**1.Years of Study**

Three years

**2.Language of Instruction**

Chinese (HSK Level 4)

**3.Cultivation Objectives**

This program is oriented to vocational ability and job requirements, and aims to cultivate students' "Chinese language proficiency + job competence + vocational literacy", scientifically oriented to create the professional characteristics of "internationalization, skillfulness and professionalism", and to cultivate students who have mastered the professional knowledge of electrical automation technology, and who possess the installation, commissioning, operation and maintenance, management, and sales of electrical, power, and automation equipment in new industries, new formats, and new modes, as well as the design, installation, and upgrading of automatic control systems, etc., and simultaneously demonstrate an understanding of the traditional Chinese culture and humanistic history.

**4.Employment Positions**

Main Positions:

(1) Electrical Engineer.

(2) Automation Engineer.

(3) Electrical Control Engineer.

Secondary positions:

(1) Equipment Maintenance and Commissioning Engineer.

(2) Electrical Installation Engineer.

**5. Co-operative enterprises**

(1) Suzhou Inovance Technology Co., Ltd.

(2) Wuxi Xinje Electric Co., Ltd.

(3) Jiangsu Heyi Intelligent Technology Co., Ltd.

(4) Suzhou Funa AI Technology Co., Ltd.

(5) Schneider Electric (China) Co., Ltd.

**6. Main courses**

| 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 |
|---|---|---|---|---|---|
| 1 | Electrical Control Equipment in Factories | This course adopts a project-based teaching method, covering typical motor control circuits, electrical control systems for machine tools, crane machinery, and other industrial applications. Students will complete the entire process of component selection, control cabinet layout, installation, and debugging in compliance with operational specifications. | 64 class hours 4 credits | Compulsory | 2 |

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| 2 | PLC Control System Design and Operation | Focuses on PLC principles, programming basics, component selection, I/O allocation, and hardware wiring. Includes projects: Three-Motor Sequential Startup Control, Automatic Material Feeding System, and Robotic Arm Handling System for hardware design and debugging. | 64 class hours 4 credits | Compu lsory | 3 |
| 3 | Microcontroller Application Technology | This course is project-based and task driven, covering MCU architecture, instruction sets, memory expansion, interrupts, timers, interfaces, D/A and A/D conversion technology. | 48 class hours 3 credits | Compu lsory | 4 |
| 4 | Industrial Power Supply Systems | Focus on fundamentals of power distribution, 10kV and below system design, operation management, and maintenance of small-scale industrial power systems. Includes schematic interpretation and on-site troubleshooting. | 32 class hours 2 credits | Compu lsory | 4 |
| 5 | Industrial Robotics Technology and Applications | Explores robot structures, motion classification, motor drives, and control systems. Combines theoretical learning with practical scenarios like robotic arm programming and automation workflows. | 32 class hours 2 credits | Restrict ed Electiv e | 4 |
| 6 | Installation, Commissioning and Operation of Motion Control System | This course adopts project-based teaching, task driven, and integrates "teaching and doing", focusing on the assessment of tangible results. The learning content includes the installation and commissioning of general frequency converters, high-performance frequency converter speed control systems, and the installation, commissioning, and operation of frequency conversion speed control comprehensive control systems. | 48 class hours 3 credits | Compu lsory | 4 |
| 7 | Industrial Software Technology and Applications | This course introduces the process of developing industrial data collection and monitoring software projects, cultivates students' analytical and design abilities, and relies on Schneider data collection and monitoring software to implement three related cases, covering HMI design, alarm configuration, trend analysis, and security systems. | 40 class hours 2.5 credits | Compu lsory | 5 |