

07 Objective-Module Matrix of Electronic Information Engineering (2026)

ASIIN Subject-Specific Criteria (SSC)	Learning Outcomes of the Study Programme	Corresponding Modules
Knowledge and Understanding Graduates have in particular		
Acquired a solid foundation in mathematics, natural sciences, and engineering; apply this foundational knowledge—along with the core competencies of Electronic Information Engineering (e.g., circuits, signals and systems, microelectronics, communications, etc.)—to solve complex engineering problems in the field of electronic information.	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. 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.	Module 2: Mathematics and Natural Science Courses • Advanced Mathematics III • Linear Algebra II • Probability Theory and Mathematical Statistics I • Complex Functions • College Physics I Module 3: Engineering Foundation Courses • Circuit Theory • Electromagnetic Fields and Electromagnetic Waves • Analog Electronic Technology • Digital Electronic Technology • Signals and Systems
Interdisciplinary Competences Graduates		
Be able to apply the fundamental principles of mathematics, natural sciences, and engineering sciences to identify, formulate,	Mastered the basic principles of mathematics, natural sciences and engineering science as well as mathematical modeling methods.	Module 3: Engineering Foundation Courses • High-Frequency Electronic Circuits

investigate, and analyze complex engineering problems in the field of electronic information; use literature review to clarify the problem context, define the problem boundaries, and identify key influencing factors.	Be able to correctly express complex electronic information engineering problems based on the principles of electronic information science and mathematical modeling methods; able to identify and judge the key links of complex problems in electronic information systems, and conduct effective analysis with professional knowledge. Be able to analyze the influencing factors of complex electronic information engineering problems through literature research to draw effective conclusions, and explore alternative solutions.	• Information Theory & Coding • Digital Signal Processing • Communication Principle Module 4: Professional Foundation Courses • Cortex-M3 Development Technology and Practice • Digital Image Processing
In diverse and inclusive teams, as well as in multidisciplinary, remote, or distributed work environments, effectively collaborating—as either a member or a leader—to jointly complete electronic information engineering projects and leverage team synergy to achieve project objectives.	Possess a sense of teamwork and the ability to communicate and cooperate effectively with members of other disciplines. Be able to complete technical tasks and work independently or collaboratively in a team. Able to take on the roles of individual, team member and leader in interdisciplinary teams, and organize, coordinate and direct team work.	Module 1: Humanities and Social Science Courses • Entrepreneurship Foundation • Military Skills Module 6: Engineering Practice and Graduation Project • Engineering Training • Enterprise Production Practice Module 7: Interdisciplinary Courses • Innovation and Entrepreneurship Practice
Apply the knowledge and understanding of electronic information engineering management principles and economic decision-making methods in a practical manner during project planning, resource allocation, schedule control, cost accounting, and other tasks to enhance project	Understood and mastered the management and economic decision-making methods involved in engineering project practice. Understood the cost composition of the whole life cycle and process of electronic information engineering and electronic information products.	Module 6: Engineering Practice and Graduation Project • Professional Cognition Practice • Comprehensive Practice of Intelligent Hardware • Graduation Project

implementation efficiency and economic benefits.	Be able to apply engineering management and economic decision-making methods in the process of designing and developing solutions in an interdisciplinary environment.	
Recognize the necessity of continuous learning, possess the ability for independent and lifelong learning, be able to adapt to the evolving technologies and methodologies in the field of electronic information, and maintain professional competitiveness through critical thinking and systematic learning.	Possess the awareness of independent and lifelong learning and master independent learning methods. Be able to recognize the necessity of independent and lifelong learning against the backdrop of social development. Possess independent learning abilities, including the ability to understand technical problems, summarize and induce knowledge, and raise questions, and be able to adapt to the needs of career development.	Module 6: Engineering Practice and Graduation Project • Professional Cognition Practice • Course Design for Microcontroller System Application • Course Design for EDA Technology and Application • Course Design for Embedded System Application Module 8: Comprehensive Competency Development • Social Practice

