The Department of Information and Communication Systems Engineering is one of the pioneering departments of the University of the Aegean.

It has been designed and operates so as to offer high quality courses, within a creative environment, with emphasis on the connection of studies with practical application and research.

This guide contains all the necessary information for current, as well as future students of the Department.
## University of the Aegean

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## Department of Information and Communication Systems Engineering

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The establishment of the University of the Aegean is the realization of an idea of the great Greek mathematician Constantine Caratheodory. The University of the Aegean was founded in 1984 and is one of the newest universities in Greece. Today, having completed the second phase of its development with sixteen (16) academic Departments, forty (40) Postgraduate Programs and seventeen thousand (17,000) undergraduate and graduate students, the University of the Aegean ranks among the largest universities in the country.

Administrative headquarters of the University is Mytilene, while various departments have been established in towns of the islands of Lesvos (Mytilene), Chios (Chios), Samos (Karlovasi), Rhodes (Rhodes), Syros (Ermoupolis) and Lemnos (Myrina), forming a University-network covering both the administrative divisions of the Aegean (North and South Aegean).
The University of the Aegean, with its spatial dispersion, aims to provide modern scientific education and to promote high quality basic and applied research. Keeping a flexible, non bureaucratic, organizational structure, it has established high standards for the scientific level of both its graduates, and the research and teaching staff.

The main feature of the Departments of the University is the development of innovative disciplines, often interdisciplinary, which meet the needs of modern Greek and international society, as well as the demands and expectations of students for studies of high scientific value, combined with excellent prospects for career development.

The University of the Aegean is growing steadily and methodically, according to the Strategic Plans and the Five-Year Development Plans prepared. These plans reflect the experiences gained both from the operational difficulties of academic departments on border islands and the communication within a University-network, which operates under the particular conditions of the Greek Archipelago. These experiences led the University of the Aegean to be the first Greek University that fully integrates the information and communication technologies in everyday broad administrative practice, thereby creating the conditions of development of a Society of Information and Knowledge.
## Schools and Departments

Currently the University of the Aegean comprises the following sixteen (16) Departments and Schools:

**School of Sciences (Samos)**
- Dept. of Information and Communication Systems Engineering*
- Dept. of Mathematics
- Dept. of Product and Systems Design Engineering (Syros)*

**School of Social Sciences (Lesvos)**
- Dept. of Social Anthropology and History
- Dept. of Geography
- Dept. of Sociology
- Dept. of Cultural Technology and Communication

**School of the Environment (Lesvos)**
- Dept. of Environment
- Dept. of Marine Sciences
- Dept. of Food Sciences and Nutrition (Lemnos)

**School of Business (Chios)**
- Dept. of Business Administration
- Dept. of Shipping, Trade and Transport
- Dept. of Financial and Management Engineering*

**School of Humanities (Rhodes)**
- Dept. of Primary Education
- Dept. of Pre-School Education and Educational Design
- Dept. of Mediterranean Studies

* The Engineering Departments will constitute the "School of Engineering" of the University of the Aegean, the founding of which has been already decided by the Greek Council for Higher Education.
The University of the Aegean is managed by the **Senate**, the **Rector** and the **Vice Rectors**, who, for the academic year **2016-2017**, are:

**Rector**
- Professor **Stefanos Gritzalis**

**Vice Rectors**
- Professor **Amalia Polydoropoulou**,  
  *Department of Shipping, Trade and Transport*
- Associate Professor **Alexandra Bounia**,  
  *Department of Cultural Technology and Communication*
- Associate Professor **Spyridon Syropoulos**,  
  *Department of Mediterranean Studies*
The administrative facilities of the University of the Aegean are located at the following places:

**Lesvos (University Headquarters - Rector’s Office)**
University Hill, Administration Building, Mytilene, Lesvos, GR- 81100, Greece
Tel. +30-22510-36000
Fax: +30-22510-36009

**Samos**
Karlovasi, Samos, GR-83200, Greece

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<tr>
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For more information about the University of the Aegean please visit our web site: [http://www.aegean.gr](http://www.aegean.gr)
Facilities

The islands of the Aegean possess an architectural wealth of significant historical value. The exploitation of this wealth by the University of the Aegean contributes to the preservation of our national heritage. The aim of the University is that its activities are housed – where possible – in traditional buildings on the islands.

On the island of Samos, the University of the Aegean utilizes the following buildings:

**Karlovasi**
- Emporiki Sholi Building (Classrooms, Helpdesk)
- Igemoneio (Faculty Offices of Mathematics Department, Secretariat)
- Chatzigianneio (Library)
- Liberis Building (School of Science Secretariat, Faculty Offices of the Department of Information and Communication Systems Engineering, Secretariat, Classroom, Laboratories)
- Vourlioti Building (Faculty Offices of the Department of Statistics and Actuarial-Financial Mathematics, Secretariat)
- Morali Building (Faculty Offices of the Department of Mathematics)
- Provatari Building (Classrooms, Faculty Offices)
- Tsobana Building (Multimedia center)
- Kalatzis Warehouses (under construction)
- “Former Papanikolaou” Building (Offices of Postgraduate Students)
- Middle Karlovasi School Group (Classrooms)
- Student Residences of the University Unit of Samos
- “Former Katsika” Building (Technical Services)
- “Former Psatha” Building (offices)
- “Former Karagiannis” Building (warehouses)
- “Former Thrasyvoulou” Building (warehouses)
- “Former Pantazoni” Building (warehouses)
Scope and Objectives

“Throughout the world, information and communications technologies are generating a new industrial revolution already as significant and far-reaching as those of the past. It is a revolution based on information, itself the expression of human knowledge. Technological progress now enables us to process, store, retrieve and communicate information in whatever form it may take - oral, written or visual - unconstrained by distance, time and volume. This revolution adds huge new capacities to human intelligence and constitutes a resource which changes the way we work together and the way we live together”

Bangemann Committee Report 1994

The technological revolution, which, since 1994, has led European countries to adopt, as their central objective, the development of a European Information Society, has changed radically almost every aspect of economic and social life. Despite the impressive penetration of new technologies in all areas of life, new trends and visions pop up constantly, making the field of information and communication systems the most dynamic field of modern science and technology.

At this point in time, when there is an effort for the vision of a European Information Society to be translated into action for overcoming the technical, social and economic barriers and establishing national and European information infrastructures for the benefit of European citizens and their quality of life, the scientists in this field are asked to take an important, creative, and very demanding role, as far as it regards their knowledge and skills.
The **Department of Information and Communication Systems Engineering of the University of the Aegean** (www.icsd.aegean.gr) has, as main goal, the training of engineers with a high level of education, creative and critical spirit, able to analyze problems and take advantage of modern Information and Communication Technologies for the design, development and management of information and communication systems. The educational activity of the Department combined with the extensive activity in basic and applied research aims to produce new knowledge and disseminate it in a National and European level.

Since the time of its foundation in 1997, the Department had already embraced the vision that in a very short time the classical concepts of telecommunications engineers and computer scientists would no longer be a separate entity and a new integrated scientific subject, the one of Information and Communication Systems Engineering, would be required to meet those needs. The integration of information and communication technologies has given a special character to the Department, which is maintained and enhanced until today.

The Department of Information and Communication Systems Engineering of the University of the Aegean adopts the above concept as to the nature of information and communication systems. An information system is a system that is able to receive, store, retrieve and process information. It is an organized set of separate interacting components: people, processes, data, software and hardware. This approach covers not only the first component of the name of the department, but the second one as well, since according to it, the term "communication system" is not regarded as an independent and complementary subject, but as an intrinsic characteristic of an integrated information system. Thus, the two dimensions of the name of the Department reflect the completeness of the studies required to achieve the stated objectives.

The Curriculum of the Department has been designed taking into account international standards of education, which are adapted to the needs of the Greek reality. It covers all the objects that make up the core of knowledge related to information and communication systems, offering high quality courses. In this direction, student-centered teaching systems, assessment of the educational process, a high level of cooperation between teachers and students and actions connecting teaching with production are adopted.

In addition, the curriculum is constantly updated following the dynamics of the industry, so that the studies offered by the Department have always a modern, dynamic and competitive character.
Faculty

Head of Department  
Associate Professor Charalabos Skianis

Vice Head of Department  
Associate Professor Efstathios Stamatatos

Director of Postgraduate Studies  
Associate Professor Charalabos Skianis

Professor Spiros Cotsakis, Degree in Mathematics, National and Kapodistrian University of Athens, M.Sc. in Astronomy, Ph.D. in Mathematical Physics and Cosmology, University of Sussex (Differential Geometry, Mathematical Relativity, Generalized Theories, Mathematical Cosmology).


Professor Agis Iliadis, Degree in Physics, Aristotle University of Thessaloniki, M.Sc. in Electrical Engineering and Electronics, Ph.D. in Electrical Engineering and Electronics, University of Manchester Institute of Science and Technology (UMIST) (Semiconductors, Basic and Composite Materials for Semiconductors Construction).

Associate Professor Yannis Charalabidis, Diploma in Electrical and Computer Engineering, Ph.D. in Complex Software Systems, National Technical University of Athens (ICT enabled Collaborative Governance, Linked / Open Data, Social Participation Systems, Complex Societal Systems Modeling and Simulation, Enterprise Interoperability).


Associate Professor Spyros Kokolakis, Degree in Informatics, Ph.D. in Information Systems, Athens University of Economics and Business (Information Systems, Information Systems Security).

Associate Professor Georgios Kormentzas, Diploma in Electrical and Computer Engineering, Ph.D. in Traffic Control and Management of Broadband Networks using Abstract Information Models and Distributed Object Architectures, National Technical University of Athens (Computer Networks, Wireless Communications, Service Quality, Traffic Modeling and Analysis).

