



UNIVERSITY OF  
**PATRAS**  
ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΩΝ

DEPARTMENT OF PHARMACY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY OF PATRAS  
SCHOOL OF HEALTH SCIENCES  
DEPARTMENT OF PHARMACY  
UNDERGRADUATE STUDIES' COURSES



COURSE DESCRIPTION: **INFORMATICS**  
COURSE CODE: **PHA-A15-NEW**

**INFORMATICS  
COURSE DESCRIPTION**

**1. GENERAL**

<b>SCHOOL</b>	HEALTH SCIENCES		
<b>DEPARTMENT</b>	PHARMACY		
<b>LEVEL OF COURSE</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	PHA-A15-NEW	<b>SEMESTER</b>	1st
<b>COURSE TITLE</b>	INFORMATICS		
<b>INDEPENDENT TEACHING ACTIVITIES</b>		<b>TEACHING HOURS PER WEEK</b>	<b>ECTS CREDITS</b>
Lectures		2	6
Tutorial		1	
Laboratory work		4	
<b>COURSE TYPE</b>	General Background Course		
<b>PREREQUISITE COURSES:</b>	-		
<b>TEACHING AND ASSESSMENT LANGUAGE:</b>	Greek		
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS</b>	Not offered		
<b>COURSE WEBPAGE (URL)</b>	<a href="http://www.pharmacy.upatras.gr/images/DS/PHA-A15-EN.pdf">http://www.pharmacy.upatras.gr/images/DS/PHA-A15-EN.pdf</a>		

**2. LEARNING OUTCOMES**

<b>Learning outcomes</b>
<p>Understanding of basic principles of information systems and their applications.  Basic structures of the information systems used in the health and the application of the electronic health record.  Basic principles of databases and their applications in health, coding and classification of medical information.  Learning of basic principles of computer networks, their applications and protection in internet.  Understanding of basic principles of the medical signals and their digital processing for the export of diagnostic information.  Learning of computer's software regarding word processing, spreadsheets calculations and presentation.  Learning of computer's software regarding processing of experimental data.  Learning of the use of Internet and the safe navigation.</p>
<b>General Abilities</b>
<ol style="list-style-type: none"> <li>1. Retrieve, analyze and synthesize data and information, using the necessary technologies</li> <li>2. Adapt to new situations</li> <li>3. Independent work</li> </ol>

### 3. COURSE CONTENT

Information systems  
 Information systems in Health Sciences  
 Electronic Health Record  
 Databases  
 Coding and classification of medical information  
 Computer networks  
 Digital processing of medical signals and pictures  
 Introduction to Excel and the processing of experimental data  
 Word processing (Word)  
 Creating presentations (Powerpoint)  
 Internet browsers and email  
 Security of computers

### 4. TEACHING AND LEARNING METHODS - ASSESSMENT

<b>TEACHING METHOD</b>	In class and in laboratory training	
<b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES</b>	Support of learning process through the online platform e-class, software for processing of experimental data and software regarding word processing, spreadsheets calculations and presentation.	
<b>TEACHING ORGANIZATION</b>	<b>Teaching Method</b>	<b>Semester Workload</b>
	Lectures	26
	Practical Lab Exercises	20
	Group class for data processing	20
	Autonomous study	71
	<b>Total number of hours for the Course (25 hours of work-load per ECTS credit)</b>	<b>150</b>
<b>STUDENT ASSESSMENT</b>	1. Written final exam (40%) including <ul style="list-style-type: none"> <li>• Questions of brief development</li> <li>• Judgment questions</li> </ul> 2. Laboratory exercises (60%) including <ul style="list-style-type: none"> <li>• Exam in basic office applications (Word, Excel, Powerpoint) and in processing of experimental data</li> </ul>	

### 5. RECOMMENDED LITERATURE

#### **Suggested Books**

1. Vlachopoulos Georgios & Klepetsanis Pavlos, Application of Informatics in Health Sciences, Publisher Vlachopoulos Georgios, 1st edition, 2012. (in Greek)
2. Manta John, Introduction to Informatics, Broken Hill Publishers, 1st edition, 2007. (in Greek)
3. Lister Andrew M. Introduction to Modern Computer Science, Publisher DIAVLOS S.A. Books Publisher, 5<sup>th</sup> edition, 2000. (in Greek)