

UNIVERSITY-LEVEL TRAINING PROGRAMS
COMPUTER NETWORK AND DATA COMMUNICATIONS ENGINEER

*(Issued under Decision No:271/QĐ-UHNCT dated December 31, 2022, of
Rector of Nam Can Tho University)*

Program Name: **Computer Networks and Data Communication Training
Program**

Training level: **Regular university**

Training Major: **Computer Networks and Data communication**

Code: **7480102**

Type of training: **Formal**

1. DESCRIPTION OF THE TRAINING PROGRAM

1.1 Introduction to the training program

The Computer Networks and Data Communication Training (CN&DC) Program aims to train Computer Network and Data Communication Engineers to have sufficient knowledge, professional skills, political qualities, ethics, professional manners, and good health to be able to work effectively in fields related to Computer Network operations and data communication.

1.2 General information about the training program

| | |
|----------------------------|---|
| Program Name (Vietnamese) | Mạng máy tính và truyền thông dữ liệu |
| Program Name (English) | Data communication and Computer networks |
| Training industry code | 7480102 |
| Degree schools | Nam Can Tho University |
| Name of diploma | Computer Network and Data Communications Engineer |
| Training level | University |
| Number of credits required | 150 |
| Forms of training | Regular |
| Duration of training | 4.5 years |
| Subjects of enrollment | High school graduates |
| Rating scale | 10 |
| Graduation requirements | <ul style="list-style-type: none">- Accumulate a sufficient number of modules and the volume of the training program reaches 150 credits;- An overall cumulative GPA of 4.0 or higher;- Meet the outcome standards of English and Informatics proficiency according to the general regulations of the school. |

| | |
|---------------------------------|--|
| | <ul style="list-style-type: none"> - Meet the outcome standards of Soft skills and professional skills; - Have certificates in Defense-Security Education and Physical Education. |
| Job Placement | <ul style="list-style-type: none"> - IT staff in organizations and enterprises; - Specialist in programming, database management, and information systems; - Employees working in the field of computer network application in enterprises, organizations, agencies, and departments. |
| Advanced learning | It is possible to continue master's and doctoral studies at home and abroad. |
| Reference program when building | Overseas training programs; Can Tho University's Training Program; |
| Update time | 12/2022 |

1.3 Training objectives of the program

1.3.1 General objectives

- To train human resources with engineer and bachelor degrees with sufficient health, solid knowledge, and professional capacity to meet social requirements and needs of learners, in accordance with the process of industrialization and modernization of the country.

- Have moral qualities, the ability to self-study, and self-research in order to achieve standards of knowledge and study to improve professional qualifications.

- Train qualified human resources to work at agencies, schools, research institutes, and companies related to the field of computer networks and communications.

1.3.2 Specific objectives

M1: Understand and apply the background and in-depth knowledge of the field of Computer Networks and Communications to professional work.

M2: Form professional ideas in Computer Networks and Communications and develop the ability to manage and administer the working step process.

M3: Meet the requirements of professional skills, soft skills from society, working environment and research.

M4: Organize and implement professional operations Computer networks and communications, thereby developing creative capacity at work.

M5: Develop the capacity of administration, environmental management, and working personnel.

M6: Forming the ability to self-study and self-study in the professional field, thereby developing corresponding competencies in both life and guiding those around them, thereby changing and improving social life.

1.4 Output standards of CTEs

1.4.1 Education

General knowledge

PO1: Understand the basic principles of Marxism-Leninism, Ho Chi Minh Thought, the revolutionary line of the Communist Party of Vietnam and Vietnamese law, taking that as a basis for cultivating political ethics.

PO2: Apply knowledge of National Defense Education, thereby training awareness and responsibility to defend the country.

PO3: Achieve foreign language proficiency in English and Informatics as prescribed by the school.

Expertise

PO4: Master the basic knowledge of CN&DC with basic and interdisciplinary scientific knowledge and be able to apply it to the specialized field of CN&DC.

PO5: Master the knowledge of analysis, programming, database management, knowledge management, and the ability to apply the knowledge learned to the software development process to solve real problems.

PO6: The ability to analyze, evaluate and select contemporary technologies in accordance with actual needs, applied to the management process of computer-based systems.

1.4.2 Skills

Professional skills

PO7: Ability to analyze, design and install network systems based on the analysis and modeling of user requirements.