Associate Professor **Lilian Mitrou**, Degree in Law, National and Kapodistrian University of Athens, Ph.D. in Law, Goethe-Universitat, Frankfurt (Legal Aspects of Information Society, Information Law, Individual Rights in the Information Society, Personal Data Protection).

Associate Professor **Charalabos Skianis**, Degree in Physics, University of Patras, Ph.D. in Informatics, University of Bradford (Computer Networks, Modeling and Performance Evaluation of Wireless and Mobile Communication Networks).

Associate Professor **Efstathios Stamatatos**, Diploma in Electrical and Computer Technology Engineering, Ph.D. in Natural Language Processing, University of Patras (Natural Language Processing, Machine Learning and Computer Music).

Associate Professor **Demosthenes Vouyioukas**, Diploma in Electrical and Computer Engineering, M.Sc. in Business Administration (MBA), Ph.D. in Wireless and Mobile Communications, National Technical University of Athens (Mobile and Satellite Communications, Digital Communication Systems, Propagation and Antennas, Broadband Networks).

Assistant Professor (tenured) **Emmanouil Kalligeros**, Diploma in Computer Engineering and Informatics, M.Sc. in Computer Science and Technology, Ph.D. in Embedded Testing of Digital Circuits, University of Patras (VLSI Design and Test, Design for Testability, CAD Methodologies for VLSI Testing, Test-Data Compression and Built-In-Self-Test Architectures).

Assistant Professor (tenured) **Maria Karyda**, Degree in Informatics, M.Sc. in Information Systems, Ph.D. in Information Systems Security Management, Athens University of Economics and Business (Information Systems, Information Systems Security, Privacy, Social Networks).

Assistant Professor (tenured) **Ergina Kavallieratou**, Diploma in Electrical and Computer Technology Engineering, Ph.D. in Document Image Processing and Optical Character Recognition, University of Patras (Image Processing, Computer Vision, Pattern Recognition).

Assistant Professor (tenured) **Elisavet Konstantinou**, Degree in Informatics, University of Ioannina, M.Sc. in Signal and Image Processing Systems, Ph.D. in Public Key Cryptography, University of Patras (Cryptography).

Assistant Professor (tenured) **Asimakis Leros**, Diploma in Electrical Engineering, University of Patras, M.Sc. in Electrical & Computer Engineering, University of Massachusetts at Amherst, Ph.D. in Computer Engineering and Informatics, University of Patras (Estimation Theory, Parallel Algorithms, Digital Signal Processing, Systems Modeling and Simulation).
Assistant Professor (tenured) **Manolis Maragoudakis**, Degree in Computer Science, University of Crete, Ph.D. in Artificial Intelligence, University of Patras (Data Mining, Privacy Preserving Data Mining, Machine Learning, User Modeling, Semantic Web, Databases, Bayesian Networks, Knowledge Engineering).


Assistant Professor (tenured) **Theodoros Tzouramanis**, Diploma in Electrical and Computer Engineering, Ph.D. in Informatics, Aristotle University of Thessaloniki (Databases, Geographical Information Systems).

Assistant Professor **Dimitris Drossos**, Degree in Computer Science, University of Crete, MBA International (specialization e-commerce), Ph.D. in Mobile Advertising Effectiveness, Athens University of Economics and Business (e-Business, Marketing Analytics, Wireless Technologies and Applications).

Assistant Professor **Christos Goumopoulos**, Diploma in Computer Engineering and Informatics, Ph.D. in Distributed Software Systems, University of Patras (Parallel and Distributed Computing).

Assistant Professor **Alexis Kaporis**, Degree in Mathematics, Ph.D. in Threshold Phenomena in Combinatorial Problems, University of Patras (Algorithm Analysis, Probabilistic Techniques, Algorithmic Game Theory, Data Structures).

Assistant Professor **Georgios Kofinas**, Degree in Physics, National and Kapodistrian University of Athens, M.Sc. in Theoretical Physics, University of Alberta, Ph.D. in Physics, National and Kapodistrian University of Athens (Relativistic Classical and Quantum Cosmology, Gravity in Higher Dimensions, Generalized Theories).

Laboratory Teaching Staff

Dr. Dimitrios N. Skoutas, Diploma in Electrical and Computer Engineering, University of Patras, PhD in Communication Networks, University of the Aegean (Wireless and Mobile Networks, Communication networks and systems)

Technical Laboratory Personnel

Christina Theocharopoulou, Degree in Mathematics, University of the Aegean.

Georgios Chrysoloras, BEng in Information and Communication Systems Engineering, University of The Aegean. MSc in Advanced Information Systems, University of Piraeus.
Research Activities—Postgraduate Program

Basic and applied research is in the core of the transformation process of modern society into a society of knowledge. Basic research produces the knowledge, which will lead to the innovations of the future. Applied research is the answer to the constantly increasing demands for economic growth and progress, based on innovation for the benefit of the society and development of the country. The acceleration of social, economic and technological development created the need for rapid interaction between basic and applied research, particularly in the rapidly developing field of information technology and telecommunications.

Research requires robust planning, infrastructure supported by continuous investment, and, most of all, researchers with high expertise, broad and valuable knowledge base, inclination for participation in the research process and high-level collaborative view, practice and effectiveness. As a system of knowledge production, research is closely linked with education and technology.

In this context, investment in research is a primary objective and a key in the development of the Department of Information and Communication Systems Engineering. The Department invests in pioneering and important areas of basic and applied research, such as:

- Algorithms and Computational Complexity
- Information Retrieval
- Knowledge Representation
- Information and Communication Systems Security and Protection of Privacy
- Databases
- Information Law
- Intelligent Agents
- Intelligent Systems
- Applications of Differential Equations
- e-Commerce – e-Business – e-Governance
- Foundations of Computer Science
- Mathematical Physics
- Nanotechnology and Bioelectronics
Legal and Regulatory issues of Personal Data Protection
Multi-agent Systems
Investment and Strategy of Information Systems
Personal and Mobile Communications Systems
Pervasive Computing Systems
Decision Support Systems
Privacy Enhancing Technologies
Communication Systems and Networks
Computer Supported Collaboration
Digital Integrated Circuits and Systems

The faculty members of the Department of Information and Communication Systems Engineering have extensive experience in designing and carrying out competitive research and development projects. Such projects have been funded by the European Commission and the European Committee for Standardization, through programs such as: FP7, FP6-STREP, FP6-IST, TEN / TELECOM, ISIS, Leonardo, ACTS, INFOSEC ETS II, ESPRIT / ESSI, Telematics Applications, ACTION 2, INFOSEC, ESPRIT LTR, BRITE EURAM, INNOVATION, RACE, VALUE II, LRE, ESPRIT, EURATOM, AIM, etc.

The Department’s faculty has similar experience in designing and carrying out national competitive research and development projects. Funders of such projects are: the Ministries of Interior, Foreign Affairs, Justice, Transparency and Human Rights, Finance, Education and Religious Affairs, Culture and Sports, Health, Public Order and Citizen Protection, Labor, Social Insurance and Welfare, Marine and the Aegean, as well as the General Secretariat for Research and Technology, the General Secretariat for Greeks Abroad, the National Centre for Vocational Orientation, the National Organization for Medicines, the Social Insurance Institute, the Greek State Scholarship Foundation, the Information Society SA, and many private organizations and enterprises.

Also, by taking advantage of the European Union financing capabilities through the ERASMUS / SOCRATES programs, the Department has developed and maintains educational and research collaborations with several European universities, including, among others, the following: Royal Holloway and Bedford New College (University of London), University of Plymouth, University College Dublin, Aston University, Kingston University, Trinity College Dublin, University of Stockholm, University of Lund, Chalmers Institute of Technology, Karlstad University, University of Hamburg, University of Essen, University of Regensburg, Catholic University of Leuven, University of Vienna, Technical University of Graz, University of Oulu, University of Rome “La Sapienza”, University of Milano, Deusto University, University of Malaga, Polytechnic University of Catalunya, and Copenhagen Business School.
As far as the Postgraduate Program of the Department is concerned, its aim is to provide high quality education for University graduates in the cognitive area of Information and Communication Systems. It leads to the following Degrees:

- Master's Programme (MSc) in “Technologies and Management of Information and Communication Systems”
  - Stream I: Information and Communication Systems Security
  - Stream II: Electronic Government (e-Government)
  - Stream III: Intelligent Information Systems
  - Stream IV: Communication and Computer Networks
  - Stream V: Digital Innovation and Entrepreneurship
- Master's Programme (MSc) in “Research in Information and Communications Systems”
- Master's Programme (MSc) in “Teaching Information and Communication Technologies”
- Master's Programme (MSc) in “Information and Communication Systems”
- Doctor of Philosophy (Ph.D.) Degree

For more information please visit our web site: [http://msc.icsd.aegean.gr/](http://msc.icsd.aegean.gr/)
Program of Study Structure – Courses

According to the Curriculum of the Department of Information and Communication Systems Engineering, in the first three years of study the students follow a program of compulsory courses, while in the fourth year they can choose courses belonging in the six scientific Cycles ("Information and Communication Systems Security and Privacy", "Information Systems and Entrepreneurship", "Computer and Telecommunication Technologies", "Communication Systems and Networks", "Information Management and Intelligent Systems" and "Computer Science Foundations"). The Diploma Thesis is prepared in the fifth year of study. In the last (10th) semester there are no courses so that students can be devoted to the preparation of their Diploma Thesis. The courses of the Department are divided in the following categories: “Compulsory Courses” (C), “Cycle Courses” (CC), “Optional Courses” (O), “Free Courses” (F).

