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| QUYNHON UNIVERSITY  **FACULTY OF INFORMATION TECHNOLOGY** | **SOCIALIST REPUBLIC OF VIETNAM**  **Independence - Freedom - Happiness** |

**COURSE OUTLINE**

**COURSE: BASIC INFORMATICS**

**Sector: Society**

**Course code: 1050241**

**1. General information about the course:**

**-** Course name: **Basic Informatics (Society)**

- Course code: **1050241** - Number of credits: **03**

**-** Course type: **Compulsory**

**-** Allocate credit hours for activities:

+ Listening to theoretical lectures: **24 periods**

+ Doing exercises in class: **06 periods**

+ Group discussion/presentation:

+ Practice, practice: **30 periods**

+ Group activities:

+ Self-study: **90 periods**

- Department/Faculty in charge of the module: **Faculty of Information Technology.**

**2. Course description**

The course updates new knowledge about Informatics in the era of Industry 4.0, digital transformation and typical applications of Informatics in the social sciences. From the information and practical operations of the subject, students can know, understand and apply new concepts and applications of Informatics used in the fields of social sciences, students can approach how to solve related problems through operations: organizing, storing, and processing data using available tools and applications of Microsoft.

**3. Course outcomes (COs)**

*- Knowledge*

**+ CO1.** Provide new knowledge about Informatics in the industrial age 4.0, argument transfer and specific applications for the group of social sciences.

**+ CO2.** Equip students with knowledge to be able to apply in solving related problems through the following operations: organizing, storing and processing data of the discipline with available tools and applications of Microsoft.

**+ CO3.** Equip students with knowledge to use computers, communicate with computers by advanced operations on Microsoft applications to organize, store, process and display data for given problems.

*- Skill*

**+ CO4.** Skilled in using Information Technology in practical work.

*- Level of autonomy and responsibility*

**+ CO5.** Having a serious study attitude, actively building lessons, actively absorbing knowledge, forming a serious attitude in learning and applying it to real work.

**4. Course Learning Outcomes**

| **Course**  **Outcomes**  **(COs)** | **Course Learning Outcomes (CLOs)** | | **Program Learning Outcomes**  **(PLOs)** | **Level of achievement** |
| --- | --- | --- | --- | --- |
| **Symbols** | **Description** |
| **Knowledge** | | | | |
| CO1 | CLO1 | Know and understand new knowledge about Informatics in the era of industry 4.0, the era of industry 4.0, the era of digital transformation. |  | M |
| CO2 | CLO2 | Know and understand the specific applications of Informatics for the social science group |  | M |
| CLO3 | Know and understand the requirements, preparation steps, input information, outputs of applications. |  | M |
| CLO4 | Understand the role of data. Use tools for simple manipulation of data. |  | M |
| CO3 | CLO5 | Understand and use computer communication language to use applications for work. |  | M |
| CLO6 | Understand and use information received from computers for professional work: Reporting, forecasting, statistics, data visualization. |  | M |
| **Skill** | | | | |
| CO4 | CLO7 | Know the importance and skills of using IT in practice. |  | M |
| **Level of autonomy and responsibility** | | | | |
| CO5 | CLO8 | Having a serious and proactive attitude in acquiring and using knowledge in learning and practical application. |  | M |

# 5. Materials for the subject

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| Main Syllabus: | [1]. Advanced IT Application Syllabus, University of Natural Sciences, Vietnam National University, Ho Chi Minh City, 2018 |
| Further references: | [2]. Central Institute for Economic Management, “Development of the digital economy”, 2018.  [3]. Ho Tu Bao, “Digital Transformation-Artificial Intelligence and Data Science”, John von Neumann Institute, City. Ho Chi Minh, 2018  [4]. Nguyen Truong Thang and authors, "Fundamental technologies in the 4th technological revolution and countermeasures of countries around the world", Institute of Information Technology - Academy of Science and Technology Vietnam, 2018.  [5] Ho Tu Bao, Digital transformation: Opportunities to create breakthroughs in national development, Tia Sang Magazine, 2019 |
| Other materials: |  |

**6. Methods and forms of teaching organization**

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| **Methods and forms of teaching organization** | **Purpose** | **CLOs** |
| Lectures | Provide students with the basic knowledge system of the subject in a scientific and logical manner. | CLO1-8 |
| Conversation, Q&A | Query the accumulated knowledge of students so that they can teach reasonable knowledge, supplement necessary knowledge for students, increase students' communication skills and presentation skills. | CLO1-8 |
| Exercise | Systematize the content learned and present the content in the form of real problems stated in exercise. | CLO3-6 |
| Practice | Solve problems in the discipline with the knowledge provided, use computers and tools provided to practice. | CLO3-6 |