PO8: Ability to identify, analyze, evaluate, and select solutions in accordance with objective practical requirements.

PO9: Ability to participate in implementing, deploying and managing small and medium-sized network and data communication systems to meet the quality requirements of network systems based on different network platforms.

PO10: Access and deploy new technology and knowledge to improve and improve professional qualifications and work efficiency.

Soft skills

PO11: Have critical skills based on practical experience, creative skills and problem-solving skills.

PO12: Ability to work, research, and solve problems independently.

PO13: Have effective communication skills, teamwork, and the ability to adapt to changes in the professional environment through presentations, reports, discussions, negotiations, listening, and mastering situations.

PO14: Have skills to effectively manage a computer network and data communication project.

1.4.3 Capacity for Autonomy and Self-responsibility

PO15: Have civic responsibility, political qualities, patriotism and love of the profession.

PO16: Have a sense of role, responsibility, and professional ethics in society, behave professionally, respect commitment, honesty, prestige, and have the ability to perceive and evaluate phenomena logically and positively.

PO17: Recognizing the need and ability to participate in lifelong learning. Share and spread capacity to the community and society.

1.5 Target matrix and CT outcome standards

| Objectives of the CT | Output standards of CTEs | | | | | | | | | | | | | | | | |
|----------------------|--------------------------|-----|-----|-----|-----|-----|-------|-----|-----|------|------|------|------|------|------|---|------|
| | Knowledge | | | | | | Skill | | | | | | | | | Capacity for autonomy and self-responsibility | |
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PO13 | PO14 | PO15 | PO16 | PO17 |
| M1 | | | X | X | X | | | X | X | X | X | X | | X | | | |
| M2 | | | | | X | X | | | X | | | X | | | | | |
| M3 | | | X | X | X | | X | | | | | | X | | | X | X |
| M4 | | | | X | X | X | X | | X | X | | | X | X | | | |
| M5 | X | X | X | | | X | | | X | | X | X | X | X | X | | X |
| M6 | X | X | X | | | | X | X | | X | X | X | | | X | X | X |

2. Training period: 4.5 years

3. Full-course knowledge load: 150 credits (excluding modules of Physical Education, Defense – Security Education), distributed as follows:

| TT | Program structure | Mass | Compulsory | Elective | Rate (%) |
|--------------|----------------------------------|---------------|------------|-----------|-------------|
| 1 | General education knowledge | 40 TC | 38 | 2 | 26.70% |
| 2 | Professional education knowledge | 110 TC | 95 | 15 | 73.30% |
| 2.1 | Industry Base Knowledge | 47 TC | 38 | 9 | 31.30% |
| 2.2 | Specialized knowledge | 49 TC | 43 | 6 | 32,7% |
| 2.3 | Graduate Internship | 4 TC | 4 | 0 | 2.70% |
| 2.4 | Graduation thesis course | 10 TC | 10 | 0 | 6,7% |
| TOTAL | | 150 TC | 40 | 17 | 100% |

4. Subjects of enrollment

- Admission is based on the results of the national high school graduation examination or the academic record of studying at the high school level according to a combination of subjects by discipline and admission throughout the country.

5. Training process, graduation conditions

5.1 Training process

- Implement regulations on formal university and college training according to the current credit system and training regulations of Nam Can Tho University.

5.2 Graduation conditions

- Students who complete the training program are considered for graduation and recognized for graduation according to article 27 of the training regulations under the credit system.
- Achieve English proficiency according to the general regulations of the school.
- Obtained the Certificate of National Defense and Security Education; Physical education; Soft Skills and Professional Skills.
- Assessment of department and module grades shall comply with Articles 22 and 23 of the training regulations under the credit system.
- Academic year rankings and graduation rankings shall comply with Articles 14 and 28 of the training regulations under the credit system.