Compulsory Courses (C). There are thirty six (36) Compulsory Courses (C) which must be successfully attended by all students. The distribution of the compulsory courses per semester is as follows:

<table>
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<tr>
<th>Semester</th>
<th>1st</th>
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<tr>
<td>Compulsory Courses</td>
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</table>

Diploma Thesis – English Language. In addition to these compulsory courses, the Diploma Thesis and a successful examination in English language are also compulsory.

Cycle Courses (CC). In each of the 7th, 8th and 9th semesters and for each of the six Cycles, a number of courses is available. All students have to successfully complete a minimum of eighteen (18) courses from any Cycle, to satisfy the requirements for the award of the Diploma.
Optional Courses (O). These courses are not included in any particular Cycle, but they are taken into consideration for obtaining the Diploma and for the calculation of the Diploma’s grade (see the relevant paragraph of the Regulation of Studies).

Free Courses (F). These courses are not taken into consideration for obtaining the Diploma or for the calculation of the Diploma’s grade. The only exception to this rule (only for the calculation of the Diploma’s grade) is the foreign language (see the relevant paragraph of the Regulation of Studies).

Course Declaration

All students can declare a maximum of nine (9) courses in each semester, except for the students in 9th and 10th semester, who can declare as many courses as they want. At least six (6) of these courses must belong to the semester which the student attends or in previous semesters, while a maximum of three (3) courses can be of later semesters (exceptions can be made only in special cases, which are evaluated by the General Assembly of the Department, upon request of the student). This rule applies only to students of the first three years. Students of the fourth year of study (semesters 7th and 8th) are also asked to declare up to nine (9) courses, but in any way they wish. For the students of the Department there is also the possibility during their studies, to declare courses from the programs of other Departments of the University Unit of Samos, which are deemed as Optional Courses (O). It should be noted though that the maximum number of courses from programs of other Departments of the University Unit of Samos that can be taken into account as Optional Courses for the calculation of the Diploma’s grade is three (3). In addition, these courses may not have content that overlaps with that of courses of the Department of Information and Communication Systems Engineering.

The courses of English Language (321-0121, 321-0131 and 321-0141) cover three levels of language skills. They are compulsory, they are not counted in the number of courses declared per semester and, as far as it regards their contribution to the Diploma’s Grade, they are considered as a single course. The students, at the beginning of the first semester and after qualifying examinations, are distributed to the first (A) and second (B) level of English language, depending on their level of knowledge. Their enrollment at the next level is possible only after successful examination of the level they attend. All students are expected to successfully attend the B and C level. The overall objective of English language courses is to ensure that students, at the end of their second year of study, will have the ability to study scientific texts of Informatics and Telecommunications in English, attend lectures and seminars and create their own oral and written presentations. Apart from the above mentioned compulsory cours-
es of English language, the Curriculum of the Department also includes two free courses taught during the 7th and 8th semester respectively. Their purpose is to prepare the students who wish to pursue postgraduate studies in English-speaking universities, for participating in examinations that prove their ability to use the English language (TOEFL).

Similarly, the courses of the Foreign Language (321-0823, 321-0833, 321-0843 και 321-0853) cover four levels of skill and are not counted in the total number of courses declared per semester. All four levels are considered as a single free course. The students, after qualifying examinations, are distributed to the four levels, according to their knowledge of the foreign language. Their enrollment at the next level is possible only after successful examination of the level they attend. The overall objective of these courses is learning the foreign language to a sufficient level of communication, understanding and production of spoken and written speech. Furthermore, these courses, through the study of the appropriate material, enable students to read scientific texts, to attend lectures, seminars and present their own work in this specific language.
**Graduation Requirements – Diploma’s Grade**

The following requirements must be fulfilled in order for a student to obtain their Diploma:

1. Successful examination in every Compulsory Course (C).
2. Successful examination in at least four (4) courses, two (2) different Cycles (jointly, i.e., at least eight (8) courses, four of which at least would belong to each of the two different Cycles).
3. Successful examination in a total of fifty four (54) courses (excluding the English Language courses and the Diploma Thesis).
4. Successful examination in the compulsory English Language courses.
5. Successful defense of their Diploma Thesis.

*The Diploma’s Grade is calculated as follows:*

**Diploma’s Grade = 0.15 x Diploma Thesis grade + 0.85 x Courses Grade**

The Courses Grade is equal to the average of the grades in the courses required for a student to obtain their Diploma (54 courses plus a single grade for the compulsory English Language courses). If a student has successfully attended the Foreign Language course, then an additional single grade for this course can be taken into account for the calculation of the Courses Grade (i.e., the Courses Grade in this case is the average of 56 rather than 55 courses).

For the calculation of the Diploma’s Grade, only a single grade is taken into account for the compulsory English Language courses (that is, the average of the grades of the courses with codes 321-0131 and 321-0141).

For the calculation of the Diploma’s Grade, only a single grade is taken into account for the Foreign Language course. This grade is equal to the average of the grades obtained in the examinations of the various courses of Foreign language, which students have successfully attended (the number of these courses depends on the level at which they were initially placed, after the qualifying examinations). A student is considered to have successfully attended the Foreign Language course, only after having succeeded in the examinations of the Foreign Language 4 course (321-0853).
It should be mentioned again that Free Courses (F) are not taken into consideration for obtaining the Diploma or for the calculation of the Diploma’s grade. The only exceptions to that rule (only for the calculation of the Diploma’s grade) are the free courses of Foreign Language.

Grade Improvements and Changes to Program of Study

Students, who have been successfully examined in a course and do not meet the graduation requirements, may request a repetition of the examination in order to improve their grade in the specific course, by submitting an application to the Department’s Secretariat. The repetition of the examination takes place during the examination period of September and only for courses which have been declared by the student during the current academic year.

Especially for students who attend the fifth or higher year of their study, there is the possibility of repeating the examination of a maximum of five (5) courses, in which they have been successfully examined in previous years. In this case, the repetition of the examination takes place during the examination period of January for fall semester courses, during the examination period of June for spring semester courses and during the examination period of September for all courses. In all cases, the final grade is the greater of the two grades.

The Department’s Curriculum undergoes frequent changes, in order to accommodate advances in scientific knowledge and the constantly changing needs of the market.
Courses per Semester

1st Semester

Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Teaching Hours</th>
<th>Lab Hours / Review-Problem Session Hours</th>
<th>ECTS units</th>
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<tbody>
<tr>
<td>321-1204</td>
<td>Structured programming</td>
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<td>321-1406</td>
<td>Introduction to Computer Science and Communications</td>
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<td>321-2003</td>
<td>Logic Design</td>
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<td>321-1501</td>
<td>Discrete Mathematics I</td>
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<td>321-1105</td>
<td>Calculus</td>
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<td>321-2052</td>
<td>Physics</td>
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<td>321-0121</td>
<td>English Language 1</td>
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Free Course

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2nd Semester

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<td>Object-oriented Programming I</td>
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<td>321-2551</td>
<td>Circuit Theory</td>
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<td>Discrete Mathematics II</td>
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<td>321-3154</td>
<td>Linear Algebra</td>
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<td>321-2402</td>
<td>Probability and Statistics</td>
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<td>Course Code</td>
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<td>321-4103</td>
<td>Operating Systems</td>
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<td>321-0131</td>
<td>English Language 2</td>
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**Free Course**

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<td>English Language 3</td>
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**3rd Semester**

**Compulsory Courses**

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<td>321-3652</td>
<td>Object-oriented Programming II</td>
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<td>321-8105</td>
<td>IT Project Management</td>
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<td>321-3004</td>
<td>Data Structures</td>
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<td>321-3354</td>
<td>Computer Architecture</td>
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<td>321-3751</td>
<td>Stochastic Calculus</td>
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<td>321-5502</td>
<td>Signals and Systems</td>
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**Free Course**

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<td>321-0843</td>
<td>Foreign Language 3</td>
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### Courses per Semester

#### 4th Semester

**Compulsory Courses**

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<td>321-3104</td>
<td>Information Systems Analysis and Design</td>
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<td>321-4201</td>
<td>Algorithms and Complexity</td>
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<td>321-4120</td>
<td>Advanced Topics of Programming Languages</td>
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<td>321-3203</td>
<td>Databases I</td>
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<td>321-3302</td>
<td>Computer Communications</td>
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<td>321-2254</td>
<td>Differential Equations</td>
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**Free Course**

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#### 5th Semester

*Every course in this semester is Compulsory*

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<td>Business Operations and Information Systems</td>
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<td>321-6451</td>
<td>Computer Networks</td>
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<td>321-3703</td>
<td>Databases II</td>
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<td>321-3453</td>
<td>Telecommunications</td>
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<td>321-4002</td>
<td>Software Engineering</td>
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<td>321-6702</td>
<td>Theory of Computation</td>
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### 6th Semester

Every course in this semester is Compulsory

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<td>Information Systems Management</td>
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<td>321-3603</td>
<td>Artificial Intelligence</td>
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<td>321-3404</td>
<td>Information and Communication Systems Security</td>
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<td>321-7951</td>
<td>Distributed Systems</td>
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<td>321-88103</td>
<td>Internet Programming</td>
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<td>321-5205</td>
<td>Legal Framework for the Information Society</td>
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### 7th Semester

1. Cycle Information and Communication Systems Security and Privacy

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<td>Computer Network Security and Privacy Enhancing Technologies</td>
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<tr>
<td>321-5752</td>
<td>Privacy and Data Protection Law</td>
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2. Cycle Information Systems and Entrepreneurship

