



北京航空航天大学
BEIHANG UNIVERSITY

北京航空航天大学

留学研究生课程目录(2014-2015 学年)

The Curricula for International Postgraduates
(2014-2015 Academic Year)

北京航空航天大学国际学院

International School, Beihang University

March, 2014

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Common & Basic Courses

公共基础课

No.	Course Title	中文课程名称	Hours	Credits	Semester
253101	Chinese (level I)	汉语(I)	60	2	Fall & Spring
253101	Chinese (level II)	汉语(II)	60	1	Fall & Spring
253103	Introduction to China	中国概况	18	1	Fall & Spring
253201	Theory of Matrix	矩阵理论	54	3	Spring
253202	Numerical Analysis	数值分析	48	3	Fall & Spring
253203	Differential Equations and Dynamical Systems	微分方程和动力系统	48	3	Spring
253206	Probability and Statistics in Engineering	概率统计(工程)	42	3	Fall
253502	Matlab Programming	Matlab 程序设计	32	2	Fall & Spring
253516	Space Environment, Orbit and Satellite Systems	空间环境、轨道与卫星系统	48	3	Fall
253518	Aerospace Materials and Processes	航空航天材料及工艺	32	2	Fall
253519	Introduction to Modern Manufacturing Technology	现代制造技术概论	32	2	Fall
253522	Finite Element Method in Engineering	有限元法在工程中的应用	48	3	Fall
253523	Introduction to Space Flight	宇航概论	18	1	Spring
253802	Scientific Literature Retrieval	科技文献检索与利用	18	1	Fall & Spring

Personal Development Workshops

Code	Course Title	Hours	Credits
WS1	BUAA Graduate Education Induction Event	2Hrs	1 st week
WS2	Speed PhD: Introduction to Postgraduate Degree	One Day	1 st week
WS3	Academic Writing	Half Day	1 st Year
WS4	Effective Presentations	Half Day	1 st Year
WS5	Introduction about the Thesis Topic Proposal	Half Day	1 st Year
WS6	Publishing Academic Papers	Half Day	2 ^{ed} Year
WS7	Planning the Final Year	Half Day	2 ^{ed} Year
WS8	Writing Up Your Thesis	Half Day	Final year
WS8	Introduction about the Defense Procedure	Half Day	Final Year

International School

国际学院

Space Technology Applications

空间技术应用

Satellite Navigation

卫星导航

No.	Course Title	中文课程名称	Hours	Credits	Semester
253703	GNSS Reference System	GNSS 基准系统	18	1	Fall
253704	Principle of Global Navigation Satellite Systems	GNSS 系统原理	32	2	Fall
253705	Navigation signal	导航信号	18	1	Fall
253706	GNSS Receiver Principles and Design	GNSS 接收机原理及设计 (含软件接收机)	32	2	Fall
253707	GNSS/INS Intergration Navigation	GNSS/INS 组合导航	32	2	Fall
253708	Global Satellite Navigation System Applications	全球卫星导航系统应用	18	1	Fall
253709	Satellite Navigation Data Processing	卫星导航数据处理	32	2	Fall
253710	GNSS Experiment	GNSS 原理实验	18	1	Spring
253711	GNSS New Technologies	GNSS 前沿技术	18	1	Spring

School of Material Science and Engineering

材料科学与工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
013301	Materials Testing Methods	材料测试方法	48	3	Fall
013302	Physical Chemistry	物理化学	48	3	Spring
013504	Failure Analysis	失效分析	48	3	Spring

School of Electronic Information Engineering

电子信息工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
023501	Digital Signal Processing	数字信号处理	52	3	Fall
023502	Fundamentals of Information Theory	信息论	48	3	Spring
023503	Stochastic Process Theory	随机过程理论	52	3	Spring
023504	Modern Digital Communications Technology	现代数字通信技术	48	3	Spring
023505	Computer Communication Networks	计算机通信网络	48	3	Fall
023506	Antenna Theory and Design	天线理论与设计	32	2	Spring
023507	Advanced Electromagnetic Theory	高等电磁场理论	48	3	Fall
023508	Computational Electromagnetics	计算电磁学	48	3	Fall
023510	Electronic Design Automation	电子设计自动化(EDA)	48	3	Spring
023511	Principles of Communications and Communication Networks	通信和通信网络原理	48	3	Spring
023512	Telemetry and Telecontrol Systems	遥测遥控系统	48	3	Spring
023513	Satellite Navigation	卫星导航	36	2	Fall
023526	Introduction to Information and Systems Security	信息系统安全概论	32	2	Spring

