1.Years of Study

Three years

2.Language of Instruction

Chinese (HSK Level 4)

3.Cultivation Objectives

This program is oriented towards professional competencies and job requirements, aiming to cultivate students' "Chinese proficiency + job skills + professional literacy" as the training objectives. With a scientific positioning, it strives to build distinctive "internationalized, skill-oriented, and professionalized" program features. The program aims to cultivate high-quality skilled talents who possess appropriate theoretical foundations in new energy vehicle technology, and are capable of engaging in vehicle and new energy vehicle inspection, maintenance, repair, auto parts assembly, and debugging in the fields of energy-saving and new energy vehicle maintenance, automotive technical service marketing, and automobile manufacturing. Simultaneously, students will gain an understanding of traditional Chinese culture and humanities history.

4. Employment Positions

Main Positions:

(1) New Energy Vehicle Maintenance Technician

(2) New Energy Vehicle Key Component Testing Engineer

(3) New Energy Vehicle R&D Assistant Engineer (Whole Vehicle & Key Components)

Secondary Positions:

(1) New Energy Vehicle Sales Consultant

(2) New Energy Vehicle Charging Station Operations Manager

5. Co-operative enterprises

Li Auto Inc.

Longsheng Technology Co., Ltd.

SVOLT Energy Technology Co., Ltd.

Baifan Battery (Jiangsu) 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	Automotive Electrical System Fundamentals and Maintenance	This course mainly covers core content such as automotive power systems, starting systems, lighting and signal systems, instrument and alarm systems, auxiliary electrical systems, and onboard networks. It aims to cultivate students' understanding, detection, and fault diagnosis abilities of automotive electrical systems, enabling them to have basic knowledge of automotive electrical systems and basic skills in the application of automotive electrical control technology. It aims to enhance students' ability to master modern automotive electrical systems and improve their professional quality.	48class hours 3credits	Compulsory	3
2	New energy vehicle drive motor and control technology	This course mainly teaches the structural principles, control strategies, and fault diagnosis techniques of drive motors such as permanent magnet synchronous motors and asynchronous motors. The course content covers key technologies such as motor working principles, inverter control technology, PWM modulation methods, torque control strategies, etc., as well as practical aspects such as high-voltage safety operation standards and energy efficiency optimization. The course adopts a teaching mode of "project led, task driven", which enables students to gradually master the driving motors and control technology of new energy vehicles, providing talent support for the transformation and upgrading of the automotive industry.	48 class hours 3credits	Compulsory	4

3	Cognition and Maintenance of Automotive Chassis Electronic Control System	The course mainly teaches the structural principles and maintenance techniques of chassis electronic control systems such as electronic suspension, electric steering, ABS/ESP, etc. The course covers key technologies such as system composition, control logic, and fault diagnosis, as well as practical aspects such as standard testing processes and data flow analysis. To cultivate students' basic knowledge of automotive chassis electronic control technology and basic skills in the application of automotive chassis electronic control technology, which are necessary for new energy vehicle manufacturing, assembly, maintenance, and other technical talents. The course adopts a training mode of "on-the-job course competition certificate" integration, which enhances the ability of modern automotive electronic control technology through real fault case analysis and standardized homework training, improves students' professional quality, and lays a certain foundation for continuing to learn and apply new automotive technologies in the future.	48 class hours 3credits	Compu lsory	4
4	New energy vehicle power battery and management system	This course systematically introduces the key technologies of new energy vehicle power batteries and their management systems, covering the types, structures, working principles, and performance characteristics of power batteries, with a focus on mainstream technologies such as lithium-ion batteries and solid-state batteries. The course content includes the architecture, functions (such as state estimation, balance control, thermal management), and algorithm design of Battery Management System (BMS), and explores battery safety, life optimization, and fault diagnosis methods through practical cases. By combining theoretical teaching with experimental practice, students will master the testing, modeling, and simulation techniques of power batteries, understand industry standards and cutting-edge development trends, cultivate core abilities in battery research and development, system integration, and operation and maintenance management, and lay a solid foundation for engaging in the new energy vehicle industry.	48 class hours 3credits	Compu lsory	4

5	Electrical Technology for New Energy Vehicles	This course focuses on cultivating students' understanding and maintenance skills of high-voltage electrical systems. The course content includes three major modules: Fundamentals of High Voltage Electrical Systems, Application of Power Electronics Technology, and Intelligent Distribution Systems. The course adopts a three-dimensional teaching mode of "theory+virtual+practical operation", equipped with a high-voltage safety training platform and intelligent diagnostic equipment. Through project-based teaching, students will systematically master the detection and maintenance skills of new energy vehicle electrical systems, while cultivating awareness of safety regulations. The course is aligned with the latest industry technology standards, laying a professional foundation for students to engage in future work such as electrical system maintenance and debugging of new energy vehicles.	48 class hours 3credits	Compu lsory	5
6	New Energy Vehicle Vehicle Control Technology	This course focuses on cultivating students' professional abilities in the field of vehicle electronic control systems. The course content mainly includes three modules: vehicle control system architecture, control algorithms and strategies, and system integration and testing. The course adopts a three-level teaching mode of "theory+simulation+real vehicle", equipped with advanced VCU development platform and vehicle testing system. Through project-based teaching, students will master the development and testing skills of vehicle control systems, while cultivating system thinking and engineering practical abilities. The course content is closely aligned with the forefront of industry technology, laying a solid foundation for students to engage in the development, testing, and calibration of new energy vehicle control systems in the future	32 class hours 2credits		5