# 7. Detailed teaching plan

| **Session** | **Content** | **CLOs** |
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| Session 1  (3 periods) | **Chapter 1: Informatics in the era of industry 4.0 and digital transformation**  1.1. Industrial Revolution 4.0 and digital transformation  1.2. The role of Informatics in Industry 4.0 | CLO1, 7-8 |
| Session 2  (3 periods) | **Chapter 1: Informatics in the era of industry 4.0 and digital transformation**  1.3. The role of Informatics in digital transformation, digital economy  1.4. Applications of Informatics in the digital economy | CLO1-2 |
| Session 3  (3 periods) | **Chapter 2. Advanced Word Processing Microsoft Word**  2.1. Set up the optimal working environment.  2.2. Advanced Format | CLO2-4 |
| Session 4  (3 periods) | **Practical Exercise 1:** Understand problem requirements and apply techniques to set up working environment, templates, create indexing tables as required. | CLO2-3, 7-8 |
| Session 5  (3 periods) | **Chapter 2. Advanced Word Processing Microsoft Word**  2.3. References and links | CLO2-3 |
| Session 6  (3 periods) | **Practical Exercise 2:** Apply techniques of marking, referencing, connecting and embedding data according to the requirements of the problem. | CLO2-3, 7-8 |
| Session 7  (3 periods) | **Chapter 2. Advanced Word Processing - Microsoft Word**  2.4. Fields and forms  2.5. Build forms in collaboration mode | CLO2-3 |
| Session 8  (3 periods) | **Practical Exercise 3:** Apply techniques related to data and forms according to the requirements of the problem. | CLO2-8 |
| Session 9  (3 periods) | **Practical Exercise 4:** Apply all the operations equipped for the format required by the problem. | CLO2-8 |
| Session 10  (3 periods) | **Chapter 3. Using Advanced Spreadsheets - Microsoft Excel**  3.1. Set up the optimal working environment  3.2. Data modeling with graphs  3.3. Linking, embedding, and loading external data | CLO4-8 |
| Session 11  (3 periods) | **Practical Exercise 5:** Learn the requirements of the application problem in Excel, apply the operations to set up the working environment, use the data modeling chart, link and embed data according to the requirements of the problem. | CLO4-8 |
| Session 12  (3 periods) | **Chapter 3. Using Advanced Spreadsheets - Microsoft Excel**  3.4. Analyze, sort and filter datau  3.5. Check data validity. | CLO4-8 |
| Session 13  (3 periods) | **Practical Exercise 6:** Use analysis, sort, and filter operations according to the requirements of the problem. | CLO4-8 |
| Session 14  (3 periods) | **Chapter 3. Using Advanced Spreadsheets - Microsoft Excel**  3.6. Edit and track changes  3.7. Exercise | CLO4-6 |
| Session 15  (3 periods) | **Practical Exercise 7:** Use data validation operations, track document changes in Excel. | CLO4-8 |
| Session 16  (3 periods) | **Practical Exercise 8:** Use all the provided operations to solve the given problem. | CLO4-8 |
| Session 17  (3 periods) | **Chapter 4. Data analysis and statistics on EXCEL**  4.1. Find out the problem request  4.2. Data organization  4.3. Import and store data  4.4. Processing the required data of the problem | CLO2-4, 7-8 |
| Session 18  (3 periods) | **Chương 4. Phân tích và thống kê dữ liệu trên EXCEL**  4.5. Process data according to the requirements of the problem  4.6. Using the output of data | CLO5-8 |
| Session 19  (3 periods) | **Practical Exercise 9:** Use all the equipped operations to solve according to the requirements of the problem. | CLO2-8 |
| Session 20  (3 periods) | **Practical Exercise 10:** Practice evaluation, analysis, and use results for practical applications. | CLO2-8 |

**8. Evaluation method**

Use a 10-point scale for all assessments in the course.

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| **No.** | **Evaluation form** | **Evaluation Criteria** | **Timing** | **CLOs** | **Weight** |
| 1 | Study process | The initiative, the level of active preparation of lessons and participation in activities during class time. Time required to attend class. | During the course of subject training | CLO7, 8 | 10% |
| 2 | Mid-term test | Students take an individual test, plus assessment of practice exercises. | Take the test in the middle of the training period of the module, summarize the assessment at the end of the course time | CLO1-4 | 20% |
| 3 | Final term  test | End-of-course exam;  Exam format: Questions and answers on the results of solving problems on computers. | End of course | CLO3-8 | 70% |

# 9. The lecturer information

# 9.1. Lecturer 1

* Full name:
* Title, academic title, academic degree:
* Email: Phone contact:

# 9.2. Lecturer 2

* Full name:
* Title, academic title, academic degree:
* Email: Phone contact:

# 10. General Regulations

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| Lecturer’s Commitment | Come to class on time, lecture in full and complete content, prepare all relevant documents to provide students; ready to support students in the learning process to ensure learning results. |
| Requirements for students | Fully prepare relevant documents, review the knowledge in previous prerequisite modules, attend lectures, do exercises, prepare lesson content in advance, participate actively in discussions in self-study or in class. |
| Rules for attending classes | Attending all classes, absent from school will be deducted points for attendance according to the corresponding proportion. |
| Rules of behavior in the classroom | Listen carefully to lectures and take notes, actively think, discuss to answer questions. |
| Academic regulations | Progress assessment score = Midterm test score.  Other rules comply with the training regulations of the School. |
| Other regulations |  |

*Binh Dinh, April 4th , 2022*

**COMPILER HEAD OF MAJOR THE DEAN**

**THE PRINCIPAL**