



北京理工大学
BEIJING INSTITUTE OF TECHNOLOGY

English Taught Programs for Graduates

- 1. Mechanical Engineering**
- 2. Electronics Science and Technology**
- 3. Information and Communication Engineering**
- 4. Control Science and Engineering**
- 5. Computer Science and Technology**
- 6. Aeronautics & Astronautics Science and Technology**
- 7. Cyberspace Science**
- 8. Chemistry**
- 9. Chemical Engineering and Technology**
- 10. Law**
- 11. MBA**

1. English-taught Program in Mechanical Engineering

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time	Level
1	0301003	高等机械振动	Advanced Mechanical Vibration	3	1	September	Master
2	0301008	弹性力学	Elasticity	2	1	September	Master
3	0301009	结构优化方法	Structural Optimization Method	2	1	September	Master
4	0301012	CAD/CAM/CAE原理及工程应用	Principle and Application of CAD/CAM/CAE	2	1	September	Master
5	0301019	模型预测控制	Model Predictive Control and Applications	2	1	September	Master
6	0301006	先进控制工程	Advanced Control Engineering	2	1	September	Ph.D
7	0301007	机械结构疲劳与寿命设计	Fatigue Life Design of Mechanical Structure	2	1	September	Ph.D
8	0301014	切削理论与先进制造基础	Cutting Theory and Advanced Machining Processes	2	1	September	Ph.D
9	0301001	高等工程数学导论	Introduction to Advanced Engineering Mathematics	3	2	March	Master
10	0301002	现代控制理论基础	Fundamentals of Modern Control Theory	3	2	March	Master
11	0301004	高等工程热力学和传热学	Advanced Engineering Thermodynamics and Heat Transfer	3	2	March	Master
12	0301010	现代测试技术	Modern Measurement Technology	2	2	March	Master
13	0301011	有限元原理	Principle of Finite Element Method	2	2	March	Master

14	0301015	现代车辆先进技术	Advanced Technology of Modern Vehicle	2	2	March	Master
15	0301016	节能和新能源车辆技术	Energy-saving and New Energy Vehicle Technology	2	2	March	Master
16	0301017	智能车辆机器学习技术	Learning-based Intelligent Vehicle Technology	3	2	March	Master
17	0301018	激光微纳制造及高分辨表征	Laser Micro/Nano Fabrication and High-resolution Characterization	2	2	March	Master
18	0301005	计算流体力学	Computational Fluid Dynamics	2	2	March	Ph.D
19	0301013	工程管理	Engineering Management	2	2	March	Ph.D
20	0301015	现代车辆先进技术	Advanced Technology of Modern Vehicle	2	2	March	Ph.D

2. English-taught Program in Electronic Science and Technology

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	0500018	统计信号处理B	Statistical Signal Processing B	3	1	September
2	0500020	医学图像处理与分析	Medical Image Processing & Analysis	3	1	September
3	0500054	语音信号数字处理	Digital Speech Signal Processing	2	1	September
4	0500004	现代天线理论与技术B	Modern Antenna Theory and Technology B	2	2	March
5	0500007	射频电路设计理论与应用	RF Circuit Design Theory and Application	3	2	March
6	0500014	超大规模集成电路设计导论	Introduction to VLSI Design	3	2	March
7	0500016	SOC的IP设计实现	The IP of SOC Design Implementation	3	2	March
8	0500026	FPGA与SOPC设计基础	Foundations of FPGA and SOPC Design	3	2	March
9	0500051	移动通信原理与实践	Mobile Communications Theory and Practice	3	2	March
10	0500052	扩频通信	Spread Spectrum Communication	2	2	March
11	0500053	多源数据融合理论与应用	Multi-source Data Fusion Theory and Application	2	2	March