6. PROGRAM CONTENT

6.1 General education knowledge: 40 credits

- *Political theory*

| STT | Module name | Credit number | Theory | Practice |
|--------------|---|---------------|-----------|----------|
| 1 | Philosophy | 3 | 3 | |
| 2 | Political economy | 2 | 2 | |
| 3 | Scientific socialism | 2 | 2 | |
| 4 | Ho Chi Minh Thought | 2 | 2 | |
| 5 | History of the Communist Party of Vietnam | 2 | 2 | |
| Total | | 11 | 11 | |

- *Humanities and Social Sciences*

| STT | Module name | Credit number | Theory | Practice |
|-------------------------|-------------------------------|---------------|----------|----------|
| 1 | General legislation | 2 | 2 | |
| 2 | General psychology | 2 | 2 | |
| 3 | University Skills | 2 | 2 | |
| Elective modules | | 2 | 2 | |
| 4 | General sociology | 2 | 2 | |
| 5 | General logic | 2 | 2 | |
| 6 | Vietnamese Theory Foundations | 2 | 2 | |
| Total | | 8 | 8 | |

- *Foreign language*

| STT | Module name | Credit number | Theory | Practice |
|--------------|-------------------|---------------|-----------|----------|
| 1 | Basic English 1 | 3 | 3 | |
| 2 | Basic English 2 | 3 | 3 | |
| 3 | Basic English 3 | 3 | 3 | |
| 4 | English for CN&DC | 3 | 3 | |
| Total | | 12 | 12 | |

- *Mathematics - Informatics - Natural Sciences*

| STT | Module name | Credit number | Theory | Practice |
|--------------|-------------------------|---------------|----------|----------|
| 1 | Advanced Math 1 | 3 | 3 | |
| 2 | Advanced Math 2 | 3 | 3 | |
| 3 | Statistical probability | 3 | 3 | |
| Total | | 9 | 9 | |

- *Physical education – defense and security education (*)*

| STT | Module name | Credit number | Theory | Practice |
|--------------|------------------------------------|---------------|----------|----------|
| 1 | Physical Education 1 (*) | 1 | | 1 |
| 2 | Physical Education 2 (*) | 1 | | 1 |
| 3 | Physical Education 3 (*) | 1 | | 1 |
| 4 | Defense and security education (*) | 8 | 5 | 3 |
| Total | | 11 | 5 | 6 |

(*) Prerequisite modules, not counting overall GPA.

6.2 Professional education knowledge: 102 credits

- *Industry Base Knowledge*

| STT | Module name | Credit number | Theory | Practice |
|-------------------|--|---------------|--------|----------|
| Compulsory | | 39 | | |
| 1 | Basic programming | 2 | 2 | |
| 2 | Basic Programming – Practice | 2 | | 2 |
| 3 | Discrete math 1 | 3 | 3 | |
| 4 | Discrete Math 2 | 3 | 3 | |
| 5 | Data structures | 3 | 3 | |
| 6 | Data Structures – Practice | 1 | | 1 |
| 7 | Algorithm analysis and design | 2 | 2 | |
| 8 | Algorithm Analysis and Design – Practice | 1 | | 1 |
| 9 | Databases | 2 | 2 | |

| STT | Module name | Credit number | Theory | Practice |
|-------------------------|---|---------------|----------|----------|
| 10 | Database – Practice | 1 | | 1 |
| 11 | Introduction to CN&DC | 2 | 2 | |
| 12 | Operating system principle | 2 | 2 | |
| 13 | Principles of operating systems – Practice | 1 | | 1 |
| 14 | Computer architecture | 3 | 3 | |
| 15 | Web design | 2 | 2 | |
| 16 | Web Design – Practice | 1 | | 1 |
| 17 | Research methods and writing scientific reports | 2 | 2 | |
| 18 | Linear planning | 2 | 2 | |
| 19 | System Administration | 3 | 2 | 1 |
| Elective modules | | 9 | 3 | |
| 20 | Modeling languages | 3 | 3 | |
| 21 | Graphic engineering | 3 | 3 | |
| 22 | Information theory | 3 | 3 | |
| 23 | Telecommunication network | 3 | 3 | |
| 24 | Embedded systems | 3 | 3 | |
| 25 | Artificial intelligence | 3 | 3 | |
| 26 | Device communication programming | 3 | 2 | 1 |
| 27 | Optical network | 3 | 2 | 1 |
| Total | | 47 | | |

