



**Bachelor Program of
Automation
(in English)**

自动化专业本科教学计划（英文授课）

2014

School of Automation Science and Electrical Engineering & International

School, Beihang University, Beijing, China

北京航空航天大学自动化科学与电气工程学院 & 国际学院

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School of Automation Science and Electrical Engineering (SASEE)

[Introduction to School of Automation Science and Electrical Engineering:

The School of Automation Science and Electrical Engineering (SASEE) of Beihang University was formerly The Department of Automatic Control founded in August 1960 and The Department of Aircraft Equipment founded in August 1954. SASEE now consists of five Departments and three educational experiment centers: The Department of Automatic Control, The Department of Electromechanical Engineering, The Department of Electrical Engineering, The Department of Measurement and Automation Equipment, The Department of Information and Control, The Educational Experiment Center for Electricity and Electronics, The Educational Experiment Center for Measurement and Control and the Center for Advanced Simulation Technology. Currently there are many outstanding faculty members in the SASEE. Among them, there is one academician of Chinese Academy of Engineering, three yang outstanding professors awarded the title of “Changjiang scholar”, 37 full professors (30 of them are supervisors of Doctoral candidates) and 69 associate professors. In addition, three academicians of Chinese Academy of Science and two academicians of Chinese Academy of Engineering hold concurrent professorship post in SASEE. At present, the total enrollment of students in SASEE is 1955, including 1000 undergraduate students, 660 Master candidates, 275 Doctor Candidates and 20 foreign students. There are 2 Bachelor degree programs (Automation and Electrical Engineering), 8 Master degree programs and 7 Doctor Degree programs offered in SASEE. SASEE has been authorized to offer graduate student degrees in one first level specialty (Automation Science and Engineering) and 9 secondary specialties (Navigation Guidance and Control, Control theory and Engineering, Measurement and Automation Equipment, Electromechanical Engineering, Pattern Recognition and Intelligent Control, Theory and Technology of Modeling & Simulation, Electric Machines and Electric Apparatus, Power Electronics & Power Drives and Theory & New Technology of Electrical Engineering.)Among them the first 7 secondary specialties have been authorized to offer Doctor Degree programs and Master degree programs, and other 2 secondary specialties can only offer Master degree programs. The specialty of Navigation Guidance and Control is ranked as a key specialty in China. The task of SASEE is to meet the challenge of worldwide competition of innovation in science and technology as well as the requirement of national economic development, to accelerate the advancement in information technology research and related advanced level personnel’s training, to promote the interdisciplinary interaction. The fulfillment of its task will lead to more contribution to the national economy and defense and to the training of more high quality professionals

Education Curriculum:

the 1st Semester

Code	Title	Hours	Credits	Note	Type	Evaluation
C03B1050I	C 语言程序设计 C Programming Language	48	2.5	Compulsory	FMC	Examination
C05D101AI	航空航天概论(A) The Introduction to Aeronautics and Astronautics (A)	34	2	Compulsory	FMC	Examination
C06D1010I	大学计算机基础 University Computer Foundation	26	2	Compulsory	FMC	Examination

A09A101AI	工科数学分析 (1) Mathematical Analysis for Engineering(1)	128	7	Compulsory	NSC	Examination
B25D116I	汉语(1) Chinese (1)	64	3.5	Compulsory	HC	Examination

the 2nd Semester

Code	Title	Hours	Credits	Note	Type	Evaluation
E07B1050I	机械设计基础 B(1) Foundation of Mechanical Design B(1)	58	3	Compulsory	FMC	Examination
A09A102AI	工科数学分析 (2) Mathematical Analysis for Engineering(2)	128	7	Compulsory	NSC	Examination
A09A103AI	工科高等代数 Advanced Algebra for Engineering	112	6	Compulsory	NSC	Examination
A19A101AI	基础物理学(1) Fundamental Physics(1)	104	5.5	Compulsory	NSC	Examination
B25D117I	汉语(2) Chinese(2)	64	3.5	Compulsory	HC	Examination

the 3rd Semester

Code	Title	Hours	Credits	Note	Type	Evaluation
E03B2110I	电路 Electric Circuits	80	5	Compulsory	FMC	Examination
A19A203AI	物理实验 A (1) Fundamental Physics Experiments A (1)	32	2	Compulsory	NSC	Examination
A19A102AI	基础物理学(2) Fundamental Physics(2)	100	5.5	Compulsory	NSC	Examination

the 4th Semester

Code	Title	Hours	Credits	Note	Type	Evaluation
E03B2120I	模拟电子技术基础 Analogue Electronic Fundamental	70	4	Compulsory	FMC	Examination
E03B2130I	数字电子技术基础 Digital Electronic Fundamental	50	3	Compulsory	FMC	Examination
E07B3060I	机械设计基础 B(2) Foundation of Mechanical Design B(2)	54	3	Compulsory	FMC	Examination
	概率统计与随机过程 A Probability Statistics and Stochastic Process A	64	4	Compulsory	NSC	Examination
A19A204AI	物理实验 A(2) Fundamental Physics Experiment A(2)	32	2	Compulsory	NSC	Examination

the 5th Semester

Code	Title	Hours	Credits	Note	Type	Evaluation
E03B3110I	微机原理与接口技术 Microcomputer Principles and Interface Technology	74	4	Compulsory	FMC	Examination
E03B320AI	自动控制原理 A(1) The Principal of Automatic Control A(1)	48	3	Compulsory	FMC	Examination
E03B3910I	电磁场基础 Fundamentals of Applied Electromagnetics	48	3	Compulsory	FMC	Examination

E07D3100	机械设计课程设计 B Practice of Mechanical Design (B)	2weeks	2	Compulsory	FMC	Examination
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the 6th Semester

Code	Title	Hours	Credits	Note	Type	Evaluation
E03B321AI	自动控制原理 A(2) The Principal of Automatic Control A(2)	24	1.5	Compulsory	FMC	Examination
E03B381AI	电力电子技术 A Power Electronics Technology A	54	3	Compulsory	FMC	Examination
E03C3310I	信号与测试技术 Signal and Measurement Technology	54	3	Compulsory	FMC	Examination
F03D3820	电力系统基础 Fundamentals of Power Systems	40	2.5	Compulsory	FMC	Examination

the 7th Semester

Code	Title	Hours	Credits	Note	Type	Evaluation
F03D4810I	航空航天供电系统 Aerospace Vehicle Electric Power Supply System	46	2.5	Compulsory	MC	Examination
F03D3920I	电器设计基础 The Basis for Electric Apparatus Design	42	2.5	Compulsory	MC	Examination
F03D4830I	开关电源技术 Switching Power Supply Technology	32	2	Elective	MC	Examination

the 8th Semester

Code	Title	Hours	Credits	Note	Type	Evaluation
G03D4010I	毕业设计 Graduation Thesis	16weeks	8	Compulsory	EPC	Test

Explanatory Notes:

NSC: Natural Science Courses (自然科学类课程)

HC: Humanities Courses (人文社科类课程)

EPC: Experiment and Practice Courses (科学和社会实践)

MC: Major Courses (专业课程)

FMC: Fundamental Major Courses (学科与专业基础课程)