STUDIES IN DIGITAL SYSTEMS
INVESTMENT ON KNOWLEDGE OF DIGITAL SYSTEMS
Presentation Overview

- Location of the Department’s premises
- The Department in a Nutshell
- Studies and Education: Offered in the context of the Department
  - Curricula
  - Undergraduate Studies
    - Professional Rights
  - Postgraduate studies and research
  - PhD Studies
  - Postdoctoral Studies
- Administration and Human Resources
Location of the premises

University of Piraeus
Department of Digital Systems
80, Karaoli & Dimitriou Str.,
P.O. 18534, Piraeus
Location of the premises
The Department in a Nutshell

The **Department of Digital Systems** of the **University of Piraeus** was established in 1999. It covers important areas of the Digital Science and Technology field and is divided in two areas of study:
1. e-Services
2. Communication Systems and Networks

The Department housed in its very own building and situated at 150 Androutsou Str., provides (6) fully equipped Computer Labs with a capacity of one hundred and sixty (160) people for its undergraduate and postgraduate students. In the Labs, state-of-the-art, steadily enriched and upgraded, equipment (both physical equipment and software) is provided.
What we offer: Curricula

Undergraduate Programme

- TECHNO-ECONOMIC MANAGEMENT
- APPLICATION LEVEL e(d)-services
- NETWORK LEVEL Digital Services
- PHYSICAL LEVEL Wireless & Optical
- INFRASTRUCTURE

SYSTEMS SECURITY


Postgraduate Programme in “Digital Systems and Services”
What we offer: Undergraduate Programme

The department of Digital Systems offers a four-year undergraduate programme in “Digital Systems” of 240 credits of the European Credit Transfer and Accumulation System (ECTS).
What we offer: Undergraduate Studies

Undergraduate Programme in “Digital Systems”

Areas of study

Communication Systems and Networks
Emphasizing on cutting-edge and upcoming wired and wireless broadband technologies, Internet and other telecommunications infrastructure.

e-Services
Emphasizing on Digital Services, such as:
What we offer: Undergraduate Studies

The individual courses offered by the Undergraduate Programme are divided into the following types:

- **Core**
  - Core [C]

- **Major**
  - Compulsory Major
    - Electronic Services [CC-ES]
  - Compulsory Major
    - Communication Systems and Networks [CC-CSN]

- **Optional**
  - Optional Major
    - Electronic Services [OC-ES]
  - Optional Major
    - Communication Systems and Networks [OC-CSN]

- **Seminars [S]**
What we offer: Undergraduate Studies

Courses

1st Year
- Core Courses
  - 1st Semester
    - Mathematical Analysis I
    - Linear Algebra
    - Mathematical Logic
    - Probability Theory
    - Computer Architecture
    - C Programming
    - Instructional Methods
  - 2nd Semester
    - Mathematical Analysis II
    - Discrete Mathematics
    - Statistics
    - Stochastic Processes
    - Operating Systems I
    - Object-Oriented Programming
    - Systems Analysis and Design
- Majors
  - Communication Systems and Networks [CC-CSN]
  - Compulsory Major Course
  - Optional Major Course
  - Electronic Services

2nd Year
- Core Courses
  - 3rd Semester
    - Operating Systems II – UNIX
    - Introduction to Telecommunications
    - Data Structures
    - Software Engineering
    - Human – Computer Interaction
    - Information Theory
  - 4th Semester
    - Algorithms and Complexity
    - Distributed Systems
    - Computer Networks I
    - Multimedia Technology
    - Database Systems Design
    - Web Programming

Student Placement
Final Year Project
Benefits for the graduates of the Department of Digital Systems

The graduates enjoy fully registered “Professional Rights of Engineers and Graduates of University Education in the fields of Informatics and Telecommunications” (registered in the Greek Law Π.Δ. 44/2009 (ΦΕΚ 58/Α’/8-4-2009)).

The Department falls under the “professorial” schools category (according to the article 39 of the Greek Law v. 3794/2009 (ΦΕΚ 156/Α’/4-9-2009)). Therefore, graduates can be appointed as teaching staff of the ΠΕ19 teaching branch without needing to obtain any additional degree or pedagogical training certificate.
The Undergraduate Programme has been designed to prepare scientists capable of:

- Dealing with complex systems design problems
- Developing cutting-edge digital technology systems
- Applying state-of-the-art digital technology systems
- Staffing IT and telecommunications companies
- Research (Greece and abroad)
What we offer: Postgraduate Studies and Research

Postgraduate Programmes in “Digital Systems”

“Digital Systems and Services”
Running from the academic year 2004-2005.
Leading to a Master’s Degree (M.Sc.) of 90 ECTSs.

