

## Course (RQ01007): Applied Infomatics

### 1. General information

- Term: 3
- Credits: **Total credits 2 (Lecture: 1 – Practice: 1)**
- **Self-study: 6** credits
- Credit hours for teaching and learning activities: 90 hrs
- Self-study: 90 hrs.
- Department conducting the course:
  - Department: Software Engineering
  - Faculty: Information Technology
- Kind of the course:

Foundation <input type="checkbox"/>		Fundamental <input type="checkbox"/>		Option <input checked="" type="checkbox"/>	
Compulsory <input type="checkbox"/>	Elective <input type="checkbox"/>	Compulsory <input type="checkbox"/>	Elective <input type="checkbox"/>	Compulsory <input checked="" type="checkbox"/>	Elective <input type="checkbox"/>

- Prerequisite course(s): None

### 2. Course objectives and expected learning outcomes

#### \* *Course objectives:*

- Knowledge: Course provided for students with knowledge in IT such as computer networks, computer software, and the MS Office suite. Students have knowledge to recognize the components in computer structure and computer network, explain the principles of computer operation, distinguish different types of computer software, apply IT for their job.
- Skills: Course provide students with skills in using Internet services to manage, store, and communicate in a network environment. In addition, they also practice skills in using MS Word, MS PowerPoint, MS Excel for their career.
- Attitude: Course provide students with attitudes in learning, being ready to study when have the opportunity and making contributions during the course.

#### \* *Course expected learning outcomes*

Notation	Course expected learning outcomes After successfully completing this course, students are able to	PLO performance criteria
<b>Knowledge</b>		
CELO1	Apply some knowledges of information technology: hardware, software, Internet services, office (MS PowerPoint, MS Word, MS Excel) to effectively solve tasks such as: using computers. search, communication, cloud data storage, design, word processing, presentation, calculation and data analysis	3.1
<b>Skills</b>		
CELO 2	Proficiently Use/ implement the internet services for professionals related to IT	5.5
CELO 3	- Proficiently Use Internet services and MS Excel for searching, storage, communication and data analysis	8.2

CELO 4	Effectively use the MS Office software suite for communication and professional tasks.	5.6
<b>Attitude</b>		
CELO 5	Showing a serious and positive study attitude, being willing to learn when having the opportunity to study, fostering knowledge and capacity.	10.2

### 3. Course description

Brief description of the course: This course consists of 7 chapters: Introduction; Computer architecture; Computer software and operating system; Computer networks and the Internet; MS Word; MS PowerPoint and MS Excel.

### 4. Teaching and learning & assessment methods

CELOs	CELO1	CELO2	CELO3	CELO4	CELO5
<b>Teaching and learning</b>					
Lecturing	x				x
Teaching through practical work		x	x	x	x
<b>Assessment</b>					
Rubric 1. Assignments (10%)					x
Rubric 2. Practical (40%)			x	x	
Rubric 3. Final exam (50%)	x				

### 5. Student tasks

- Attendance: All students must attend class for at least 75% of class hours
- Prepare before lessons: All students must prepare lessons before starting the lesson
- Assignment: All students must complete assignments
- Practice in Lab: All students must complete lab exercises
- Mid-term exam and the final exam: All students must attend Mid-term exam and final exam Student will be graded 0 if missing the midterm exam or the final exam.

**Tasks of students when must be studying online:** Student have do 5 tasks which mentioned above. In addition, student have to do the following tasks:

- ✓ When attending class, students must be dress formal clothes
- ✓ When attending class, students must turn off all mics. when students want to discuss with the lecture, students can turn on mic.
- ✓ Students do not leave the class without the consent of the lecturer

### 6. Text books and references

**\* Text Books/Lecture Notes:**

1. Phạm Quang Dũng (2021). Giáo trình Tin học đại cương. NXB Nông nghiệp
2. Ngô Công Thắng, Lê Thị Nhung (2021), Công nghệ thông tin ứng dụng trong Kinh tế xã, NXB Học viện Nông nghiệp.

**\* Additional references:**

1. June Jamrich Parsons, Dan Oja (2013). Computer Concepts. Course Technology, Cengage Learning.
2. IIG Viet Nam (2020). Microsoft Office Excel 2016. NXB Tổng hợp Thành phố Hồ Chí Minh.