<table>
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<tbody>
<tr>
<td>321-8952</td>
<td>Electronic Entrepreneurship</td>
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<tr>
<td>321-5154</td>
<td>Information Systems Analysis and Design Methodologies and Tools</td>
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### Courses per Semester

#### 3. Cycle Computer and Telecommunication Technologies

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<tbody>
<tr>
<td>321-10302</td>
<td>Digital Communications</td>
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<tr>
<td>321-7051</td>
<td>Digital Systems Design</td>
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#### 4. Cycle Communication Systems and Networks

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<tr>
<td>321-8354</td>
<td>Network Management</td>
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<td>321-6256</td>
<td>Internet Protocols and Architectures</td>
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#### 5. Cycle Information Management and Intelligent Systems

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<td>321-7753</td>
<td>Robotic Control</td>
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<tr>
<td>321-3552</td>
<td>Computational Logic and Logical Programming</td>
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#### 6. Cycle Computer Science Foundations

<table>
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<td>Applied Topics in Data Structures and Databases</td>
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<td>321-99002</td>
<td>Numerical Analysis</td>
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### Free Course

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<td>English Language (TOEFL)</td>
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### 8th Semester

#### 1. Cycle Information and Communication Systems Security and Privacy

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<tr>
<td>321-8052</td>
<td>Cryptography</td>
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<tr>
<td>321-10752</td>
<td>Mobile and Wireless Networks Security</td>
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#### 2. Cycle Information Systems and Entrepreneurship

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<td>Decision Support Systems – Business Analytics</td>
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<td>321-11100</td>
<td>Electronic Government Technologies and Applications</td>
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<td>321-7652</td>
<td>Systems Theory</td>
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<td>321-5606</td>
<td>Human – Computer Interaction and Web Applications</td>
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#### 3. Cycle Computer and Telecommunication Technologies

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<tbody>
<tr>
<td>321-7803</td>
<td>Wireless Communications</td>
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<td>321-9352</td>
<td>Digital Image Processing</td>
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<td>321-8751</td>
<td>Introduction to VLSI</td>
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### Courses per Semester

#### 4. Cycle Communication Systems and Networks

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<td>Performance Evaluation and Simulation of Computer Systems</td>
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<td>321-11001</td>
<td>Networks and Cloud Technologies</td>
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<td>321-7255</td>
<td>Mobile Communication Networks</td>
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#### 5. Cycle Information Management and Intelligent Systems

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<td>Data Mining and Data Warehouses</td>
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<td>321-10201</td>
<td>Information Retrieval</td>
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#### 6. Cycle Computer Science Foundations

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<td>321-8000</td>
<td>Game Theory</td>
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<td>321-9855</td>
<td>Mathematical Modeling</td>
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### Optional Courses

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<td>Practice</td>
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<td>321-2630</td>
<td>Simulation of Communication Systems using Matlab</td>
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<tr>
<td>321-2650</td>
<td>Advanced Topics in Enterprise Resource Planning (ERP) Systems</td>
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Free Course

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<tr>
<td>321-0151</td>
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9th Semester

1. Cycle Information and Communication Systems Security and Privacy

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<tr>
<td>321-99100</td>
<td>Regulatory and Social Issues in Information Society</td>
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2. Cycle Information Systems and Entrepreneurship

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<th>Lab Hours / Review-Problem Session Hours</th>
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<tr>
<td>321-5402</td>
<td>Information Systems Strategy and Investment</td>
<td>3</td>
<td>-</td>
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</tr>
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</table>

3. Cycle Computer and Telecommunication Technologies

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Teaching Hours</th>
<th>Lab Hours / Review-Problem Session Hours</th>
<th>ECTS units</th>
</tr>
</thead>
<tbody>
<tr>
<td>321-10651</td>
<td>Satellite Communications</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>321-6554</td>
<td>Multimedia</td>
<td>3</td>
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4. Cycle Communication Systems and Networks

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>321-9403</td>
<td>Broadband Networks</td>
<td>3</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>321-9120</td>
<td>Design and Development of Mobile Computing Applications</td>
<td>3</td>
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</table>
### Courses per Semester

#### 5. Cycle Information Management and Intelligent Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Teaching Hours</th>
<th>Lab Hours / Review-Problem Session Hours</th>
<th>ECTS units</th>
</tr>
</thead>
<tbody>
<tr>
<td>321-7405</td>
<td>Knowledge Engineering and Knowledge Systems</td>
<td>3</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>321-6606</td>
<td>Computer Vision</td>
<td>3</td>
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#### 6. Cycle Computer Science Foundations

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<tbody>
<tr>
<td>321-9003</td>
<td>Advanced Data Structures</td>
<td>3</td>
<td>-</td>
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<tr>
<td>321-10001</td>
<td>Algorithms and Combinatorial Optimization</td>
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#### Optional Courses

<table>
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<td>321-2600</td>
<td>Risk Theory</td>
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#### 10th Semester

##### Compulsory Course

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>321-7102</td>
<td>Diploma Thesis</td>
<td>-</td>
<td>-</td>
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</table>
Syllabus and Learning Outcomes of Courses per Semester
(for each course, syllabus is shown first and learning outcomes follow)

■ 1st Semester

321-1204  Structured programming
Introduction to programming and programming languages. The basic parts of C programming language. Variables and constants, Declarations, Operators, Expressions, Data input and output, conditional expressions, Functions, Tables, Pointers, Formatted input and output, Structures and Unions, Files and Dynamical structures.
Understanding the advantages and disadvantages of structured programming. Learning the basic features of the C programming language. The emphasis is on design and analysis of various computer algorithms and on software development.

321-1406  Introduction to Computer Science and Communications
Understanding the fundamentals of computer science and telecommunications. Web development skills.
321-2003  Logic Design


Knowledge of basic concepts of digital systems. Ability of analyzing and designing combinational and synchronous sequential circuits in logic level.

321-1501  Discrete Mathematics I

The sets theory, finite and infinite sets, multisets, the principle of inclusion and exclusion. Proof techniques, mathematical induction. Logic and propositions, propositional calculus, predicate calculus, inference rules. Computability and formal language theory, the paradox of Russell and non-computability, languages, phrase structure grammars, hierarchy types on the generative grammars and languages. Enumeration: samples, permutations, combinations, the binomial theorem, etc. The discrete probability. Relations and functions: a relational model for databases, binary relations, equivalence relations and partitioning, functions, etc. The pigeonhole principle.

The widening of the field of mathematics for the student through the examination of a series of concepts and issues, which represent the foundation of Computer Science and are not included in the General Applied Mathematical courses. Aiming at developing and deepening students’ perception of related disciplines, such as the Foundations of Computer Science, the Sets Theory, the Formal Language Theory, the Probability Theory, the Theory of Algorithms, etc.
321-1105 Calculus


The purpose of the course is to give a complete and working knowledge of differential and integral calculus. It covers and expands material presented in the last years of high school, including functions, basic calculus, limits, derivatives and integrals. One objective of the course is to provide a solid background to the analysis of functions of a single variable and to expose the mathematical rigor through the proofs of most of the theorems and propositions. For example, one of the goals is to introduce the student to the definitions of the concept of the limit of a function or that of the continuity, so that concrete examples of functions can be treated using these definitions. At the same time, the course also focuses on direct applications of the covered material to a number of problems from everyday life, from geometry (areas, volumes) or from physics. The student should realize that beyond the terse formalities used in the proofs, there is a very vivid and practical aspect in calculus. Similarly, the definition of the definite integral as summation should be understood, but at the same time a variety of integration techniques should be taught for practically computing complicated integrals. More advanced topics such as improper integrals or solving simple differential equations or a presentation of Taylor theorem should also be understood.

321-2052 Physics

Scalar, vector quantities. Kinematics. Relative motion. Forces, torques, centre mass. Dynamics, friction in a liquid, bodies with changing mass, angular momentum. Work, energy, potential, conservative forces, central forces. Electrostatics: Coulomb’s law, electric field, potential, flux, Gauss’s law, Poisson equation, potential energy, boundary conditions, method of images, electric dipole, multipole expansion, conductors, capacity, dielectrics, polarization, electrical displacement. Electric current, continuity equation, steady current, Ohm’s law. Magnetostatics: Laplace’s force, Lorentz, force on a current-carrying wire, magnetic dipole, Biot–Savart’s law, Ampere’s law, vector potential, field of a magnetic dipole, magnetic mate-
The course covers and expands topics in mechanics and electromagnetism which are familiar to some degree from high school but using higher mathematics. Differential calculus, elements of vector analysis and simple differential equations are being introduced in the description of the basic laws of mechanics and are used for solving problems. Using integrals the student should be able to compute the kinematical quantities of an arbitrary motion in a straight line, in a general curvilinear motion, or to find the orbit of a point particle from Newton’s law, e.g. inside a Keplerian gravitational field. Given a force field one should be able to determine if this is conservative or not and to find the potential energy when this exists. Another objective is the use of integration techniques to compute the centre-mass. Concerning electromagnetism, one of the basic goals is to introduce the students to the use of differential calculus and vector analysis to the study of the laws of electrostatics, magnetostatics and electromagnetism. Using integrals the student should be able to compute the electric field and potential of various distributions of charge which have some symmetry in their geometry or respectively the magnetic field of moving charges and currents. Various theorems and equations (e.g. Gauss, Biot-Savart, Ampere, Faraday, Maxwell’s equations) should be understood in their general form and not just in their simplified versions exposed in high school textbooks. Beyond that, one of the objectives of the course is the physical and mathematical study of more sophisticated topics of electricity and magnetism, such as the method of images, the electric dipole, the dielectrics, the magnetic materials, the scalar and vector potentials of electromagnetism, the energy/momentum conservation theorems and elements of electromagnetic waves.