3. English-taught Program in Information and Communication Engineering

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	0501001	统计信号处理	Fundamentals of Statistical Signal Processing	2	1	September
2	0501003	雷达系统导论	Introduction to Radar Systems	2	1	September
3	0501024	微波光子学	Microwave Photonics	2	1	September
4	0501017	高分辨雷达	High Resolution Radar	2	1	September
5	0501007	先进光纤通信系统	Advanced Optical Fiber Communication System	2	1	September
6	0501014	高等数字通信	Advanced Digital Communications	2	1	September
8	0501012	语音信号数字处理	Digital Speech Signal Processing	2	1	September
9	0501002	信息论	Information Theory	2	1	September
10	0501021	概率、随机过程和随机几何及其应用	Probability, Random Process and Stochastic Geometry in Engineering	2	1	September
11	0501011	多源数据融合理论与应用	Multi-source Data Fusion Theory and Application	2	2	March
12	0501009	FPGA与SoPC设计基础	Foundations of FPGA and SoPC Design	2	2	March
13	0501020	移动通信	Mobile Communications	2	2	March
14	0501013	通信网络基础	Fundamental Communication Networks	2	2	March

4. English-taught Program in Control Science and Engineering

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	0601001	自动控制中的线性代数	Linear Algebra with Applications in Automatic Control	3	1	September
2	0601003	随机过程理论及应用	Stochastic Process Theory and Applications	3	1	September
3	0601002	线性系统理论	Linear Systems Theory	3	1	September
4	0601007	系统工程原理及应用	Systems Engineering Principles and Application	2	1	September
5	0601004	最优与鲁棒控制	Optimal and Robust Control	3	2	March
6	0601005	计算机与分布式控制系统	Computer and Distributed Control Systems	2	2	March
7	0601006	多源信息滤波与融合	Multi-source Information Filtering and Fusion	2	2	March
8	0601008	现代电力电子学	Modern Power Electronics	2	2	March
9	0601009	博弈论与控制	Game Theory and Control	2	2	March
10	0601010	机器人感知	Robot Perception	2	2	March

5. English-taught Program in Computer Science and Technology

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	0701006	Web挖掘	Web Mining	2	1	September
2	0701003	高级操作系统	Advanced Operating Systems	2	1	September
3	0701001	计算机科学与技术前沿	Computer Science and Technology Frontier	2	1	September
4	0701014	高级计算机网络	Advanced Computer Network	2	1	September
5	0701010	内容管理与数字图书馆技术	Content Management and Digital Library	2	1	September
6	0701002	计算理论	Theory of Computation	2	2	March
7	0701007	算法与算法复杂性理论	Theory of Algorithms and Algorithmic Complexity	2	2	March
8	0701008	社交网络分析	Social Network Analysis	2	2	March
9	0701011	无线网络与移动计算	Wireless Network and Mobile Computing	2	2	March
10	0701004	机器学习与知识发现	Machine Learning and Knowledge Discovery	2	2	March

6. English-taught Program in Aeronautics & Astronautics Science and Technology

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	101005	控制理论	Control Theory	2	1	September
2	101006	轨道力学	Orbital Mechanics	3	1	September
3	101003	宇航推进原理	Fundamentals of Aerospace Propulsion	3	1	September
4	101004	飞行器制导与控制理论	Guidance and Control Theory for Flight Vehicle	2	1	September
5	101015	流体力学	Fluid Mechanics	3	2	March
6	101016	航天器姿态分析力学与非线性控制	Analytical Mechanics and Nonlinear Control for Spacecraft Attitude	2	2	March
7	101017	网络系统的协同控制及其应用	Cooperative Control over Networked Systems and its Applications	2	2	March
8	101018	现代飞行器布局设计	Modern Aircraft Configuration Design	2	2	March
9	101011	燃烧不稳定性概论	Introduction of Combustion Instability	2	2	March
10	101019	无人智群导论	Introduction to Unmanned Intelligent Swarm	2	2	March

7. English-taught Program in Cyberspace Science

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	1201004	物联网安全	Internet of Things Security	2	1	September
2	1701002	矩阵分析	Matrix Analysis	2	1	September
3	1701003	科学与工程计算	Science and Engineering Calculation	2	1	September
4	1701007	现代回归方法	Modern Regression Techniques in Data Sciences	2	1	September
5	1201005	网络空间安全导论	Introduction to Cybersecurity	2	1	September
6	1201001	数字媒体安全	Digital Media Security	2	2	March
7	1201002	移动通信安全理论与技术	Mobile Communications: Threats and Countermeasures	2	2	March
8	1201003	智能信号处理	Intelligent Signal Processing	2	2	March