## 7. Course outline

Week	Content	Course expected learning outcome
1	<b>Chapter 1: Introduction</b>	
	<b>A/ Main contents: (3 periods)</b> <b>Theory: (3 periods)</b> 1.1. Introduction to concepts of IT <ul style="list-style-type: none"> <li>1.1.1. Information</li> <li>1.1.2. Data</li> <li>1.1.3. Information Technology</li> <li>1.1.4. Computing and cloud storage</li> <li>1.1.5. Industry 4.0</li> </ul> 1.2. Prepresenting data in a computer <ul style="list-style-type: none"> <li>1.2.1. Number systems</li> <li>1.2.2. Converting between number systems</li> <li>1.2.3. Information representation in computers</li> <li>1.2.4. Operations in the binary number system</li> </ul> 1.3. Data encoding <ul style="list-style-type: none"> <li>1.3.1. Concepts</li> <li>1.3.2. ASCII and Unicode code</li> </ul> 1.4. Application of information technology	K1
	<b>B/ Self- study contents: (9 periods)</b> Students review the knowledge they have learned in class and do assignments	K1,K5
2	<b>Chapter 2: Computer Architecture</b>	
	<b>A/ Main contents: (3 periods)</b> <b>Theory:</b> 2.1. Introduction 2.2. Function of computer and diagram of the computer organization <ul style="list-style-type: none"> <li>2.2.1. Function of computer</li> <li>2.2.2. Principles of computer operation</li> <li>2.2.3. Diagram of the computer organization</li> </ul> 2.3. The basic component of computer <ul style="list-style-type: none"> <li>2.3.1. CPU</li> <li>2.3.2. Memory</li> <li>2.3.3. Input and Output (I/O)</li> </ul>	K1

	<b>B/ Self- study contents: (6 periods)</b> Students review the knowledge they have learned in class	K1,K5
3	<b>Chapter 3: Software and operating system</b>	
	<b>A/ Main contents: (3 periods)</b> <b>Theory:</b> 3.1. Software 3.1.1. Definitions of software 3.1.2. Classification of computer software 3.1.3. Software development process 3.1.4. Open source software 3.2. Operating system 3.2.1. Definitions of operating system 3.2.2. The history of operating system 3.2.3. Classification of operating system 3.2.4. Some basic operating systems 3.2.5. Data management at external memory	K1
	<b>B/ Self- study contents: (9 periods)</b> Students review the knowledge they have learned in class	K1,K5
4	<b>Chapter 4: Computer networks and the Internet</b>	
	<b>A/ Main contents: (4.5 periods)</b> <b>Theory (3 periods)</b> 4.1. Computer networks 4.2. The Internet 4.3. Some basic services of the Internet 4.3.1. WWW 4.3.2. Email 4.3.3. Some services of Google <b>Practice in Lab (1.5 periods) :</b> - Email - Search - Cloud data storage - Google doc, Google Sheet, Google form	K2, K3
	<b>B/ Self- study contents: (9 periods)</b> Students review the knowledge they have learned in class	K2,K3,K5
5	<b>Chapter 5: MS Word</b>	

	<p><b>A/ Main contents:</b> (3 periods)</p> <p><b>Theory:</b> (1 periods)</p> <p>5.1. Introduction</p> <p>5.2. Some standard rules of word processing</p> <p>5.3. Document formatting</p> <p>5.4. Insert and manage object</p> <p>5.5. Page setup</p> <p>Practice in Lab (2 x 2=4 periods)</p>	K1,K4
	<p><b>B/ Self- study contents:</b> (9 periods)</p> <p>Students review the knowledge they have learned in class and do assignments</p>	K1,K4,K5
	<p><b>Chapter 6: MS PowerPoint</b></p>	
6	<p><b>A/ Main contents:</b> (2.5 periods)</p> <p><b>Theory:</b> (1 periods)</p> <p>6.1. Introduction</p> <p>6. 2. Some standard rules of presentations</p> <p>6. 3. Create and manage slides</p> <p>6. 4. Slides show</p> <p>6. 5. Slide Master and Handouts</p> <p>6. 6. Page setup</p> <p>Practice in Lab (1.5 x 2= 3 periods) :</p>	K1
	<p><b>B/ Self- study contents:</b> (7.5 periods)</p> <p>Students review the knowledge they have learned in class and do assignments</p>	K1,K5
	<p><b>Chapter 7: MS Excel</b></p>	
7	<p><b>A/ Main contents:</b> (12.5 periods)</p> <p><b>Theory:</b> (2 periods)</p> <p>7.1. Introduction</p> <p>7.2. Data types in Excel</p> <p>7.3. Calculations on data</p> <p>7.4. Formatting</p> <p>7.5. Database in Excel</p> <p>7.6. Charts in Excel</p> <p>7.7. Data Analysis in Excel</p> <p><b>Practice in Lab</b> (10.5 periods x 2 = 21 periods)</p> <ul style="list-style-type: none"> <li>- Creat worksheet, calculations and Formulas</li> <li>- Reorder, summarize data, analysis data and chart</li> <li>- Mid-term exam</li> </ul>	K1,K3,K4
	<p><b>B/ Self- study contents:</b> (37.5 periods)</p> <p>Students review the knowledge they have learned in class and do assignments</p>	K1,K3,K4,K5