321-0121 English Language 1

The course includes comprehension activities on written and spoken texts, along with vocabulary exercises, grammar theory and practice, and speaking/writing exercises (e.g. letter, email, paragraph, summary). In addition, students are introduced to computing terminology.

Students who successfully complete the course will be familiar with basic concepts of English grammar and syntax, will have practised in understanding generic texts and will have developed their writing and speaking skills in English.
321-0823  Foreign Language 1

Basic knowledge of the foreign language (grammar, syntax), descriptions of persons and objects, exchange of simple information, suggestions and views that enable communication in familiar, everyday situations.

Ability to use the foreign language in the cases mentioned in the syllabus of the course.

2nd Semester

321-2104  Object-oriented Programming I

Object-oriented programming, Classes, Object Oriented Analysis and Design, Objects, Recursion, Constructor, Destructor, Member Functions, const Functions, Inline functions, Complex Classes, Input / Output in C++, Output to file, Input from file, Control loops, Pointers, Memory Allocation, References, Derived class, Inheritance, Overriding, Overloading vs. Overriding, Virtual functions, Abstract classes, Polymorphism, Virtual Inheritance.

The course aims to introduce object-oriented programming to the students using C++. It targets three areas; the student should be able to: 1) identify the potential classes and their structure from a brief description, 2) understand existing code, and 3) develop a system in C++.

321-2551  Circuit Theory


Knowledge of main methodologies for circuits’ analysis. Knowledge of basic MOSFET characteristics. Familiarity with key features of digital circuits like the structure and function of digital gates, noise margins, propagation delay and power dissipation.
### 321-2450 Discrete Mathematics II

Graph theory: basic terminology; paths and circuits; minimum paths; Euler and Hamilton paths and circles; the travelling salesman problem. Trees: basic notation; rooted trees; binary search trees; minimum span trees. Finite state machines. Real sequences and generating functions. Combinatorial problems. Recursive relations and recursive algorithms. Linear recurrence equations with constant coefficients: homogeneous solution; partial solution; total solution; solution using generating functions. Sorting algorithms.

Usage of elemental mathematical tools in problem solving, with emphasis on computer science problems.

### 321-3154 Linear Algebra


The purpose of the course is to introduce the first year students to the concepts of linear algebra which usually have not been met before. After an introduction to the complex numbers, one main objective of the course is to provide a complete and working knowledge of the theory of linear spaces. The notions of linear independence, linear superposition, basis and dimension should be well understood. Another goal is the study of the theory of matrices, of row equivalence and of the solution of a linear system of equations. Techniques for computing trivial and non-trivial determinants should be discussed. Students must also understand more advanced topics of linear algebra, such as eigenvalues-eigenvectors, linear mappings and diagonalization.
321-2402 Probability and Statistics

Axiomatic definition of probability, independent events, conditional probabilities, Bayes theorem, combinatorial analysis, discrete and continuous random variables, distribution functions, distributions of special interest: Bernoulli, binomial, Poisson, uniform, exponential, normal, Gamma, Weibull. Joint distribution functions, independent random variables, conditional distributions, moment generating functions, limit theorems, central limit theorem, strong law of large numbers. Descriptive statistics.

Comprehension of basic notions of combinatorial analysis and probability theory. Familiarity with the basic categories of random variables.

321-4103 Operating Systems


Understanding the modern computer systems’ complexity and the usefulness of operating systems. Knowledge of the most important resource-utilization issues arising in a computer system. Learning of the most popular solutions adopted by modern operating systems.
321-0131 | English Language 2
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See course 321-0121.

321-0833 | Foreign Language 2
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Acquisition of communication skills through simple dialogues on familiar and contemporary issues, understanding of written and oral language, writing paragraphs, letters, CVs, announcements.
Anything mentioned in the syllabus of the course.

■ 3rd Semester

321-3652 | Object-oriented Programming II
---

This course covers the fundamentals of Object Oriented Programming (OOP) using Java. The main learning objectives for this course are: To build and develop OOP thinking: Learn to think in objects; to familiarize students with the basic features of the language API and knowing how to use them correctly and efficiently; to cover the usage principles of encapsulation, coupling, cohesion, inheritance, polymorphism and method overloading/overriding; to create Java applications using sound OOP practices and program structuring; to develop
analytical programming thinking and reasoning skills. The aforementioned objectives are achieved through course lectures and extensive laboratory exercises.

**321-8105 IT Project Management**


Students will learn the basic principles of IT project management and will be able to apply fundamental methods for managing the cost and duration of IT projects.

**321-3004 Data Structures**

Introduction – Basic concepts of algorithms and data structures, Abstract Data Types (ADT), Performance Algorithm, Analysis of algorithms, Asymptotic notations, Arrays (multidimensional, special forms, sparse), Lists (simply connected, circular, doubly linked), Stacks (with implementation table with a list implementation, applications), tails (realization with a round table with a list implementation, applications), Trees (quantitative data, representation of arrays and pointers, cross), priority Queue, heap Structure, Search (linear, binary, with interpolation), Sort (with option to import, bubble, quicksort, heap with merger), binary search trees, weighted search tree, red-black trees, B-trees, hash (dictionary function and hash table, collisions, fragmentation chains, linear and double fragmentation), Graphs (a reconstruction table / list of neighborhood, breadth-first search, depth-first search).

The design or selection of appropriate data structures for specific programming problems. The implementation and evaluation of different structures. Basic algorithmic techniques.
321-3354 Computer Architecture


Comprehension of the basic architectural elements of a computer system.

321-3751 Stochastic Calculus

Discrete and continuous random variables, expectation of functions of random variables, joint distribution functions, independent random variables, moment generating functions, limit theorems, conditional probability and conditional expectation, the exponential distribution, definition of stochastic processes, the Poisson process, simulating discrete and continuous random variables, simulating stochastic processes, Markov chains, Chapman-Kolmogorov equations, classification of states, limiting probabilities, mean time spent in transient states.

Comprehension of the notion of stochastic processes and familiarity with the basic families of them (i.e., Poisson processes and Markov chains).
321-5502  Signals and Systems


Knowledge of basic techniques of signals and systems analysis and study. Knowledge of transformations (for continuous and discrete signals and systems) and their properties. Understanding fundamental relations and meanings, such as the relation that associates the output with the input of a system and the notions of stability and causality. Use of the above for solving problems.

321-0141  English Language 3

See course 321-0121.

321-0843  Foreign Language 3

Understanding and participation in discussions of issues of everyday life, oral and written presentation of information and texts in a variety of topics. Expression of feelings, opinions, arguments, conclusions, cultural elements (everyday life, education, work in France).

Anything mentioned in the syllabus of the course.
### 4th Semester

#### 321-3104 Information Systems Analysis and Design


Basic knowledge of system analysis techniques. Systems analyst skills.

#### 321-4201 Algorithms and Complexity


Knowledge of the most important algorithms of the theory of computation.

#### 321-3203 Databases I

The foundation of Database Science and, more precisely, developing students’ knowledge of the principle of conceptual and logical modeling and designing of Databases, the Database programming languages, as well as of the options for implementation that are nowadays made available by Database Management Systems.

321-3302  **Computer Communications**


Introduction to the physical layer, data link layer and Medium Access Control sublayer of modern communication systems. Engineering skills on communication systems and technologies.

321-4120  **Advanced Topics of Programming Languages**


Understand the essential aspects of programming languages. Understand basic issues of compilers from both theoretical and practical terms.
321-2254  Differential Equations


The student should be able to construct a differential equation that describes a simple physical system and solve it either analytically or numerically.

321-0853  Foreign Language 4

This course aims at a high level of knowledge of the Foreign language by assigning creative, academic projects. It enables recognition of advanced level of the Foreign language usage from official organizations and companies. It helps students who wish to pursue postgraduate studies at higher educational institutions and many Foreign language speaking countries. It enables the acquisition of Foreign language proficiency certificate.

Ability to participate in exams for acquisition of the Foreign language proficiency certificate.

5th Semester

321-2304  Business Operations and Information Systems

Introduction. Basic functions of a firm. Structure of the information system of a firm. Enterprise Resource Planning (ERP) systems. Commercial functions: sales, procurement, inventory management - basic concepts, implementation processes and functionality (capabilities) of the corresponding ERP modules. Financial statements - General Accounting: accounts, entries (credits/debits) for basic events and transactions, functionality of General Accounting module. Analytical Accounting - Costing: cost categories, cost centers, cost allocations, functionality of relevant modules. Production function: production planning and monitoring, Master Production Schedule - MPS, Materials Requirements Planning - MRP, functionality of production ERP modules. The laboratory of this course includes basic familiarization with the above modules of Microsoft Navision ERP system.
Gaining an understanding of the basic functions of a firm (commercial, financial and production), and also of the capabilities to support them through modern Enterprise Resource Planning (ERP) Systems.

**321-6451 Computer Networks**


Familiarity with the basic elements of networks and data transport. Development of network engineering skills.

