

07 Objective-Module Matrix of Electronic Information Engineering

ASIIN Subject-Specific Criteria (SSC)	Learning Outcomes of the Study Programme	Corresponding Modules
Knowledge and Understanding Graduates have in particular		
<p>Acquired a solid foundation in mathematics, natural sciences and engineering, and be able to apply the knowledge of mathematics, natural sciences, engineering fundamentals and Electrical Engineering and Automation to solve complex engineering problems in the field of electrical engineering, with an understanding of the broader ethical and interdisciplinary context of engineering.</p>	<p>Acquired a solid foundation in mathematics, natural sciences and engineering. Be able to apply the knowledge of mathematics, natural sciences, engineering fundamentals and the Electronic Information Engineering major to express technical problems appropriately; be able to establish and solve mathematical models for practical problems in the engineering practice of electronic circuits or electronic information systems.</p> <p>Be able to observe, analyze and solve practical engineering problems by mathematical methods; be able to apply engineering fundamentals, professional knowledge and mathematical modeling methods to compare and synthesize solutions to engineering problems in the field of electronic information; understand the complexity of ethical and interdisciplinary contexts involved in engineering problems, and propose effective solutions with comprehensive consideration.</p>	<p>Module 2: Mathematics and Natural Science Courses</p> <ul style="list-style-type: none"> ● Advanced Mathematics ● College Physics <p>Module 3: Engineering Foundation Courses</p> <ul style="list-style-type: none"> ● Circuit Theory <p>Module 4: Professional Foundation Courses</p> <ul style="list-style-type: none"> ● Principles of Communication ● Analog Electronic Technology
Interdisciplinary Competences Graduates		
<p>Be able to apply the basic principles of mathematics, natural sciences and engineering science to identify, express and analyze complex electronic information engineering problems through literature research to draw effective conclusions.</p>	<p>Mastered the basic principles of mathematics, natural sciences and engineering science as well as mathematical modeling methods.</p> <p>Be able to correctly express complex electronic information engineering problems based on the principles of electronic information science and mathematical modeling methods; able to</p>	<p>Module 4: Professional Foundation Courses</p> <ul style="list-style-type: none"> ● Information Theory and Coding ● High-Frequency Electronic Circuits ● Digital Signal Processing

	<p>identify and judge the key links of complex problems in electronic information systems, and conduct effective analysis with professional knowledge.</p> <p>Be able to analyze the influencing factors of complex electronic information engineering problems through literature research to draw effective conclusions, and explore alternative solutions.</p>	<p>Module 5: Professional Courses</p> <ul style="list-style-type: none"> ● Digital Image Processing ● Cortex-M3 Development Technology and Practice
<p>Be able to demonstrate team spirit and take on the roles of individual, team member and leader in interdisciplinary teams.</p>	<p>Possess a sense of teamwork and the ability to communicate and cooperate effectively with members of other disciplines.</p> <p>Be able to complete technical tasks and work independently or collaboratively in a team.</p> <p>Able to take on the roles of individual, team member and leader in interdisciplinary teams, and organize, coordinate and direct team work.</p>	<p>Module 6: Engineering Practice and Graduation Project</p> <ul style="list-style-type: none"> ● Enterprise Production Practice ● Course Design of Embedded System Application ● Course Design of Single-Chip Microcomputer System Application
<p>Understand and master the principles of engineering management and economic decision-making methods in the field of electronic information, and be able to apply them in an interdisciplinary environment.</p>	<p>Understood and mastered the management and economic decision-making methods involved in engineering project practice.</p> <p>Understood the cost composition of the whole life cycle and process of electronic information engineering and electronic information products.</p> <p>Be able to apply engineering management and economic decision-making methods in the process of designing and developing solutions in an interdisciplinary environment.</p>	<p>Module 7: Interdisciplinary Courses</p> <ul style="list-style-type: none"> ● Engineering Economics <p>Module 6: Engineering Practice and Graduation Project</p> <ul style="list-style-type: none"> ● Intelligent Hardware Comprehensive Practice ● Graduation Project
<p>Have the awareness of independent and lifelong learning, as well as the ability to continuously learn and adapt to career development.</p>	<p>Possess the awareness of independent and lifelong learning and master independent learning methods.</p> <p>Be able to recognize the necessity of independent and lifelong learning against the backdrop of social development.</p> <p>Possess independent learning abilities, including the ability to understand technical problems, summarize and induce knowledge,</p>	<p>Module 6: Engineering Practice and Graduation Project</p> <ul style="list-style-type: none"> ● Course Design of Single-Chip Microcomputer System Application ● Graduation Project

	<p>and raise questions, and be able to adapt to the needs of career development.</p>	<ul style="list-style-type: none"> ● Course Design of EDA Technology and Application ● Course Design of Embedded System Application
<p>Have foreign language knowledge related to professional practice, and be able to communicate effectively with peers and the public on complex electronic information problems, including writing technical reports and design documents, making presentations, expressing or responding to instructions clearly, etc.; also possess a certain international perspective and the ability to communicate and cooperate in a cross-cultural context.</p>	<p>Mastered foreign language knowledge related to professional practice.</p> <p>Possess linguistic and written expression abilities for cross-cultural communication, and be able to conduct basic communication on professional issues in a cross-cultural context.</p> <p>Be able to accurately express views on complex electronic information engineering problems orally, in writing or through charts, respond to questions, and understand the differences in communication with industry peers and the public.</p>	<p>Module 1: Humanities and Social Science Courses</p> <ul style="list-style-type: none"> ● College English <p>Module 6: Engineering Practice and Graduation Project</p> <ul style="list-style-type: none"> ● Electronic Information Professional Foreign Language Training ● Graduation Project ● Course Design of Single-Chip Microcomputer System Application ● Course Design of EDA Technology and Application
<p>Have humanities and social science literacy, social responsibility and professional ethical competence, and be able to shape social progress with critical thinking, a sense of responsibility and a democratic spirit in electronic information engineering practice.</p>	<p>Mastered knowledge of humanities and social science literacy, professional ethics and occupational ethics, possess correct values, and have a healthy physical and psychological quality.</p> <p>Understand the engineering moral norms and professional ethics of honesty, impartiality and integrity, and consciously abide by and fulfill responsibilities in engineering practice.</p> <p>Be able to shape social progress with critical thinking, a sense of responsibility and a democratic spirit in electronic information engineering practice.</p>	<p>Module 1: Humanities and Social Science Courses</p> <ul style="list-style-type: none"> ● College Students' Mental Health Education ● Ideology, Morality and the Rule of Law ● Basic Principles of Marxism ● Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics

		<ul style="list-style-type: none"> ● Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era
Engineering Methodology Graduates are qualified to		
Develop, select and apply appropriate technologies, resources, modern engineering tools and information technology tools for complex electronic information problems to realize the testing, analysis, prediction, simulation and development of such problems, and understand their limitations.	Mastered the principles and methods of using modern instruments and meters, information technology tools, engineering tools and simulation software commonly used in the electronic information major. Be able to select and apply appropriate instruments and meters, information resources, engineering tools and professional simulation software to test, analyze, calculate and design complex engineering problems. Be able to develop or select modern tools meeting specific needs for specific objects of electronic information systems, simulate and predict professional problems in the field of electronic information, and understand their limitations.	Module 6: Engineering Practice and Graduation Project <ul style="list-style-type: none"> ● Electronic Circuit PCB Design Training ● MATLAB Fundamentals and Application Training ● Signal and Image Processing Comprehensive Training Module 5: Professional Courses <ul style="list-style-type: none"> ● EDA Technology and Application
Be able to conduct research on complex electronic information engineering problems based on scientific principles and using scientific methods such as testing, experimentation, data analysis and interpretation, and draw reasonable and effective conclusions through information synthesis.	Mastered scientific methods of testing, experimentation, data analysis and interpretation based on scientific principles. Be able to select research routes, design experimental schemes, construct experimental systems and carry out experiments safely according to the characteristics of research objects such as electronic circuits or electronic information systems. Be able to analyze and interpret experimental data of electronic circuits or electronic information systems, and draw reasonable and effective conclusions through information synthesis.	Module 3: Engineering Foundation Courses <ul style="list-style-type: none"> ● Analog Electronic Technology ● High-Frequency Electronic Circuits ● Principles of Communication Module 5: Professional Courses <ul style="list-style-type: none"> ● Cortex-M3 Development Technology and Practice
Engineering Development Graduates		
Be able to design electronic information systems, electronic products or processes meeting specific needs for solutions to complex electronic information engineering	Mastered the basic design/development methods and technologies for the whole life cycle and process of engineering design of electronic information systems and development of electronic	Module 3: Engineering Foundation Courses <ul style="list-style-type: none"> ● Principles and Applications of

<p>problems, demonstrate innovative awareness in the design process, and take into account factors such as society, health, safety, law, culture and the environment.</p>	<p>information products, and understood various factors affecting design objectives and product technical schemes.</p> <p>Be able to develop and design electronic information system products or processes meeting requirements for complex electronic information engineering problems and specific needs, and demonstrate innovative awareness in the design.</p> <p>Be able to take into account factors such as society, health, safety, law, culture and the environment in the design of electronic information systems and development of electronic information products.</p>	<p>Single-Chip Microcomputers</p> <p>Module 5: Professional Courses</p> <ul style="list-style-type: none"> ● Cortex-M3 Development Technology and Practice <p>Module 6: Engineering Practice and Graduation Project</p> <ul style="list-style-type: none"> ● Intelligent Hardware Comprehensive Practice ● Course Design of Embedded System Application ● Graduation Project
<p>Engineering Practice and Product Development Graduates</p>		
<p>Be able to analyze and evaluate the impacts of professional engineering practice and solutions to complex engineering problems in the field of electronic information on society, health, safety, law and culture based on relevant background knowledge, and understand the corresponding responsibilities.</p>	<p>Understood the relevant background knowledge such as technical standard systems, intellectual property rights, industrial policies and laws and regulations in the field of electronic information.</p> <p>Understand the impacts of different social cultures on engineering practice activities.</p> <p>Be able to analyze and evaluate the impacts of professional engineering practice and solutions to complex engineering problems in the field of electronic information on society, health, safety, law and culture, as well as the impacts of these restrictive factors on project implementation, and understand the corresponding responsibilities.</p>	<p>Module 6: Engineering Practice and Graduation Project</p> <ul style="list-style-type: none"> ● Intelligent Hardware Comprehensive Practice ● Enterprise Production Practice ● Graduation Project
<p>Be able to understand and evaluate the impacts of professional engineering practice for complex electronic information engineering problems on environmental and social sustainable development.</p>	<p>Mastered the knowledge and methods of environmental protection and sustainable development.</p> <p>Understand the concepts and connotations of environmental protection and sustainable development.</p>	<p>Module 2: Mathematics and Natural Science Courses</p> <ul style="list-style-type: none"> ● Introduction to Environmental Science

Be able to understand and evaluate the impacts of professional engineering practice for complex electronic information engineering problems on environmental and social sustainable development from the perspective of environmental protection and sustainable development.

Module 6: Engineering Practice and Graduation Project

- Enterprise Production Practice
- Professional Cognitive Practice