1. Years of study

Three-year system

2. Teaching language

English (IELTS 5.5 and above, TOEFL 46 and above, Duolingo 90 and above)

3. Training objectives

This major cultivates comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor skills, with good teamwork, professional norms, and humanities and social science literacy. It masters solid scientific and cultural foundations, as well as professional knowledge and relevant laws and regulations such as mechanical product and process tooling design, programming and maintenance of conventional and intelligent production equipment, lean production and quality management. It possesses professional abilities in process preparation and tooling design, CNC programming and processing, mechanical product installation and debugging, equipment maintenance and repair, production organization and quality management, and has the spirit of craftsmanship and information literacy. It is a high-quality technical and skilled talent who can engage in mechanical processing process preparation and implementation, tooling design and verification, CNC equipment operation and programming, intelligent production equipment maintenance and repair, product quality inspection and control, production site management, and other work.

4. Employment positions

Process planning and implementation, tooling design and validation, quality inspection and control, CNC equipment operation, etc

5 Cooperative enterprises

Wuxi Compressor Co., Ltd., Wuxi Best Precision Machinery Co., Ltd., Wuxi Weifu High tech Group Co., Ltd., China Shipbuilding Industry Corporation No. 702 Research Institute, FAW Jiefang Automobile Co., Ltd. Wuxi Diesel Engine Factory, Wuxi Turbine Blade Co., Ltd., Wuxi Bosch Automotive Diesel System Co., Ltd., etc.

6. Main	courses
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Serial number	Course name and module code	The main content of the course (Limit to 80 characters)	Hours and hours Credits	Nature of the course	Term
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1	Mechanical Drawing and Component Mapping IIB	This course mainly teaches the basic knowledge and skills of engineering drawing, the basic theory of projection, and the basics and combinations; The drawing and reading of views, as well as the expression methods of mechanical components; The prescribed drawing methods and annotations for common and standard parts; Reading of part drawings and introduction of assembly drawings.	48 class hours 3 credits	Compulsory	2
2	Engineering Mechanics A	This course introduces the balance, motion laws, and load-bearing capacity of objects under load. Main content: force analysis of objects, force system equilibrium conditions and applications; Strength, stiffness calculation, and stability of compression bars for the four basic and combined deformations of components; Introduction to the Motion Mechanics of Points and Rigid Bodies.	64 class hours 4 credits	Compulsory	1
3	Mechanical Design II	This article mainly introduces the basic knowledge and methods of commonly used mechanical transmissions such as belt drives, chain drives, and gear drives, as well as general mechanical components such as shafts, bearings, couplings, keys, and threaded connections, including their working principles, structural characteristics, standard specifications, selection, design calculation methods, and usage and maintenance.	48 class hours 3 credits	Compulsory	3

4	Geometric precision measurement A	This course mainly introduces the basic concepts of interchangeability and the conditions for achieving interchangeability, namely tolerance and testing. Including the detection of dimensional tolerances and dimensions, geometric tolerances and geometric errors, surface roughness and its detection, etc. The precision design of commonly used connectors includes precision design of bearing fit, precision design of key and spline connections, tolerance and fit of threaded connections, tolerance and fit of gear connections, etc.	32 class hours 2 credits	Compulsory	3
5	Mechanical Manufacturing Process A	taper angle, etc. Combining the machine tools, fixtures, cutting tools, and measuring tools involved in the mechanical processing process, teaching process specifications and standards, process analysis of typical parts (shafts, sleeves, boxes, gears, irregular parts), determination of blanks, allowances, fixtures and measuring tools, cutting parameters, machining benchmarks and their fixtures, preparation of mechanical process cards, etc., to cultivate students' ability to read and prepare mechanical processing process documents.	64 class hours 4 credits	Compulsory	4

6	Hydraulic and Pneumatic Transmission Control Technology	Introduce the structure and application of commonly used hydraulic components; Composition and application of hydraulic basic circuits; Application of hydraulic servo system; Pneumatic basic circuit and several typical circuits. Testing and maintenance of hydraulic and pneumatic systems. Understand the basic knowledge and concepts of hydraulic and pneumatic transmission, master the principles and applications of commonly used hydraulic control components, analyze the working principle diagram of hydraulic or pneumatic transmission systems, and design simple hydraulic or pneumatic transmission systems.	48 class hours 3 credits	Compulsory	ц
7	Automatic fixture design	Taking CNC batch processing as the object, this course teaches the design points of automatic fixtures for machine tools, including analysis of design tasks, design of workpiece positioning schemes and positioning devices, workpiece clamping, tool guidance and alignment device design, fixture accuracy verification, and fixture pattern design. Simultaneously introduce the characteristics and applications of group fixtures, universal adjustable fixtures, intelligent fixtures, etc.	64 class hours 4 credits	Compulsory	5