**321-3703 Databases II**


Students will gain understanding and practical experience of the development life cycle of a Database System. The intention is to train students to conduct data analysis, database modeling and database application development, using a suitable database management system. The course will concentrate on methodologies for good database design and will give the student practical experience in designing and implementing standalone database systems. The student will gain skills so that they can understand and discuss with computing professionals, participate in project development teams, and effectively develop a database system for small to medium size business. At the end of this course, the student will be able to: a) clearly explain his/her knowledge of database technology, its importance, its architectures, and the central role Database technology plays in Information Systems, b) understand and apply appropriate development methodologies of data analysis, and to design and use appropriate modeling techniques for databases, and c) administrate transaction, recovery, optimization and concurrency issues in modern DBMS.
321-3453  **Telecommunications**


This course covers a large part of the telecommunication systems aiming at understanding the basic principles of analog and digital communication systems, which rely on wireless transmission of information. In particular, an introduction to the basic principles of analysis and design of telecommunication systems is considered, along with the transmission technologies of the physical layer. The theoretical and laboratory section of the course is a detailed presentation of all the necessary technical data, definitions and standards that are essential for understanding Analog Communication Systems, a presentation of basic analog and digital modulation, coding techniques and effects of noise to the signals. Upon completion of this course, the student will be able to understand the propagation of information and its techniques, as well as techniques necessary to implement basic data transmission telecommunication systems.

321-4002  **Software Engineering**


The students get an overall view of software engineering methods and tools. Through their demo-prototype development in teams, they get initial experience in running and managing small software development projects.
diαχείριση σχηµατισµών, περιβάλλοντα ανάπτυξης, πρότυπα. Ειδικά, σύγχρονα µοντέλα ευέλικτου προγραµµατισµού και ανάπτυξη πρωτότυπων.

Γνώση και εργαστηριακή εµπειρία σε µοντέλα ανάπτυξης λογισµικού, ανάλυση απαιτήσεων και σχεδιασµό πληροφοριακών συστηµάτων. Μέσα από την ανάπτυξη πρωτότυπης εφαρµογής, οι φοιτητές αποκτούν εµπειρία στη διοίκηση µικρών οµάδων ανάπτυξης και ελέγχου λογισµικού.

**321-6702 Theory of Computation**


To understand the limits of computation through the study of simple and complex computing machines.

**6th Semester**

**321-6503 Information Systems Management**


Students will learn about the basic applications and the role of information systems into organizations. They will also learn about the necessary technological infrastructure.
321-3603  **Artificial Intelligence**


Ability to define an intelligent agent and familiarity with the types of intelligent agents. Ability to represent a problem so that it can be solved via state space search. Familiarity with blind search algorithms. Familiarity with heuristic search algorithms. Understanding of the properties of heuristic functions. Familiarity with local search algorithms. Ability to represent a problem as a constraint satisfaction problem. Familiarity with algorithms of solving constraint satisfaction problems. Understanding of planning methods and the algorithm of partial-order planning. Familiarity with the basic principles and algorithms of machine learning. Ability to develop programs that use artificial intelligence algorithms.

321-3404  **Information and Communication Systems Security**


The course offers an introduction to Information and Communication Systems security. The undergraduate student will be able to attend more advanced security and cryptography related courses.
321-7951 Distributed Systems


The development of ways to think and manipulate problems in a distributed fashion, in contrast to acting in a centralized manner.

321-88103 Internet Programming


Students get the basic knowledge and laboratory experience in web programming technologies, tools and methods. They also become acquainted with programming techniques for developing content and information management applications and services.
321-5205  Legal Framework for the Information Society


The objective of this course is to offer to the students the opportunity and the possibility to gain an overview of the legal and institutional issues which pertain to the Information and Communication Technologies (ICTs). The knowledge and understanding of the regulatory context of ICTs and of the main legal rules and principles allow the students to integrate their technical knowledge in a wider social, economical and institutional context. The knowledge and the understanding of these issues, the requirements of the socio-economic environment and the regulatory system are of major importance as they enhance the inter-disciplinary knowledge and approach.

■ 7th Semester

Cycle Information and Communication Systems Security and Privacy

321-9702  Computer Network Security and Privacy Enhancing Technologies

This course provides a broad-spectrum introduction to the fundamental principles of network security and privacy. The main learning objectives of this course are as follows: To obtain an understanding of network security and its changing nature; to understand how network security is perceived and carried out; to analyze the various categories of threats, vulnerabilities, countermeasures and repelling strategies; to conceptualize the challenges of network security. The structure of the module follows the OSI/ISO architecture of network security and more specifically that of the Internet model. Also, the students will become familiar with the basic terminology and technologies of data privacy in networking environment and examine typical applications and use-cases. The aim of the laboratory projects is to provide students with the knowledge and skills necessary to design and support network security and privacy. The aforementioned objectives are met through course lectures, paper readings, and laboratory exercises.

**321-5752 Privacy and Data Protection Law**


The knowledge and understanding of the principles and basic legal rules referring to privacy and personal data protection are of major importance for studying, planning, designing and operating an information system. The planning and designing of information systems presuppose the knowledge of the regulatory framework and the respective legal barriers of data protection. The knowledge and the understanding of the issues concerning data protection and privacy are especially important as they are strictly co-related with the field of information systems and data security.
Cycle Information Systems and Entrepreneurship

321-5154  Information Systems Analysis and Design Methodologies and Tools


Basic knowledge of current information systems development methodologies. System analyst skills. Analytical and systems way of thinking.

321-8952  Electronic Entrepreneurship


Understanding all the principles, types and potential of electronic business. The student, at the end of the course, will be able to design and elaborate a successful and fully implementable business plan for a digital business.
Cycle Computer and Telecommunication Technologies

321-10302 Digital Communications


To provide an understanding of the components of digital communication systems and to analyze error performance.

321-7051 Digital Systems Design

Application Specific Integrated Circuits (ASICs) and programmable devices (PLAs, PLDs, FPGAs), Hardware Description Languages (HDLs): Verilog and VHDL. Introduction to Verilog HDL, designing digital circuits with Verilog. Verilog syntax, modules and ports, structural modeling, behavioral modeling, dataflow modeling, tasks and functions. Finite State Machines (Mealy and Moore), Verilog for synthesis, design of sequential modules. Timing and delays in Verilog, Computer Aided Design (CAD) tools, logical simulation and timing verification. Random Access Memories (RAMs) and memory interfaces. Design prototyping.

Students who successfully fulfill the course requirements will know: the differences between programmable devices and ASICs, the main features of FPGAs structure, how to use Verilog HDL for designing combinational and sequential digital circuits, how to write testbenches in Verilog, how to write Verilog for synthesis, how to simulate their designs, the structure of RAMs and how to use them in digital systems, how to use prototyping boards for transferring their designs in hardware.
Cycle Communication Systems and Networks

321 8354  Network Management
Familiarity with Network Management aspects. Development of advanced engineering skills and experience on network management systems and associated tools and techniques.

321-6256  Internet Protocols and Architectures
Upon successful completion of this course, students should be able to: design, implement and evaluate effective and usable graphical computer interfaces, describe and apply core theories, models and methodologies from the field of Human – Computer Interaction (HCI), describe and discuss current research in the field of HCI, implement simple graphical user interfaces using the Java Swing toolkit, describe special considerations in designing user interfaces for older adults.
**Cycle Information Management and Intelligent Systems**

**321-7753 Robotic Control**


Understanding robotic control issues. Design and development of robotic systems.

**321-3552 Computational Logic and Logical Programming**


Understanding of syntax and semantics of propositional logic. Ability to apply semantic methods to prove a clause given a set of premises. Familiarity with formal proof methods. Understanding and application of the resolution method in propositional logic. Understanding of syntax and semantics of predicate logic. Familiarity with the application of the Herbrand method. Ability to apply the algorithm of transforming an expression of predicate logic to conjunctive normal form. Understanding and application of the unification method and the algorithm of finding the most general unifier of two clauses in predicate logic. Understanding of the resolution method in predicate logic. Understanding of the basic strategies to apply the resolution method. Familiarity with the main principles of logic programming. Ability to write programs in PROLOG to solve practical problems.
Cycle Computer Science Foundations

321-9454 Applied Topics in Data Structures and Databases

File Organization; analysis of files structures and fundamental methods for data indexing; query processing. Data hashing issues. Semistructured data analysis; data graphs analysis; other relative specialized applications. Introduction to Computational Geometry and Geospatial Data Science. Functional dependencies and normalization theory; Axioms of Armstrong and relational schema design optimization. Specialised topics on data protection and data compression. New research directions in Data Science.

Understanding fundamental concepts of Data Science applied topics.

321-99002 Numerical Analysis


Comprehension of the basic numerical methods to solve problems in Science and Technology.

321-0161 English Language (TOEFL)

In this course students will be able to: (1) Learn more about what the TOEFL test is and how they can register for it. (2) Get familiar with the test’s format and tasks. (3) Practise reading, listening, writing and speaking skills in English that are required for the test. (4) Practise with questions and tasks that simulate the real exam.

The purpose of this course is to prepare students to participate in the TOEFL examinations, which certify their ability to use the English language.
8th Semester

Cycle Information and Communication Systems Security and Privacy

321-8052 Cryptography

Introduction to cryptography and cryptanalysis, historical cryptographic algorithms, basic notions of number theory, modular arithmetic, one-way functions, the definition of perfect secrecy, Shannon’s theorem, Vernam’s cryptosystem, public key cryptography (RSA, Rabin), symmetric algorithms, DES and AES, hash functions, digital signatures.

Comprehension of basic notions of number theory and understanding of the operation of well-known cryptographic algorithms.

