

Course List (Selected)

Degree: Bachelor of Engineering Major: Flight Vehicle Design and Engineering Institute: Harbin Institute of Technology

Dynamics & Control	Astronautics & Aeronautics	Mathematics	Computer Science	Others
<ul style="list-style-type: none">• Theoretical Mechanics• Mechanics of Materials• Structural Mechanics & Finite Element Method• Structural Dynamics• Principles of Automatic Control• Automatic Control Components and Circuits• Modern Control Theory• Kalman Filter and Integrated Navigation	<ul style="list-style-type: none">• Introduction to Aerospace Engineering• Aerodynamics• Orbital Dynamics of Spacecraft• Spacecraft Attitude Control and Dynamics• Missile Flight Dynamics and Control• Propulsion System• Structure Design of Flight Vehicle• Ballistics and Guidance of Rocket• General Design of Spacecraft• General Design of Missile and Rocket• Simulation of Spacecraft Systems• Guidance & Control System of Missile	<ul style="list-style-type: none">• Mathematical Analysis• Linear Algebra and Analytic Geometry• Complex Function and Integral Transformation• Probability Theory and Mathematical Statistics• Numerical Methods• Partial Differential Equations of Mathematical Physics• Mathematical Modeling• Calculus of Variations• Fuzzy Mathematics and Its Applications• Optimization Methods	<ul style="list-style-type: none">• Introduction to Computer Science and Programming• Advanced Programming Languages (C/C++)• Assembly Language (Audit)• Computer Organization• Database Management System and Its application• Computer-Aided Design• Distributed Computer Simulation Systems (Audit)	<ul style="list-style-type: none">• Engineering Drawing• College Physics• College Chemistry• Circuits and Electronics• Reliability Engineering• Material and Metal Technology• Fundamentals of Mechanical Design• Mechanical Measurements and Metrology• PSoC Technology and its Applications