- *Specialized knowledge*

| STT | Module name | Credit number | Theory | Practice |
|-------------------|--|---------------|-----------|-----------|
| Compulsory | | 43 | 23 | 15 |
| 1 | Computer networks | 2 | 2 | |
| 2 | Computer Networks – Practice | 1 | | 1 |
| 3 | Network system analysis and design | 2 | 2 | |
| 4 | Network System Analysis and Design – Practice | 1 | | 1 |
| 5 | Building network infrastructure | 2 | 2 | |
| 6 | Network infrastructure construction – Practice | 1 | | 1 |
| 7 | Network deployment | 2 | 2 | |
| 8 | Network system deployment – Practice | 1 | | 1 |

| STT | Module name | Credit number | Theory | Practice |
|-------------------------|--|---------------|----------|----------|
| 9 | Computer network administration | 2 | 2 | |
| 10 | Computer Network Administration – Practice | 1 | | 1 |
| 11 | Database Management System | 2 | 2 | |
| 12 | Database Management System – Practice | 1 | | 1 |
| 13 | Cloud computing | 2 | 2 | |
| 14 | Cloud Computing – Practice | 1 | | 1 |
| 15 | Cybersecurity | 3 | 3 | |
| 16 | Evaluate network performance | 2 | 2 | |
| 17 | Network Performance Assessment – Practice | 1 | | 1 |
| 18 | Network programming | 2 | 2 | |
| 19 | Network Programming – Practice | 1 | | 1 |
| 20 | Basic Project - CN&DC | 3 | | 3 |
| 21 | Specialized Project - CN&DC | 3 | | 3 |
| 22 | Information security | 2 | 2 | |
| 23 | Network problem solving | 2 | 2 | |
| 24 | Network attack detection techniques | 3 | 2 | 1 |
| Elective modules | | 6 | 6 | |
| 25 | Mobile device programming | 3 | 2 | 1 |
| 26 | IoT Technology | 3 | 2 | 1 |
| 27 | E-commerce system | 3 | 2 | 1 |
| 28 | Machine learning principles | 3 | 2 | 1 |
| 29 | J2EE Technology | 3 | 2 | 1 |
| 30 | Firewall | 3 | 2 | 1 |
| Total | | 49 | | |

- *Final internship and graduation thesis course*

| STT | Subject name | Credit number | Theory | Practice |
|-----|---|--------------------------|----------|----------|
| 1 | Graduate Internship (CN&DC) | 4 | | 4 |
| 2 | Thesis course divided into 2 groups | 10 | 2 | 8 |
| 2.1 | Group 1 - Graduation thesis course (CN&DC) | 10 | 2 | 8 |
| 2.2 | Group 2 | Graduation essay | 4 | 1 |
| | | CN&DC Graduate Seminar 1 | 3 | 3 |

| | | | | | | |
|--|--------------|--------------------------|---|-----------|---|-----------|
| | | CN&DC Graduate Seminar 2 | or Group 2: Alternative Graduation Essays and Thematics. | 3 | | 3 |
| | Total | | | 14 | 2 | 12 |

7. INSTRUCTIONAL PLAN (TENTATIVE)

7.1 Semester 1

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|---------------|---------------------------------|---------------|-----------------|--------------------|-----------|
| | | | | Theory | Practice |
| 1 | Basic English 1 | 3 | 45 | 45 | |
| 2 | Introduction to CN&DC | 2 | 30 | 30 | |
| 3 | General legislation | 2 | 30 | 30 | |
| 4 | General psychology | 2 | 30 | 30 | |
| 5 | Advanced Math 1 | 3 | 45 | 45 | |
| 6 | Discrete math 1 | 3 | 45 | 45 | |
| 7 | University Skills | 2 | 30 | 30 | |
| 8 | <i>Physical Education 1 (*)</i> | <i>1</i> | <i>30</i> | | <i>30</i> |
| Total: | | 17 | | | |

7.2 Semester 2

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|---------------|---------------------------------|---------------|-----------------|--------------------|-----------|
| | | | | Theory | Practice |
| 1 | Marxist–Leninist philosophy | 3 | 45 | 45 | |
| 2 | Basic English 2 | 3 | 45 | 45 | |
| 3 | Computer architecture | 3 | 45 | 45 | |
| 4 | Basic programming | 2 | 30 | 30 | |
| 5 | Basic Programming – Practice | 2 | 60 | | 60 |
| 6 | Discrete Math 2 | 3 | 45 | 45 | |
| 7 | Advanced Math 2 | 3 | 45 | 45 | |
| 8 | <i>Physical Education 2 (*)</i> | <i>1</i> | <i>30</i> | | <i>30</i> |
| 9 | <i>Defense Education (*)</i> | <i>8</i> | <i>165</i> | <i>75</i> | <i>90</i> |
| Total: | | 19 | | | |