321-10752 Mobile and Wireless Networks Security


This course covers the major security and privacy topics in wireless and mobile networking. The main learning objectives of this course are: To conceptualize the wireless terrain idiosyncrasies in terms of security and privacy; to impart state-of-the-art technologies of wireless network security; to analyze the various categories of threats, vulnerabilities, countermeasures in the area of wireless and mobile networking; to familiarize students with the issues and technologies involved in designing a wireless system that is robust against attack. The course considers basic security topics and technologies in the following standards: UMTS (3GPP), IEEE 802.11, IEEE 802.16. Security problems of MAC and especially its upper layers will be emphasized. The aforementioned objectives are fulfilled through course lectures, paper readings, and extensive laboratory exercises.
Cycle Information Systems and Entrepreneurship

321-8503 Decision Support Systems – Business Analytics


The basic learning objectives of this course are:

1. Understanding the basic methods of supporting decisions of firms and public organizations using information systems, and the basic types of business analytics (descriptive, predictive and prescriptive).
2. Familiarization with software tools supporting the above-mentioned in 1.
3. Acquisition of competences for selecting the most appropriate methods of decisions' support using information systems, and types of business analytics, for a particular firm or public organization, and formulation of a plan for their gradual development.
4. Acquisition of competences for modelling important decision problems of a firm or public organization, and then for solving these models, performing sensitivity analysis of their results, and final formulation of conclusions and proposals.
321-5606  Human – Computer Interaction and Web Applications


Upon successful completion of this course, students should be able to: design, implement and evaluate effective and usable graphical computer interfaces, describe and apply core theories, models and methodologies from the field of Human – Computer Interaction (HCI), describe and discuss current research in the field of HCI. Students will also be asked to design and implement a fully operable web application.

321-7652  Systems Theory


Students will learn about epistemological issues and will be able to apply basic methods of systems thinking into problem understanding and problem solving.

321-11100  Electronic Government Technologies and Applications


The students will acquire knowledge on the principles, the processes and the tools of electronic government, with the support of information and communication technologies.
Cycle Computer and Telecommunication Technologies

321-7803 Wireless Communications


To provide an understanding of the components of digital communication systems and to analyze error performance.

321-8751 Introduction to VLSI


Knowledge of the accurate (non-ideal) MOS transistor behavior. Understanding of the parameters that affect the speed and power consumption of modern CMOS VLSI digital circuits. Knowledge of main methodologies for designing CMOS VLSI circuits. Layout design ability of CMOS VLSI circuits. Knowledge of the advantages and disadvantages of main CMOS circuit families. Knowledge of the sequencing methodologies of static CMOS circuits. Knowledge of the structure and function of semiconductor memories.
321-9352  Digital Image Processing


Cycle Communication Systems and Networks

321-7001  Performance Evaluation and Simulation of Computer Systems and Networks

Quantitative analysis of system performance, with emphasis on computer systems and networks, by both mathematical models and methods, and simulation tools. Poisson arrivals. Markov processes and their application in performance evaluation. Queueing analysis: M/M/1, M/M/c, M/M/1 loss, machine repairman, and more general models. Queueing networks, Jackson networks, BCMP. Discrete event simulation; generation of random variates; generation of arrival processes; simulation of Markov chains. Simulation software. Applications and case studies.

Basic understanding of mathematical and statistical models of computers and networks. Understanding of major building blocks of simulation software. Capability of statistical analysis and interpretation of simulation results.
**Mobile Communication Networks**

Introduction to wireless systems and networks. Evolution of wireless mobile communication systems. Propagation and path-loss in wireless communication. Analytical and empirical propagation path-loss models. Types of fading and channel characterization. Radio planning principles for cellular systems. Types of interference. Mobility management and handover process. Techniques for efficient allocation and management of radio resources. Digital modulation techniques for mobile communication systems and channel capacity. Medium access control protocols and multiple access techniques FDMA, TDMA, CDMA and OFDMA as well as how they are implemented in the respective wireless cellular systems GSM, GPRS/EDGE, UMTS, LTE, LTE-A.

The course offers introduction to mobile communication networks. In this context the basic operating principles of these systems are examined. Specifically, the operating principles, the architecture and features of popular mobile systems i.e. GSM, GPRS, UMTS, LTE and LTE-A are analyzed. Upon completion of this course, the students will be familiar with the concepts of cellular radio coverage, cellular planning and radio resource management in advanced mobile systems.

**Networks and Cloud Technologies**

Advanced technologies for access and core networks (e.g., IEEE 802.1X, 802.21, 5G, DSL, Gigabit Ethernet), architectures (e.g. MPLS, DiffServ, IntServ), protocols (e.g. RSVP, Mobile IP, IPv6, OSPF, BGP) and services (WebTV, IPTV, P2P, V2V). Cloud computing technologies, types of services (NaaS, IaaS), development models (private, public, hybrid), tools (openflow), virtualization of networking services and functions (SDN, NFV).

Learning advanced topics of alternative access technologies, infrastructure and cloud services and virtualization. Developing of advanced knowledge in engineering networks and communications.
Cycle Information Management and Intelligent Systems

321-9252 Data Mining and Data Warehouses

Introduction to Data Mining Techniques: a) data, b) problems, c) applications, d) general analysis and processing techniques. Data pre-processing: a) data cleansing, b) data transformations, c) dimension reduction techniques. Clustering, Part I: a) introduction to clustering, b) proximity measures, c) k-means and its variations, d) hierarchical clustering. Clustering, Part II: a) DBSCAN, b) cluster validity, c) BIRCH. Association Rules I: a) problem definition, b) a-priori algorithm, c) frequent itemsets. Association Rules II: a) advanced methods for finding frequent itemsets, b) FP-Growth, c) association rules validation. Classification I: a) introduction, b) Decision Trees (entropy, Gini Index, classification error). Classification II: a) Bayesian classifiers, b) Support Vector Machines, c) KNN, d) rule-based classifiers, e) overfitting. Data Warehouses and OLAP: a) definitions, ROLAP, MOLAP, HOLAP, b) cuboid, c) cuboid implementation.

Critical awareness of current problems and research issues in Data Mining. Comprehensive understanding of current advanced scholarship and research in data mining and how this may contribute to the effective design and implementation of data mining applications. Ability to consistently apply knowledge concerning current data mining research issues in an original manner and produce work which is at the forefront of current developments in the sub-discipline of data mining. Proficiency with leading data mining software, including RapidMiner, Weka and Business Intelligence of MS SQL server. Understanding of how to apply a wide range of clustering, estimation, prediction and classification algorithms, including k-means clustering, BIRCH clustering, DBSCAN clustering, classification and regression trees, the C4.5 algorithm, logistic Regression, k-nearest neighbor, multiple regression, neural networks and support vector machines. Understanding of how to apply the most current data mining techniques and applications, such as text mining, mining genomics data, and other current issues. Understanding of the mathematical/statistics foundations of the algorithms outlined above.

321-10201 Ανάκτηση Πληροφορίας

Understanding of the distinction between data retrieval and information retrieval. Familiarity with the architecture of an information retrieval system. Understanding of the properties of the Boolean, Vector-space, and Probabilistic models for information retrieval. Familiarity with the basic principles of text processing and basic properties of text corpora. Understanding of the most popular indexing methods used in information retrieval systems. Ability to evaluate information retrieval systems. Familiarity with user feedback and query expansion methods. Understanding of the properties of web information retrieval. Familiarity with web crawling techniques.

**Cycle Computer Science Foundations**

**321-8601 Information Theory**


This course offers an introduction to the theory of information and its applications to communication systems. Emphasis is given on the design, analysis and application of error detection and correction codes.

**321-8000 Game Theory**


Trying to model the interaction of rational entities, with respect to antagonistic or cooperative nature.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>321-9855</td>
<td>Mathematical Modeling</td>
<td>Complex numbers, the Riemann sphere, complex functions, calculus with complex variables, Laurent series, residues, applications of complex functions, Fourier series, applications to partial differential equations and boundary value problems. The aim of this course is to familiarize the students with complex analytic methods which have proven especially useful in a broad spectrum of engineering applications as well as partial differential equations and boundary value problems.</td>
</tr>
<tr>
<td></td>
<td>Optional Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>321-7602</td>
<td>Practice</td>
</tr>
<tr>
<td></td>
<td>321-2630</td>
<td>Simulation of Communication Systems using Matlab</td>
</tr>
</tbody>
</table>
ule allows the students to develop their skills in performance evaluation of communication systems using Matlab and to understand the meaning of significant performance metrics of digital communication systems. Finally, by simulating modern communication systems (cooperative relaying, MIMO), the students will acquire a deep understanding of their operation.

**321-2650 Advanced Topics in Enterprise Resource Planning (ERP) Systems**

Introduction – basic concepts – definitions. General ledger module. Sales module. Procurement module. Inventory – warehouse management module. Production module. Fixed assets module. For all the above modules: description of files’ structure (master files – transaction files), presentation of capabilities per category (concerning master files, transaction files, reporting and set-up – configuration and customization of the module according to the specificities and the special needs of user firms), and then extensive presentation and analysis of these capabilities in Microsoft Navision ERP. Implementation of ERP Systems: alternative approaches to the time planning of an ERP implementation project, business process redesign, use of existing software packages, methodology/stages of implementation, critical success factors, change management.

Understanding in more depth of the main files (master+transaction) as well as the main capabilities/functionality of the main modules of an Enterprise Resource Planning (ERP) System. Understanding the main mechanisms and capabilities for interconnection of the modules, as well as adaptation to the special needs of a company. Understanding the existing alternative approaches and methodologies for the implementation of ERP systems in companies, as well as its critical success factors. Practical familiarization with these modules through implementations of relevant operational scenarios in a real ERP system. The acquisition of competences for substantial and constructive participation in ERP implementation project teams, at the side of either an information technology or consulting company, or a user company of such systems, and also in projects of modifications, upgrades, interconnections, etc. of such systems. Acquisition of competences for the exploitation of ERP systems for supporting important functions and processes of companies.