Engage in effective and inclusive communication with industry peers and the general public within complex electronic information engineering projects – including drafting standardized technical reports and design documentation, preparing professional presentation materials, and clearly articulating technical perspectives and project outcomes.	Mastered foreign language knowledge related to professional practice. 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. 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.	Module 6: Engineering Practice and Graduation Project ● Course Design for Microcontroller System Application ● Course Design for EDA Technology and Application ● Comprehensive Practice of Intelligent Hardware ● Comprehensive Training of Signal and Image Processing ● Graduation Project ● Specialized English Training for Electronic Information
Be able to apply ethical principles, commit to professional ethics practices and standards in the field of electronic information engineering, and comply with relevant national and international laws and regulations; demonstrate an understanding of professional responsibility and a proper attitude, and embody a sense of social responsibility in professional practice.	Mastered knowledge of humanities and social science literacy, professional ethics and occupational ethics, possess correct values, and have a healthy physical and psychological quality. Understand the engineering moral norms and professional ethics of honesty, impartiality and integrity, and consciously abide by and fulfill responsibilities in engineering practice. Be able to shape social progress with critical thinking, a sense of responsibility and a democratic spirit in electronic information engineering practice.	Module 1: Humanities and Social Science Courses ● 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 ● 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, and modern electronic information engineering tools (such as EDA software, simulation tools, test instruments, etc.) – including predicting and modeling the performance of electronic information systems, understanding the limitations of these tools, and using them appropriately.	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 4: Professional Foundation Courses • EDA Technology and Application • Cortex- M3 Development Technology and Practice Module 6: Engineering Practice and Graduation Project • Electronic Circuit PCB Design Training • Course Design for EDA Technology and Application • Comprehensive Training of Signal and Image Processing
Be able to apply scientific research methods to investigate complex electronic information engineering problems and systems—including designing experimental protocols based on domain expertise, collecting and analyzing experimental data, interpreting experimental results, and validating the feasibility of solutions through research.	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 • Circuit Theory • Analog Electronic Technology • Digital Electronic Technology • High-Frequency Electronic Circuits Module 6: Engineering Practice and Graduation Project • Comprehensive Practice of Intelligent Hardware
Engineering Development Graduates		

Capable of designing innovative solutions for complex electronic information engineering problems; designing electronic information systems, components, or processes that meet specific requirements such as functionality, performance, reliability, and cost; and taking relevant standards and constraints into account during the design process.	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 information products, and understood various factors affecting design objectives and product technical schemes. 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. 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.	Module 4: Professional Foundation Courses • EDA Technology and Application • Cortex-M3 Development Technology and Practice Module 6: Engineering Practice and Graduation Project • Course Design for Microcontroller System Application • Course Design for EDA Technology and Application • Course Design for Embedded System Application • Graduation Project • Comprehensive Practice of Intelligent Hardware
Engineering Practice and Product Development Graduates		
Be able to analyze and assess the outcomes of electronic information engineering practices across various domains—including sustainable development, social impact, economic cost, health and safety, legal and regulatory requirements, and environmental responsibility—while integrating holistic considerations into problem definition and solution design.	Understand industry standards, regulations, and intellectual property policies in the electronic information sector; clarify the role of multiculturalism in engineering projects; and master the principles and professional knowledge related to environmental protection and sustainable development. Be able to assess the social, security, legal, and other impacts arising from electronic information engineering practices, and clearly understand both project constraints and one's own responsibilities.	Module 2: Mathematics and Natural Science Courses • Introduction to Environmental Science Module 6: Engineering Practice and Graduation Project • Professional Cognition Practice • Enterprise Production Practice • Comprehensive Practice of Intelligent Hardware

	Assess the sustainability of electronic information engineering from the perspectives of environmental protection and sustainable development, and evaluate the potential hazards posed by products throughout their entire life cycle to both humans and the environment.	● Graduation Project
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