

## COMPUTING APPS - INTERNET

**Code number: NP18-17**

**Cycle:** Undergraduate

**Semester:** 1<sup>st</sup>

**Course type**

	Background/General knowledge
X	Scientific area (Computing Apps - Internet in Pharmacy)

**Credit Units (ECTS): 4**

**Lectures (hours/week): 2**

**Tutorial (hours/week):**

**Laboratory work (hours/week):**

**Course coordinator:**

**Dionysios Politis, Assistant Professor**

**Tutor (s):**

**Dionysios Politis, Assistant Professor**

Room 4.15/ 4<sup>th</sup> floor Glass Building 22.C/School of Sciences

Collaboration with students: Thursday 11-1, Friday 4-6.

Communication: 2310-998406, e-mail (dpolitiscsd.auth.gr)

**Assisting personnel:**

**Dr. Georgios Kyriafinis, PhD, Invited Lecturer**

1<sup>st</sup> ENT Clinic, Cochlear Implantation Center, AHEPA University Hospital

**Georgia Theochari, MSc, Technical Support**

Room H9, Mezzanine Floor, Biology/Pharmacy building.

Collaboration with students: Every day 12-2.

Communication: 2310-998164, e-mail (gtheocha@csd.auth.gr)

**Aims of the course:**

This course is addressed to 1<sup>st</sup> semester young pharmacy students to be acquainted with

- computers' structure and operation
- software essentials concerning Operating Systems, Processing over the Cloud, Spreadsheets' Statistical calculations and presentations
- operating computer Hardware and Software for Medical and Pharmaceutical applications
- Learning the foundations of Internet-based computability for the Health sector

**Skills:**

The course aims to homogenize the knowledge of first year students with regard to the use of computer systems and the management of information according to Computer Science methods and principles.

**Teaching methods:** Lectures, Invited Lectures, Videolessons, Laboratory exhibitions

**Contents of the course:**

**Tutors:**

**1) Dionysios Politis**

Introduction

The beginnings: from Mainframes to Personal Computing

The evolution of species: Mobile Computing

Internet and the Cloud

Statistical Modeling, Regression Analysis, Medical Methodologies

**2) Dr. Georgios Kyriafinis** (Invited Lecturer)

Pharmaceutical treatment, prosthetics and implants: Quality of Life indices and metrics in Speech Communication.

Computers and Applications for Remote Fitting

Rehabilitation, Treatment and Special Education

**3) Georgia Theochari**

Administering Hybrid Learning in the Covid-19 era

**Proposed literature:**

**J. Glenn Brookshear**

Computer Science: An Overview, Pearson Education, 10<sup>th</sup> Ed. (In Greek translation from Klidarithmos Publications, Athens, 2011)

**Behrouz A. Forouzan**

Foundations of Computer Science, Cengage, 4<sup>th</sup> n Ed. (In Greek translation from Klidarithmos Publications, Athens, 2015)

**G. Pangalos**

Εισαγωγή στην πληροφορική και τον προγραμματισμό, 3<sup>rd</sup> Ed., Kyriakidis Publications, Thessaloniki, 2015.

**Educational activities:** Lectures, discussion with the students in every lecture, e-Tests

**Evaluation process and methods:**

This course applies a hybrid learning model in a 70% - 30% ratio.

70% of the course material is presented in the form of ex-cathedra teaching in the laboratory (PC Lab). For the Academic Year 2020-21 provision has been taken to offer videolessons and Distance Learning Interaction due to the Covid-19 restrictions imposed on educational practices.

The attendants are required to present bibliographical essays (at least 1) and demonstrate a project, based on programming languages and techniques.

Already since the the previous year 30% of the teaching is offered via electronic media and includes:

- Electronic Tests (at least 2) using Aristotle University's (AUTH) VLE @ <http://elearning.auth.gr>
- Electronic Submission of exercises and/or assignments
- Participation in the Fora and Wikis that AUTH offers over the Internet.

**Use of TIC / Electronic distribution of the lectures**

Lectures, videolessons, e-Tests duly presented via AUTH's Distance Learning hub (<http://elearning.auth.gr>, <http://it.auth.gr>)

**Teaching:** Scheduled topics include - but are not limited - to the following

Lecture	Title	Tutor
1	Introduction Brief course description How hybrid learning is to be performed in practice	D. Politis

<b>2</b>	How computers work: A fascinating story Interacting in remote mode: Teaching methodologies during pandemics	D. Politis G. Theochari
<b>3</b>	Binary logic, gates, processors	D. Politis
<b>4</b>	Operating Systems	D. Politis
<b>5</b>	Mobile Computing: A game changer	D. Politis
<b>6</b>	Internet Computing: From the WWW humble beginnings to the ever pervasive Cloud services	D. Politis
<b>7</b>	Remote Fitting: Medical practices over distance	D. Politis G. Kyriafinis
<b>8</b>	Algorithms, Languages, Systems e-Test 1	D. Politis G. Theochari
<b>9</b>	Software Engineering: the basics	D. Politis
<b>10</b>	Data Bases and Spreadsheets	D. Politis
<b>11</b>	Statistics: Regression Analysis	D. Politis
<b>12</b>	Artificial Intelligence and Machine Learning Apps	D. Politis
<b>13</b>	Future trends e-Test 2	D. Politis G. Kyriafinis G. Theocha

**Lectures.** Lectures (13 of 2 hours each) are given in the H5 room PC Lab (Mezzanine floor, Biology/Pharmacy building). Distance Learning alternative is offered as well.

B) Laboratory work: Included with hands-on teaching in certain lectures. The Remote Learning alternative is highly suggested for the 2020-21 Fall Semester.