# BACHELOR PROGRAM IN INFORMATION TECHNOLOGY

*Number of credits required: 130*

| Semester | Subjects | Number of credit |
|---|---|---|
| **1**<br>**19 credits** | **Core** | **19** |
| | Basic Principles of Marsism-Leninism 1 | 2 |
| | Basic Informatics | 3 |
| | English 1 | 3 |
| | Physical Education 1 – Athletics | |
| | General Physics A | 4 |
| | Linear Algebra | 3 |
| | Introduction to Programming | 2 |
| | Fundamentals of Law | 2 |
| **2**<br>**19 credits** | **Core** | **17** |
| | Basic Principles of Marsism-Leninism 2 | 3 |
| | English 2 | 4 |
| | Physical Education 2 | |
| | Programming Techniques | 3 |
| | Mathematical Analysis | 4 |
| | Computer Architectures | 3 |
| | **Elective** | **2** |
| | General Accounting | 2 |
| | General Economics | 2 |
| | Principles of Management | 2 |
| **3**<br>**18 credits** | **Core** | **13** |
| | Ho Chi Minh Ideology | 2 |
| | Physical Education 3 | |
| | Operating Systems | 3 |
| | Probability and Statistics | 3 |
| | Data Structures and Algorithms | 3 |
| | Research Methodology | 2 |
| | **Elective** | **5** |
| | Communication Skills | 2 |
| | Practice for Vietnamese Texts | 2 |
| | Optimizing | 3 |
| | Electrical Engineering | 3 |
| | Electronics Engineering | 3 |
| **4**<br>**19 credits** | **Core** | **16** |
| | Revolutionairy Strategies of Vietnam Communist Party | 3 |
| | Discrete Mathematics | 4 |
| | Computer Networks | 3 |
| | Relational Database | 3 |
| | Object-Oriented Programming | 3 |
| | **Elective** | **3** |
| | Algorithms Analysis and Design | 3 |

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|---|---|---|
| | Assembly Programming | 3 |
| | Computational Statistics | 3 |
| **5**<br>**15 credits** | **Core** | **12** |
| | Computer Graphics | 3 |
| | Network Administration | 3 |
| | Systems Analysis and Design | 3 |
| | Database Management Systems | 3 |
| | **Elective** | **3** |
| | Image Processing | 3 |
| | C# Programming Language | 3 |
| | Applied Graphics | 3 |
| **6**<br>**15 credits** | **Core** | **15** |
| | Artificial Intelligence | 3 |
| | Linux Operating System | 3 |
| | Web Designing and Programming | 3 |
| | Applied Java Programming | 3 |
| | Occupation Practicum | 3 |
| **7**<br>**15 credits** | **Elective Group** | **15** |
| | *Software Engineering Group* | |
| | Software Engineering | 3 |
| | UML Analysis and Design | 4 |
| | Software Project Management | 3 |
| | Design Patterns | 3 |
| | Software Testing | 2 |
| | *Computer Networks Group* | |
| | Network Security | 3 |
| | Network Design & Implement | 4 |
| | Network Programming | 3 |
| | Evaluation of Network Performance | 3 |
| | Multimedia Communications | 2 |
| | *Information System Group* | |
| | XML and Applications | 3 |
| | Distributed Database Systems | 3 |
| | Data Mining | 3 |
| | Information Security | 3 |
| | Web technologies and online services | 3 |
| **8**<br>**10 credits** | **Core** | **10** |
| | Geography Information System | 3 |
| | Open source software development | 3 |
| | General Practicum | 4 |