7.3 Semester 3

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|----|-----------------|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 1 | Basic English 3 | 3 | 45 | 45 | |

| | | | | | |
|-------------------------|---|-----------|-----------|-----------|----|
| 2 | Statistical probability | 3 | 45 | 45 | |
| 3 | Marxist–Leninist political economy | 2 | 30 | 30 | |
| 4 | Data structures | 3 | 45 | 45 | 30 |
| 5 | Data Structures – Practice | 1 | 30 | | 30 |
| 6 | Operating System Principle | 2 | 30 | 30 | |
| 7 | Principles of Operating System – Practice | 1 | 30 | | 30 |
| 8 | <i>Physical Education 3 (*)</i> | 1 | 30 | | 30 |
| Elective modules | | 2 | 30 | 30 | |
| 9 | General sociology | 2 | 30 | 30 | |
| 10 | General logic | 2 | 30 | 30 | |
| 11 | Vietnamese Cultural Foundations | 2 | 30 | 30 | |
| Total: | | 17 | | | |

7.4 Semester 4

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|---------------|--|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 1 | Web design | 2 | 30 | 30 | |
| 2 | Web Design – Practice | 1 | 30 | | 30 |
| 3 | Databases | 2 | 30 | 30 | 30 |
| 4 | Database – Practice | 1 | 30 | | 30 |
| 5 | Linear planning | 2 | 30 | 30 | |
| 6 | Scientific socialism | 2 | 30 | 30 | |
| 7 | Algorithm analysis and design | 2 | 30 | 30 | |
| 8 | Algorithm Analysis and Design – Practice | 1 | 30 | | 30 |
| 9 | Computer networks | 2 | 30 | 30 | |
| 10 | Computer Networks – Practice | 1 | 30 | | 30 |
| 11 | Information security | 2 | 30 | 30 | |
| Total: | | 18 | | | |

7.5 Semester 5

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|----|---|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 1 | History of the Communist Party of Vietnam | 2 | 30 | 30 | |

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|---------------|---|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 2 | Database Management System | 2 | 30 | 30 | |
| 3 | Database management system – practice | 1 | 30 | | 30 |
| 4 | Scientific research methods | 2 | 30 | 30 | |
| 5 | Network system analysis and design | 2 | 30 | 30 | |
| 6 | Network System Analysis and Design – Practice | 1 | 30 | | 30 |
| 7 | Computer network administration | 2 | 30 | 30 | |
| 8 | Computer Network Administration – Practice | 1 | 30 | | 30 |
| | Elective modules | 6 | | | |
| 9 | Telecommunication network | 3 | 45 | 45 | |
| 10 | Embedded systems | 3 | 45 | 45 | |
| 11 | Modeling languages | 3 | 45 | 45 | |
| 12 | Information theory | 3 | 45 | 45 | |
| Total: | | 19 | | | |

7.6 Semester 6

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|----|--|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 1 | Specialized English - CN&DC | 3 | 45 | 45 | |
| 2 | Ho Chi Minh Thought | 2 | 30 | 30 | |
| 3 | Building network infrastructure | 2 | 30 | 30 | |
| 4 | Network infrastructure construction – Practice | 1 | 30 | | 30 |
| 5 | Network deployment | 2 | 30 | 30 | |
| 6 | Network system deployment – Practice | 1 | 30 | | 30 |
| 7 | Base Project - CN&DC | 3 | 90 | | 90 |
| | Elective modules | 3 | | | |
| 8 | Artificial intelligence | 3 | 45 | 45 | |
| 9 | Device communication programming | 3 | 60 | 30 | 30 |

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|---------------|-----------------------------|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 1 | Specialized English - CN&DC | 3 | 45 | 45 | |
| 10 | Optical network | 3 | 45 | 45 | |
| Total: | | 17 | | | |

7.7 Semester 7

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|---------------|---|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 1 | Cloud computing | 2 | 30 | 30 | |
| 2 | Cloud Computing – Practice | 1 | 30 | | 30 |
| 3 | Network programming | 2 | 30 | 30 | |
| 4 | Network Programming – Practice | 1 | 30 | | 30 |
| 5 | Evaluate network performance | 2 | 30 | 30 | |
| 6 | Network Performance Evaluation - Practice | 1 | 30 | | 30 |
| 7 | CN&DC specialized projects | 3 | 90 | | 90 |
| | Elective modules | 3 | | | |
| 8 | Mobile device programming | 3 | 60 | 30 | 30 |
| 9 | E-commerce system | 3 | 60 | 30 | 30 |
| 10 | IoT Technology | 3 | 60 | 30 | 30 |
| Total: | | 15 | | | |