School of Automation Science and Electrical Engineering

自动化科学与电气工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
033503	Optimal Control	最优控制	32	2	Fall
033504	Computer Control System	计算机控制系统	32	2	Spring
033506	Inertial Technology	惯性技术	48	3	Spring
033507	Principle of Guidance	制导原理	36	2	Spring
033508	Optimal Estimation	最优估计	40	2	Spring
033509	Navigation Principle	导航原理	36	2	Fall
033510	System Identification	系统辨识	32	2	Fall
033511	Hydraulic Servo Control System	液压伺服控制	32	2	Fall
033512	Reliability Engineering	可靠性工程	32	2	Spring
033514	Computer Interface	计算机接口	34	2	Spring
033515	Micro Computer Theory and Application	微机原理和应用	32	2	Fall
033516	Hydraulic Transmission and Control	液压传动与控制	32	2	Fall
033521	The Modern Control Strategies Applied to Electro-hydraulic Servo Systems	现代电液伺服系统控制	32	2	Spring
033599	Robust Control	鲁棒控制	40	2	Spring
新添	Service Computing	服务计算	32	2	Spring

School of Jet Propulsion

能源与动力工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
043404	Fatigue and Fracture of Material	材料疲劳与断裂	32	2	Spring
043535	Flow Measurement Technics	流动测试技术	48	3	Spring

School of Aeronautical Science and Engineering

航空宇航科学与工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
053102	Man-Machine System and Flying Qualities	人机系统和飞行品质	32	2	Spring
053103	Flight Performance Analysis	飞机性能分析	32	2	Spring
053104	Modern Control Theory	现代控制理论	48	3	Fall
053110	Advanced Structural Dynamics	高等结构动力学	48	3	Fall
053112	Mechanics of Composite Materials	复合材料力学	32	2	Fall
053113	Aircraft Structural Analysis and Design	飞机结构分析与设计	32	2	Fall
053115	Flight Theory and Flight Safety	飞行原理与飞行安全	32	2	Spring
053119	Theory and Design of Aeroelasticity	气动弹性理论与设计	32	2	Spring
053120	Aircraft Aerodynamics	飞行器空气动力学	48	3	Spring
053121	Experimental Fluid Mechanics	实验流体力学	32	2	Spring
053122	Computational Fluid Mechanics	计算流体力学	48	3	Fall
053124	Flight Mechanics	飞行力学	32	2	Fall
053125	An Introduction to Complex Flows	复杂流动引论	36	2	Fall
053126	Hypersonic Aerodynamics	高超音速空气动力学	36	2	Spring
053136	Environmental Simulation and Test	环境模拟与试验	48	3	Spring

School of Aeronautical Science and Engineering

航空宇航科学与工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
053139	Aeronautical Engineering Experiment	航空工程实验	16	1	Spring
053140	Aviation Physiology and Protective Equipment	航空生理学与防护装备	32	2	Fall
053141	Flight Dynamics and Control	飞行动力学与控制	48	3	Fall

School of Computer Science & Engineering

计算机学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
063301	Software Engineering	软件工程	48	3	Fall
063302	Computer Network	计算机网络	48	3	Fall
063303	Artificial Intelligence & Application	人工智能	32	2	Fall
063304	Computer Vision	计算机视觉	32	2	Spring
063305	Data Mining	数据挖掘	32	2	Fall
063308	Object Oriented Programming(Java)	面向对象程序设计 (Java)	48	3	Fall
063309	Digital Image & Video Processing	数字图像与视频处理	32	2	Fall
063311	Data Structure	数据结构	48	3	Spring
063312	Distributed Operating System	分布式操作系统	48	3	Spring
063313	Computer Network Experimental Course	计算机网络实验	48	3	Spring
063314	Operating System	操作系统	48	3	Fall
063315	Scientific Thesis Writing	科技论文写作	18	1	Spring

School of Mechanical Engineering and Automation

机械工程及自动化学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
073180	Advanced Manufacturing Technology and Systems	先进制造技术与系统	48	3	Fall
073151	Geometrical Product Specification for Digital Manufacturing	数字化制造的产品几何定义规范	32	2	Fall
073152	Intelligent Optimization Computing	智能优化计算	32	2	Fall
073111	Mechanical system dynamics	机械系统动力学	32	2	Spring
073112	Principles of Machining and Machined Surface Integrity	切削加工原理及表面完整性	32	2	Spring
073153	Elastic and Plastic Mechanics Basis	弹塑性力学基础	32	2	Fall
073113	Nano Fabrication Technology and Theory	微纳米制造技术及理论	32	2	Spring
073143	Robot Theory	机器人学	32	2	Fall
073114	Modern Mechanical Optimization Design	现代机械优化设计	32	2	Spring
073154	Advanced Principle of Mechanics	高等机械原理	32	2	Fall
073155	Fluid Power Transmission & Control	流体传动与控制	32	2	Fall
073145	Sheet Plastic Forming Theory and Engineering Analysis	板料成形技术	32	2	Fall
073115	NC and Testing Comprehensive Experiment	数控加工与测量实验	16	1	Spring
073116	Flexible Manufacturing Cell Experiment	柔性制造单元实验	16	1	Spring
	Sheet Forming Comprehensive Experiment	板料成形综合实验	32	2	Spring

School of Mechanical Engineering and Automation

机械工程及自动化学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
	Advanced Welding Technology	先进焊接技术	32	2	Spring
	Principle of Computed Tomography	计算机断层层析成像原理	32	2	Spring
	Computer Graphics	计算机图形学	32	2	Spring
	Laser Processing	激光加工技术	32	2	Spring

