

# Beihang University

Education Curriculum

## School of Mechanical Engineering and Automation (SMEA)

### (A) Education Curriculum for Mechanical Engineering and Automation

#### 1<sup>st</sup> ACADEMIC SEMESTER

Code	COURSE TITLE	CREDITS	HOURS	NOTE
05j80501	Introduction to Aeronautics and Astronautics (A)	2	34	Required
06j80611	Basic Knowledge of Computer	2	44	Required
07j80110	Descriptive Geometry(A1)	2.5	50	Required
07j80630	C Programming Language	3	54	Required
09j70010	Advanced Mathematics(1)	6	90	Required
25j50010	Chinese (1)	3.5	64	Required

#### 2<sup>nd</sup> ACADEMIC SEMESTER

Code	COURSE TITLE	CREDITS	HOURS	NOTE
25j50020	Chinese (2)	3.5	64	Required
07j80120	Mechanical Drawing (A2)	3	70	Required
09j70020	Advanced Mathematics (2)	5	86	Required
09j70120	College Physics (1)	4	72	Required

#### 3<sup>rd</sup> ACADEMIC SEMESTER

Code	COURSE TITLE	CREDITS	HOURS	NOTE
05j80740	Mechanics of Materials (A1)	2.5	40	Required
09j70030	Linear Algebra	3	52	Required
09j70121	College Physics (2)	4	72	Required
09j70190	Physics Experiment (B1)	1.5	28	Required
09j80710	Theoretical Mechanics (A1)	4	64	Required
25j50030	Chinese (3)	3.5	64	Required
07j87010	Science of Engineering Materials	3	50	Required

#### 4<sup>th</sup> ACADEMIC SEMESTER

Code	COURSE TITLE	CREDITS	HOURS	NOTE
03j80210	Circuit Analysis	3	48	Required
05j80750	Mechanics of Materials (A2)	3.5	58	Required
07j80130	Theory of Machines and Mechanisms (A3)	2.5	56	Required
07j87020	Fundamentals of Manufacturing Engineering (1)	2	34	Required
09j70040	Probability Statistics	3	52	Required
09j70200	Physics Experiment (B2)	1.5	24	Required
09j80720	Theoretical Mechanics (A2)	1.5	26	Required
25j50040	Chinese (4)	3.5	64	Required

**5<sup>th</sup> ACADEMIC SEMESTER**

Code	COURSE TITLE	CREDITS	HOURS	NOTE
03j80260	Analysis Circuit (B)	2	34	Required
03j80270	Digital Circuits (B)	2	34	Required
07j80140	Mechanical Design A4	3	69	Required
07j87030	Fundamentals of Manufacturing Engineering (2)	2	34	Required
07z87012	Motor and Driving Control	2	34	Required
07z87030	Hydrodynamics and Hydraulic Transmission	2.5	42	Required
07z87040	Fundamentals of Control Engineering	2.5	46	Required

**6<sup>th</sup> ACADEMIC SEMESTER**

Code	COURSE TITLE	CREDITS	HOURS	NOTE
07s80610	Course Project of Mechanical Design (A)	4	160	Required
07z87020	Fundamental of Measurement Technology	2	34	Required
07z87170	Numerical Control and Flexible Automation Technology	2.5	42	Required
07z87311	Production and Operations Management	3	52	Required

**7<sup>th</sup> ACADEMIC SEMESTER**

Code	COURSE TITLE	CREDITS	HOURS	NOTE
07j87050	Control Engineering and System	2	34	Required
07z87100	Philosophy of Mechanical Design	2	34	Required
07z87130	Advanced Processing Technology and Equipment	2.5	42	Required
07z87150	Computer Aided Manufacturing	3	52	Required
07z87180	Computer Control System	2.5	42	Required
07z87300	Analysis and Design of Information Systems	3	52	Required

**8<sup>th</sup> ACADEMIC SEMESTER**

Code	COURSE TITLE	CREDITS	HOURS	NOTE
07s00800	Graduation Thesis	18	720	Required