7.8 Semester 8

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|----|-------------------------------------|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 1 | Cybersecurity | 3 | 60 | 30 | 30 |
| 2 | Network problem solving | 2 | 30 | 30 | |
| 3 | Network attack detection techniques | 3 | 60 | 30 | 30 |
| 4 | System Administration | 3 | 60 | 30 | 30 |
| | Elective modules | 3 | | | |
| 5 | Machine learning principles | 3 | 60 | 30 | 30 |
| 6 | J2EE Technology | 3 | 60 | 30 | 30 |

| TT | Name of course | Credit number | Sum of episodic | Number of episodes | |
|---------------|----------------|---------------|-----------------|--------------------|----------|
| | | | | Theory | Practice |
| 1 | Cybersecurity | 3 | 60 | 30 | 30 |
| 7 | Firewall | 3 | 60 | 30 | 30 |
| Total: | | 14 | | | |

7.9 Semester 9

| TT | Name of course | | Credit number | Sum of episodic | Number of episodes | |
|---------------|--|--|---------------|-----------------|--------------------|----------|
| | | | | | Theory | Practice |
| 1 | CN&DC Graduate Internship | | 4 | 180 | | 180 |
| 2 | Group 1: CN&DC graduation thesis course | Select Group 1: Graduate Thesis Course (CN&DC) or Group 2: Alternative Graduation Essays and Thematics(*). | 10 | 420 | 30 | 390 |
| 3 | Graduation essay | | 4 | 105 | 15 | 90 |
| | Group 2 CN&DC Graduate Seminar 1 | | 3 | 90 | | 90 |
| | CN&DC Graduate Seminar 2 | | 3 | 90 | | 90 |
| Total: | | | 14 | | | |

(*). If the student is not eligible to undertake the graduation thesis, alternative modules will be taken.

8. PROGRAM IMPLEMENTATION GUIDE

8.1 For faculties and departments:

- The Faculty and Department are responsible for reviewing and presiding over the compilation of detailed outlines of modules of basic knowledge of sectors, disciplines, and majors according to the credit volume of this program. Provide lists of textbooks, lectures, and reference materials of all modules to the University Library and store them at the Faculty Office. At the beginning of each semester, coordinate with units of the University to implement the training plan on schedule.

- Assign lecturers with master's degrees or higher (same discipline or related major) to teach theoretical modules and provide detailed module outlines to lecturers to ensure that they follow the general teaching plan of the University.

- The academic advisor team must thoroughly understand the entire credit-based curriculum to guide students to register for modules.

8.2 For lecturers

- When teachers are assigned to teach one or more modules, it is necessary to carefully study the contents of the detailed module outline to prepare lectures and appropriate teaching facilities and supplies.

- Teachers must prepare all lectures, textbooks, and learning materials and provide them to students to prepare before class.

- Organizing seminars, focusing on organizing group study and guiding students to make essays, projects, lecturers to determine transmission methods; giving presentations in class, guiding discussions, solving problems in class, in the lab, in the lab, and guiding students in harvest writing.

- Pay attention to developing students' self-study and self-research abilities throughout the teaching process and guide internships and practices.

- Attention should be paid to the logic of imparting and acquiring blocks of knowledge, prescribing prerequisite modules of compulsory modules and preparing teachers to meet the requirements of teaching elective modules.

8.3 For students

- Consult your academic advisor to select modules to suit your progress. You must study the lesson yourself before going to class to easily absorb the lecture. Adequate class time must be ensured to listen to the lecturer's instructions. Self-discipline in self-study and self-research, at the same time actively participating in group learning, and attending all seminars.

- Proactively and actively exploit resources online and in the school's library to serve self-study, self-research, and graduation projects. Strictly implement regulations on examination, examination, and evaluation.

- Regularly participate in mass and cultural activities to practice communication skills and understanding of society and people.

9. Material foundations and equipment for teaching and practice and internship

- Theoretical classroom system with traditional equipment, equipped with teaching support tools (Projector).

- Computer Labs are installed with software for basic informatics training, graphic application informatics, design application informatics, and process simulation applied informatics.

Rector

(Signature, full name, stamp)

Dr. NGUYEN VAN QUANG