“Techno-economic Management and Digital Systems Security”
Running from the academic year 2009-2010.
Leading to a Master’s Degree (M.Sc.) of 90 ECTSs.
What we offer: Postgraduate Studies and Research

Postgraduate Programmes in “Digital Systems”

“Digital Systems and Services”
(YA 159873/Β7-ΦΕΚ 2773/Β' /16-10-2014)

“Techno-economic Management and Digital Systems Security”
(YA 159888/Β7-ΦΕΚ 2730/Β' /13-10-2014)
What we offer: Postgraduate Studies and Research

Postgraduate Programmes in “Digital Systems”

Areas of Study

“Digital Systems and Services”
- e-Learning
- Network-Oriented Information Systems
- Digital Communications and Networks

“Techno-economic Management and Digital Systems Security”
- Techno-economic Management of Digital Systems
- Digital Systems Security
What we offer: Postgraduate Studies

Postgraduate Programme in “Digital Systems and Services”

Studies

1st Semester

2nd Semester

3rd Semester

Master Thesis

Potential to complete Thesis:

- in collaboration with Universities or Research Institutes abroad, through the LLP Erasmus Programme

- in collaboration with Greek enterprises, through the University of Piraeus Postgraduate Practice Programme
### Postgraduate Programme in “Digital Systems and Services”

#### What we offer: Postgraduate Studies

**Area of Study “e-Learning”**

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<thead>
<tr>
<th></th>
<th><strong>1st Semester</strong></th>
<th><strong>ECTS</strong></th>
<th><strong>2nd Semester</strong></th>
<th><strong>ECTS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Title</strong></td>
<td><strong>Human – Computer Interaction</strong></td>
<td>7,5</td>
<td><strong>Learning Management System</strong></td>
<td>7,5</td>
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<tr>
<td><strong>Course Title</strong></td>
<td><strong>Educational Design</strong></td>
<td>7,5</td>
<td><strong>e-Trainers Training</strong></td>
<td>7,5</td>
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<tr>
<td><strong>Course Title</strong></td>
<td><strong>Web Applications</strong></td>
<td>7,5</td>
<td><strong>Learning Processes Management</strong></td>
<td>7,5</td>
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<tr>
<td><strong>Course Title</strong></td>
<td><strong>Learning Theories and Teaching Models</strong></td>
<td>7,5</td>
<td><strong>Life Long Learning</strong></td>
<td>7,5</td>
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#### 3rd Semester

<table>
<thead>
<tr>
<th><strong>Course Title</strong></th>
<th><strong>MSc Dissertation</strong></th>
<th><strong>ECTS</strong></th>
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<tr>
<td><strong>Course Title</strong></td>
<td><strong>MSc Dissertation</strong></td>
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</tbody>
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## What we offer: Postgraduate Studies

Postgraduate Programme in “Digital Systems and Services”

### Area of Study “Network-Oriented Information Systems”

<table>
<thead>
<tr>
<th>Course Title</th>
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<th>Course Title</th>
<th>ECTS</th>
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<tbody>
<tr>
<td>1st Semester</td>
<td></td>
<td>2nd Semester</td>
<td></td>
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<tr>
<td>Business Process Management</td>
<td>7,5</td>
<td>Cloud Computing</td>
<td>7,5</td>
</tr>
<tr>
<td>Information Systems and Services</td>
<td>7,5</td>
<td>Mobile Computing and Applications</td>
<td>7,5</td>
</tr>
<tr>
<td>Service-Oriented Architectures</td>
<td>7,5</td>
<td>Big Data and Analytics</td>
<td>7,5</td>
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<tr>
<td>Data Management and Business Intelligence</td>
<td>7,5</td>
<td>Information Systems Governance</td>
<td>7,5</td>
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<tr>
<td>3rd Semester</td>
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<tr>
<td>MSc Dissertation</td>
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</tbody>
</table>
What we offer: Postgraduate Studies

Postgraduate Programme in “Digital Systems and Services”

<table>
<thead>
<tr>
<th>Area of Study “Digital Communications and Networks”</th>
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</thead>
<tbody>
<tr>
<td><strong>1st Semester</strong></td>
</tr>
<tr>
<td><strong>Course Title</strong></td>
</tr>
<tr>
<td>Future Internet Infrastructures</td>
</tr>
<tr>
<td>Wireless and Satellite Communications</td>
</tr>
<tr>
<td>Mobile Computing and Applications</td>
</tr>
<tr>
<td>Computer Networks Design and Management</td>
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</tbody>
</table>

| **3rd Semester**                                   |                                             |
| MSc Dissertation                                   | 30                                         |
What we offer: Postgraduate Studies

Postgraduate Programme in “Techno-economic Management and Digital Systems Security”

Studies

1\textsuperscript{st} Semester

2\textsuperscript{nd} Semester

3\textsuperscript{rd} Semester

Master Thesis

Potential to complete Thesis:

- in collaboration with Universities or Research Institutes abroad, through the LLP Erasmus Programme
- in collaboration with Greek enterprises, through the University of Piraeus Postgraduate Practice Programme
## What we offer: Postgraduate Studies