School of Economics and Management

经济管理学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
083501	Microeconomics	微观经济理论	32	2	Fall
083504	Corporate Finance	公司财务	32	2	Fall
083505	Marketing Management	营销管理	32	2	Fall
083506	Accounting	会计学	32	2	Fall
083507	International Finance	国际金融学	32	2	Fall
083512	Decision Analysis	决策分析	32	2	Fall
083514	Supply Chain Management	供应链管理	32	2	Fall
083515	Operations Management	运作管理	32	2	Fall
083521	Decision Modeling and Analysis with MS Excel	Excel 决策建模与分析	32	2	Fall
083509	Statistics	统计学	32	2	Spring
083510	Macroeconomics	宏观经济学	32	2	Spring
083511	Operational Research	运筹学	32	2	Spring
083513	Project Management	项目管理	32	2	Spring
083519	Econometrics	计量经济学	32	2	Spring
083530	International Trade	国际贸易学	32	2	Spring

School of Economics and Management

经济管理学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
083535	Human Resource Management	人力资源管理	32	2	Spring
083538	Retail Management	零售管理	32	2	Spring
083547	Scientific Thesis Writing	科技论文写作	16	1	Spring

School of Humanities and Social Sciences

人文社会科学学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
113001	Public Administration	公共管理理论	48	3	Fall
113002	Qualitative method and the study design	定性方法与研究设计	32	2	Fall
113004	Human Resource Management	人力资源管理前沿研究	32	2	Fall
113005	Theory of Governance	治理理论	32	2	Fall
113006	Government Public Relation	政府公共关系专题研究	32	2	Fall
113007	Public Policy Analysis	公共政策分析	48	3	Spring
113024	Quantitative Research Method of Education	教育的定量研究方法	32	2	Spring
113025	Theory of Educational Management	教育管理理论	48	3	Fall
113026	Comparative Higher Education	比较高等教育	32	2	Fall

School of Foreign Languages

外国语学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
123101	An Introduction to Chinese Culture	中国文化概况	32	3	Fall
待定	Chinese Literature in English Translation	中国文学英译选读	32	2	Spring

School of Transportation Science and Engineering

交通科学与工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
133101	Advanced concrete structures (2)	高等混凝土结构	32	2	Fall
133106	Construction project management (2)	建设项目管理	32	2	Fall
133110	Civil engineering labs (3)	土木工程综合实验	32	2	Fall
133207	GIS-Theory and application (3)	地理信息系统原理与应用	48	3	Fall
133203	Structural concepts and systems (2)	结构概念和体系	32	2	Spring
133213	Health Monitoring and Rehabilitation of Structures (2)	工程结构健康诊治	32	2	Spring
133208	Durability of concrete materials (1)	高性能混凝土耐久性	16	1	Spring

School of Astronautics

宇航学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
153101	Conceptual Design of Launch Vehicle and Spacecraft	运载及空间飞行器概念设计	64	4	Spring
153102	Structural Analysis and Optimization	结构分析与优化	50	3	Fall
153104	Practice of MSC Patran/Nastran	Patran/Nastran 软件应用	16	1	Spring
153105	Structural Dynamics	结构动力学	32	2	Spring
153107	Integrated Navigation System	组合导航系统	48	3	Spring
153108	Modern Control Theory	现代控制理论	48	3	Spring
153110	Fundamentals of Rocket Propulsion	火箭推进基础	48	3	Fall
153111	Combustion Theory	燃烧理论	48	3	Spring
153112	Computational Fluid Dynamics	计算流体力学	48	3	Fall
153117	Introduction of Solid Propellant	固体推进剂概论	48	3	Spring
153122	Pattern Recognition	模式识别	50	3	Spring
153123	Digital Image Processing	数字图像处理	50	3	Spring
153141	Orbital Mechanics	轨道力学	48	3	Fall
153142	Ramjet Theory and Technology	冲压发动机原理及技术	32	2	Fall
153144	Spacecraft Control	航天器控制	48	3	Spring
153145	MIL-STD-1316D/E	美军标 1316D/E	20	1	Spring

School of Astronautics

宇航学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
153146	Target Sensing Technology	探测与识别技术	40	2	Spring
153147	Fuze Design	引信设计	40	3	Spring

School of Instrumentation Science and Opto-Electronics

仪器科学与光电工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
173504	Theory of Inertial Navigation	惯性导航原理	48	3	Fall
173520	Sensors Technology & Applications	传感器技术与应用	48	3	Fall
173524	Design and Fabrication of Microelectromechanical Devices	微机电器件的设计与制造	36	2	Spring

School of Chemistry and Environment

化学与环境工程学院

No.	Course Title	中文课程名称	Hours	Credits	Semester
273401	Nanoscience and nanotechnology	纳米科学与技术	48	3	Spring
273405	Nanomaterials Chemistry	纳米材料化学	48	3	Fall
273406	Surface and Interface Chemistry	表面与界面化学	48	3	Spring
273407	Supramolecular Chemistry	超分子化学	48	3	Spring