

Master and Ph.D Degree Programs for Mechanical Engineering at School of Mechanical Engineering

■ School Introduction

The history of the School of Mechanical Engineering (ME), Shanghai Jiao Tong University (SJTU) dates back to 1913. Over the past century, the School has produced tens of thousands of graduates who make significant contribution to the technological development and economic growth in the world as scientists, engineers, educators, statesmen and entrepreneurs.

ME Faculty				School Ranking:
Total	Prof.	Assoc. Prof.	Assis. Prof.	
335	116	142	77	▲ Ranked No.16 in 2013 QS World University Rankings by Subject - Mechanical, Aeronautical & Manufacturing Engineering ▲ Ranked No.11 in 2016 US News College Rankings - Best Global Universities for Engineering

■ Program Overview

List of the Ph.D. Degree Programs	List of the Master Degree Programs
Mechanical Engineering	Mechanical Manufacturing and Automation
	Mechatronics
	Machine Design and Theory
	Vehicle Engineering
Industrial Engineering	Industrial Engineering

■ Priority Research Areas

-Mechanical Manufacturing

Manufacture Processing and Automation, Auto-body Design and Manufacture, Non-traditional Machining, Industrial Engineering, Intelligent Manufacturing

-Mechanical Design

Design Theory and Methodology, Mechanism and Mechanical Design, Artificial Prosthesis Design

-Mechatronics

Robotics and Bio-mechatronics, Precision Engineering and Control System Technology, Intelligence Robotics and Application in Industry

-Vibration, Shock and Noise

Vibration & Shock Theory, Application and Control, Noise Mechanism, Prediction and Control, Mechanical Informatics and Diagnosis

■ Main Courses

No.	Courses	Semester	No.	Courses	Semester
1	Fundamentals and Practices of Advanced Aerodynamics Measurement Technologies	Fall	14	Basic Principles of Sensors and Systems for Mechanical Measurement	Spring
2	Advanced Fluid Dynamics in Engineering	Fall	15	Advanced Engineering Thermodynamics	Fall/Spring
3	Digital Signal Processing	Fall	16	Tribology & Lubrication	Spring
4	Advanced Heat Transfer	Fall	17	Combustion Chemical Kinetics	Spring
5	Circulating Fluidized Bed Combustion	Fall	18	Multiphase Flow and Heat Transfer	Spring
6	Vehicle System Dynamics	Fall	19	Microfluid Flow and Heat Transfer	Spring
7	New Energy Systems	Fall	20	Introduction to Discrete	Spring
8	Advanced Operations	Fall	21	Data Mining	Spring
9	Computational Fluid Dynamics	Fall	22	Structural Acoustics	Spring
10	Wearable System	Fall	23	Advanced Automotive Powertrain Technology	Spring
11	Production and Operation Analysis	Fall	24	Automotive Control Engineering	Spring
12	Elastic & Plastic Mechanics	Fall	25	Chinese Culture	Fall
13	Game Theory	Fall	26	Chinese Language	Fall/Spring