, Endüstri Mühendisliği Bölümü Seçmeli Alan Dersleri arasında olan tablodaki derslerden muaf tutulur.

DERS KODU	DERS ADI	AKTS
IE0006 / CSE4014	**Data Structures and Programming / Data Structures and Algorithms I**	**5 / 8**
IE0301 / CSE4061	**Systems Analysis / System Analysis and Human Computer Interaction Design**	**5 / 5**
IE0701 / CSE3209 CSE7311	**Academic Writing and Presentation Skills / Academic Writing I (English) Presentation Skills (English)**	**5 / 3 2**
IE0306 / CSE5041	**Database Management Systems / Database Design and Development**	**6 / 6**

Kurallar: 2) Anadal öğreniminde aşağıdaki seçmeli alan derslerini alıp başarmış olan Bilgisayar Mühendisliği Bölümü öğrencileri, Endüstri Mühendisliği Bölümü zorunlu dersleri arasında yer alan tablodaki derslerden muaf tutulurlar.

DERS KODU	DERS ADI	AKTS
IE4201 / IE4201	**Operations Research I / Operations Research I**	**7 / 7**
IE7203 / IE7203	**Simulation Modelling / Simulation Modelling**	**6 / 6**

Kurallar: 3) Aşağıdaki tabloda yer alan dersler, anadal Bilgisayar Mühendisliği Bölümünde alındığı taktirde, ÇAP yapılacak Endüstri Mühendisliği Bölümü SA koşulundan düşülecektir.

DERS KODU	DERS ADI	AKTS
CSE0406 / CSE0406	**Mobile Programming / Mobile Programming**	**6 / 6**
CSE0440 / CSE0440	**Artificial Intelligence / Artificial Intelligence**	**6 / 6**
CSE0448 / CSE0448	**Big Data Analytics / Big Data Analytics**	**6 / 6**
CSE0449 / CSE0449	**Internet of Things/ Internet of Things**	**6 / 6**
CSE0496 / CSE0496	**Graph Theory and Social Networking /Graph Theory and Social Networking**	**6 / 6**
CSE0457/ CSE0457	**Web Mining / Web Mining**	**6 / 6**
IE0104 / CSE0442	**Introduction to Data Mining / Data Warehouses and Data Mining**	**6 / 6**
IE0107 / CSE0443	**Applied Machine Learning / Machine Learning**	**5 / 6**
IE0411 / IE0411	**Logistics Systems / Logistics Systems**	**6 / 6**
IE0607 / IE0607	**Industrial Applications of Nanotechnology /Industrial Applications of Nanotechnology**	**6 / 6**
IE0608 / IE0608	**Introduction to Renewable Energy / Introduction to Renewable Energy**	**6 / 6**
IE0206 / IE0206	**System Dynamics / System Dynamics**	**6 / 6**
IE0008 / CSE0476	**Cryptocurrency and Blockchain / Fundamentals of Blockchain**	**5 / 6**

Kurallar: 4) Endüstri Mühendisliği Bölümü Önkoşullu Dersler için öğrencinin önkoşul olan dersi almış ve en az D- başarı notu ile tamamlamış olması gerekir.

DERS KODU	DERS ADI	ÖNKOŞUL DERS KODU	ÖNKOŞUL DERS ADI
IE3101	Introduction to Probability	MCB1002	Calculus II
IE3003	Object Oriented Programming	IE2002	Introduction to Programming
IE4004	Numerical Analysis for Industrial Engineers	MCB1002 IE2002	Calculus II Introduction to Programming
IE4102	Statistics for Engineers	IE3101	Introduction to Probability
IE5202	Operations Research II	IE3101	Introduction to Probability
IE6103	Design of Experiments	IE4102	Statistics for Engineers
IE6404	Production Planning and Control	IE4201	Operations Research I
IE7203	Simulation Modelling	IE4102	Statistics for Engineers
IE7405	Supply Chain Management	IE6404	Production Planning and Control
IE7803	Industrial Training II	IE6404	Production Planning and Control
IE8406	Quality Engineering	IE4102	Statistics for Engineers
IE0302	Enterprise Resource Planning	IE6404	Production Planning and Control
IE0605	Advanced Manufacturing Systems	IE4201	Operations Research I
IE0104	Introduction to Data Mining	IE3101	Introduction to Probability
IE0006	Data Structures and Programming	IE2002	Introduction to Programming
IE0205	Introduction to Decision Analysis	IE3101	Introduction to Probability
IE0412	Advanced Project Management	IE0409	Project Management
IE0414	Lean Management Principles and Practice	IE4102	Statistics for Engineers
IE0511	Case Studies in Managerial Finance	IE3502	Financial and Cost Accounting
IE0106	Forecasting Methods and Applications	IE3101	Introduction to Probability
IE0107	Applied Machine Learning for Engineering and Design	IE3101	Introduction to Probability
IE0308	Applied Business Process Management	IE3101	Introduction to Probability