**Postgraduate Programme in “Techno-economic Management and Digital Systems Security”**

**Area of Study “Techno-economic Management of Digital Systems”**

<table>
<thead>
<tr>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td><strong>1st Semester</strong></td>
<td></td>
<td><strong>2nd Semester</strong></td>
<td></td>
</tr>
<tr>
<td>Business, Regulatory and Legal Framework of Telecommunication Networks and Services</td>
<td>6</td>
<td>Strategic Management of Digital Companies</td>
<td>6</td>
</tr>
<tr>
<td>Managerial Accounting</td>
<td>6</td>
<td>Advanced Information Systems</td>
<td>6</td>
</tr>
<tr>
<td>Advanced Telecommunication Technologies</td>
<td>6</td>
<td>Network-Oriented Informational Systems’ Governance</td>
<td>6</td>
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<tr>
<td>Network-Centric Systems and Services</td>
<td>6</td>
<td>Managerial Finance</td>
<td>6</td>
</tr>
<tr>
<td>Technoeconomic Analysis</td>
<td>6</td>
<td>Marketing of Digital Products and Services</td>
<td>6</td>
</tr>
<tr>
<td><strong>3rd Semester</strong></td>
<td></td>
<td><strong>MSc Dissertation</strong></td>
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# What we offer: Postgraduate Studies

Postgraduate Programme in “Techno-economic Management and Digital Systems Security”

## Area of Study “Digital Systems Security”

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<tr>
<th>Course Title</th>
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<th>2nd Semester</th>
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</thead>
<tbody>
<tr>
<td>Network Security</td>
<td>6</td>
<td>Mobile Internet Security</td>
<td>6</td>
<td></td>
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<tr>
<td>Security Management</td>
<td>6</td>
<td>Digital Forensics and Web Security</td>
<td>6</td>
<td></td>
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<tr>
<td>Security Assessment and Vulnerability Exploitation</td>
<td>6</td>
<td>Legal Aspects of Security</td>
<td>6</td>
<td></td>
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</tr>
<tr>
<td>Applied Cryptography</td>
<td>6</td>
<td>Privacy Enhancing Technologies</td>
<td>6</td>
<td></td>
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<tr>
<td>Information Systems Security</td>
<td>6</td>
<td>Advanced Security Technologies</td>
<td>6</td>
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### 3rd Semester

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<tr>
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<td>MSc Dissertation</td>
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<td>30</td>
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</tbody>
</table>
What we offer: PhD Studies

 ✓ The holders of a Master (M.Sc.) degree are eligible for applying to conduct a doctoral thesis.

Requirements

A Degree or Certificate obtained from the Highest Educational Institutions (A.E.I.), or an equivalent qualification obtained abroad, and recognized by DOATAP.

Certificate verifying sufficient knowledge of the English language.
What we offer: PhD Studies

- Network-Oriented Systems and Services
- Digital Health Services
- Telecommunication Networks and Integrated Services
- Security Systems
- Intelligent Systems and Multimedia Technologies
- Telecommunication Systems
- Technology – Enhanced Learning
What we offer: Postdoctoral Research

- The Department of Digital Systems of the University of Piraeus offers to PhD graduates (of Greek or foreign Universities) the opportunity to conduct their post-doctoral research in collaboration with the members of the Department.

- Through postdoctoral research the Department achieves collective excellence, as well as high level scientific collaboration, while international distinction both for the Department and the University in general is promoted.

- Therefore, postdoctoral research contributes to the quantitative and qualitative upgrade of research in the Department and the transfer of knowledge to cutting-edge and dynamic research areas for the benefit of society and national economy.
Laboratories

- Network-Oriented Systems and Services
- Digital Health Services
- Telecommunication Networks and Integrated Services
- Systems Security
- Telecommunication Systems
- Technology-Enhanced Learning
Administration

General Assembly
The General Assembly (G.A.) of the Department consists of all the Teaching and Research Staff members, as well as representatives of undergraduate and postgraduate students of the Department. The representatives of the Special Teaching Staff (S.T.S.) and the Special Administrative Technical Staff (S.A.T.S) of the Department also participate in the General Assembly (G.A.).

General Assembly-Special Composition
The General Assembly of Special Composition (G.A.S.C.) of the Department consists of all of the Teaching and Research Staff members as well as representatives of the graduate students of the Department.

Chairman and Deputy Chairman
The Chairman and Deputy Chairman get elected by a special body of electors every two years in compliance with current legislation.

The Department’s Chairman is Professor Panagiotis Demestichas, since September 2011.
Department Workforce

26 Academic Staff members (Professors, Associate Professors, Assistant Professors and Lecturers) specializing in a wide array of specific digital technologies and services areas.

Indicative Areas of the Department’s Academic Staff Specialization include:
For more information please visit: http://www.ds.unipi.gr/en/