8. English-taught Program in Chemistry

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	1001003	新能源技术	New Energy Technology	2	1	September
2	1001006	有机波谱分析	Spectrometric Identification of Organic Compounds	2	1	September
3	1001017	配位化学	Coordination Chemistry	2	1	September
4	1001018	X射线晶体学	X-Ray Crystallography	2	1	September
5	1001021	能源应用当中的多相催化	Heterogeneous Catalysis for Energy Applications	2	1	September
6	1001023	碳中和化工技术	Carbon Neutral Chemical Technology	2	1	September
7	1001007	超分子化学	Supramolecular Chemistry	2	2	March
8	1001024	高等仪器分析	Advanced Instrumental Analysis	2	2	March
9	1001025	金属有机化学	Organometallic Chemistry	2	2	March
10	1001026	材料科学与工程基础	Fundamentals of Materials Science and Engineering	2	2	March

9. English-taught Program in Chemical Engineering and Technology

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	1001006	有机波谱分析	Spectrometric Identification of Organic Compound	2	1	September
2	1001012	药物制剂与工艺	Pharmaceutical Dosage Forms and Technology	2	1	September
3	1001014	药物分子设计	Drug Design	2	1	September
4	1001017	配位化学	Coordination Chemistry	2	1	September
5	1001018	X 射线晶体学	X-Ray Crystallography	2	1	September
6	1001021	能源应用当中的多相催化	Heterogeneous Catalysis For Energy Applications	2	1	September
7	1001023	碳中和化工技术	Carbon Neutral Chemical Technology	2	1	September
8	1001011	化学生物学	Chemical Biology	2	2	March
9	1001013	合成生物技术	Synthetic Biotechnology	2	2	March
10	1001020	化学与化学工程统计热力学	Chemistry and Chemical Engineering Statistical Thermodynamics	3	2	March
11	1001022	膜与膜过程原理	Principles of Membranes and Membrane Processes	2	2	March
12	1001024	高等仪器分析	Advanced Instrumental Analysis	2	2	March
13	1001025	金属有机化学	Organometallic Chemistry	2	2	March
14	1001026	材料科学与工程基础	Fundamentals of Materials Science and Engineering	2	2	March

10. English-taught Program in Law

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	2300115	国际法原论	Public International Law	2	2	September
2	2300133	国际空间法专题	International Space Law	2	1	September
3	2300157	法律文献与写作	Legal Research and Writing	1	1	September
4	2300129	国际移民法	International Immigration Law	2	1	September
5	2300130	比较诉讼制度	Comparative Procedural Law	2	1	September
6	2300164	国际经济法专题	International Economical Law	2	2	March
7	2300122	工业产权法前沿问题研究	Industrial Property Rights Frontier Problem	2	2	March
8	2300127	比较合同法	Comparative Contract Law	2	2	March
9	2300132	国际人权法专题	International Human Rights Law	2	2	March

11. English-taguht Program in MBA

No.	Course Code	Course Title	Course Title	Credits	Semester	Semester Time
1	2100003	商务英语	Business English	2	1	September
2	3701007	商业伦理与企业社会责任	Business Ethics and Corporate Social Responsibility	2	1	September
3	2101019	管理经济学	Managerial Economics	2	1	September
4	2101023	战略管理（专硕）	Strategic Management(For Professional Degree)	2	1	September
5	2101021	会计学	Accounting	2	1	September
6	2101025	财务管理	Financial Management	2	1	September
7	2101020	运作管理	Operation Management	2	1	September
8	2101039	组织行为学	Organizational Behavior	2	1	September
9	2101024	管理统计学	Managerial Statistics	2	2	March
10	2101026	市场营销管理	Marketing Management	2	2	March
11	2101022	人力资源管理	Human Resource Management	2	2	March
12	2101027	管理信息系统	Management Information System	2	2	March
13	2101028	国际商务管理	International Business Management	2	2	March
14	2101029	跨文化管理	Intercultural Management	2	2	March
15	2101030	国际商法	International Business Law	2	2	March
16	2101036	创新与变革管理	Innovation & Revolution Management	2	2	March
17	2101037	品牌管理	Brand Management (For Professional Degree)	2	2	March