**Free Course**

**321-0151 English Language (TOEFL)**

See course 321-0161.
9th Semester

Cycle Information and Communication Systems Security and Privacy

321-99100 Regulatory and Social Issues in Information Society


The objective of this course is the discussion and the closer examination of issues concerning the conceiving, understanding and dealing with information and communication technologies and their application by users, society and economic, technological and political organizations.

Cycle Information Systems and Entrepreneurship

321-5402 Information Systems Strategy and Investment


Skills of creating information systems strategic plan in a firm, for the support and enrichment (e.g., new products, services, geographical regions) of its overall strategy ροίόντα, υπηρεσίες, γεωγραφικές περιοχές δραστηριοποίησης) της συνολικής στρατηγικής της.
Cycle Computer and Telecommunication Technologies

**321-10651 Satellite Communications**

Introduction to satellite-link subsystems and examination of the geometrical theory of geosynchronous and geostatic satellites. Orbit mechanics. Specialized topics on the satellite channel (e.g. satellite antennas) and analysis of the satellite link in terms of radiated and received power, signal-to-noise ratios, and random effects. Analog and digital modulation and multiple access techniques and their implementation in satellite communication systems. Emphasis on the matched filter and calculation of the probability of error in digital communication systems. Detailed examination of the satellite transponder. Emphasis on transponder signal processing and the effects of nonlinearities in satellite amplifiers. Development of satellite networks based using multiple access techniques. Digital Video Broadcasting and applications.

This lesson aims at understanding the methods of analysis and design of satellite communication systems. This course provides the necessary knowledge of the basic principles and characteristics of satellite communication networks, and the field of their efficient application. The course enables analysis and design of satellite links for various types of services and familiarity with the terms and techniques related to performance evaluation and the availability of such links. Upon completion of this course, the students will have acquired the background to understand the principles of analysis and design of satellite systems and be able to analyze and design elementary links and satellite orbits in system level.

**321-6554 Multimedia**


Understanding of basic meanings concerning the representation, coding and transmission of multimedia data. Skill of analyzing the individual features of the different multimedia data (e.g., image, sound, video). Skill of developing multimedia applications.
Cycle Communication Systems and Networks

321-9403 Broadband Networks


The goal of this module is to familiarize students with various types of wideband networks. Through theory, the student will gain knowledge on various topics of wired and wireless wideband networks. Furthermore, the student will acquire deep knowledge of the design and the architecture of wideband networks. Moreover, the module provides user requirements and the ways that modern wideband networks satisfy these requirements. Finally, the student will be educated on how wideband networks can interconnect and complement each other targeting the provision of robust wideband services.

321-9120 Design and Development of Mobile Computing Applications

Introduction to mobile computing, emerging mobile technologies and applications, issues and challenges, smartphone applications and services, mobile computing software platforms, mobile Web, responsive web design, geolocation, context-aware applications, Android platform architecture, programming in Android environment, case studies.

Learning of the basic principles of application development for mobile devices. Understanding and appreciation of the issues involved in designing and developing context-aware applications for mobile devices. Understanding the architecture of the Android platform and the process of developing applications for mobile devices.
Cycle Information Management and Intelligent Systems

321-7405 Knowledge Engineering and Knowledge Systems


On completion of this module, students are expected to be able: to explain the role of knowledge engineering within Artificial Intelligence, to identify and explain the various stages in the development of a knowledge based system, to design and develop a rule-based knowledge based system, to design and develop a case-based knowledge based system, to design and Develop Bayesian reasoning systems, to understand the mathematical foundations of Bayesian networks, to compare and contrast rule- and case-based knowledge based systems, to design and develop Semantic Web concepts and ontologies, to compare and contrast Semantic Web markup Technologies, and to build Ontologies and Reasoning systems in Protégé.

321-6606 Computer Vision

Image formation - Feature-based image alignment - Structure from motion - Computational photography - Feature detection and matching - Dense motion estimation - Image stitching - Stereo correspondence – Recognition

The course provides basic knowledge for understanding and using computer vision systems. The student learns the basic principles and common techniques for the designing and development of computer vision systems.
Cycle **Computer Science Foundations**

**321-9003  Advanced Data Structures**


Students must comprehend the design principles and capabilities of advanced data structures.

**321-10001  Algorithms and Combinatorial Optimization**

Mathematical modeling of combinatorial optimization problems, in the realm of areas such as Biology, Networks, time-dependent processes, resources allocation, game theory, etc. Study of techniques to tackle such problems, as branch and bound, heuristics, probabilistic techniques. Exploiting the limitations of these techniques and case study of resent developments. Dynamic programming and approximation algorithms. Polynomial time approximation schemes. Local search methods, PLS-completeness, neighborhood structures. Local search methods in the perspective of game theory.

Mathematical modeling of combinatorial optimization problems from a variety of areas and how to tackle these via algorithms.
Optional Course

321-2600 Risk Theory


The course aims at dealing with the principles of external events theory. The stochastic models that can predict the collapse of large systems, such as computer systems are presented in an analytical and interactive way. It stimulates students to further research on computational methods using programming languages such as C++ or mathematical package as Matlab. Using data, students will be able to estimate the system parameters (such as averages or variations) of the distributions that we use in extreme events.

10th Semester

321-7102 Diploma Thesis

Complete an original development and/or research project.

Deeper approach in a field of the student’s interest. Familiarity with the process of addressing and solving complex problems.
STUDENT SUPPORT

Student Services

The following services are provided for the students of the Department:

- Full medical and hospital care, which includes: medical examination, hospital examination, pharmaceutical care, clinical examinations, examination at home, births, physiotherapy, dental care and orthopedics.

- Discount tickets for public transport, including ferry, for traveling inside the country, according to the law. The discount is interrupted throughout periods of possible suspension of study, military service, loss of student status or upon graduation or completion of six years of study.

- Free meals under conditions which relate to individual and family financial situation. Free meals stop when a student successfully completes their studies, or after six (6) years from registration, regardless of whether they have completed their studies.

- Student loans depending on students’ financial situation and their performance in their studies. 50% of the amount of the loan awarded to each student is a scholarship and the remaining 50% is an interest-free loan.
Scholarships are awarded to students based on their academic performance and financial condition. The Greek State Scholarship Foundation awards scholarships and prizes to students who excelled: a) in the examinations for entering the Department and b) in semesters’ examinations for each academic year. The scholarships are granted according to the students’ economic situation and academic performance. For awards, which consist of a written certificate and a grant, only the performance of the student is taken into account. In addition to the above scholarships, institutions such as the City Samos, the North Aegean Administrative Division and other local organizations award students with some scholarships based on their performance in studies.

As far as the prerequisites, supporting documents, and application periods for the various scholarships are concerned, the students are advised to contact the Department’s Secretariat.

More information is available on the Department’s website: http://www.icsd.aegean.gr.
Student Club

Students’ parallel activities are part of their academic life and contribute positively to the development of their personality. The main venue for such activities is the Student Club. The purpose of the Student Club is entertainment, sports and the development of the artistic inclinations of the students. The University seeks to extend the activities of the Club and encourages the establishment of new committees.
Student Association – Student Groups

The Student Association supports sporting, recreational, artistic, academic and other activities through student groups that operate independently. Student groups are open to all undergraduate and postgraduate students of the Department, while there is always the possibility of setting up new groups.

Currently there exist the following groups:

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Contact information</th>
</tr>
</thead>
</table>
| Men and Women Sports Teams | Faculty of Science Trainer Euripides Gerontis  
egerontis@aegean.gr |
ieee@aegean.gr |
| Artistic group | artsam@aegean.gr |
| Music group | musicteam@aegean.gr |
| Astronomy group | aristarchos@samos.aegean.gr |
| University of the Aegean Juggling club | jugglingc@aegean.gr |
| Cycling club | bike_club@samos.aegean.gr |
| Faculty of Science Football Club  
(participates in the local championship of the Greek Football Federation) | samos_sthe_fc@aegean.gr |
| Chess group | skaki@samos.aegean.gr |
| Students cafeteria – “Algorithm of Taste” | flesxi@aegean.gr |
| Students magazine – “Φ” (“Phi”) | f@samos.aegean.gr |
| Students Radio Station “Choros” (“Space”) 94.2 FM | http://xoros.samos.aegean.gr  
xoros94.2@samos.aegean.gr |
| Dancing group | samosdance@aegean.gr |
SUPPORTING SERVICES

Library

The Library of the University Unit of Samos is housed in a renovated neoclassical building of 1903, the "Chatziianneio". It is an annex of the Central Library of the University of the Aegean, which is located in Lesvos (Mytilene). It operates as a lending library and the opening hours are 8:30-15:00 daily, while, during the winter and spring semester, some days open until 20:00, depending on the available administrative staff. The library has:

- **24,000 volumes of books.** The largest part of the collection is related to the scientific disciplines of Computer Science, Mathematics, Technology and Natural Sciences, in order to serve the teaching and research needs of the Departments of the University Unit of Samos. There are also literary books, essays, etc.
- **360 foreign and Greek journal titles.** Some of these journals are available in electronic form or in microfilm.
- **Access to Electronic Scientific Databases**, which offer the capability of scientific articles search, up to the level of full text.
- **Informational material** (encyclopedias, dictionaries, etc.)
- **Doctoral Dissertations, Master and Diploma Theses.**
- **Audiovisual material** which includes disks, CDs, videotapes, cassettes, CD-ROMs, DVD-ROMs.

All the services of the Library (Lending, Orders, Cataloguing, catalog search, journals, etc.) are automated. The search can be done from the website: [http://www.lib.aegean.gr](http://www.lib.aegean.gr)
Computing Center and Laboratories

The primary purpose of the Computing Center is the development and maintenance of the necessary telecommunication and network infrastructure, for serving the teaching and research needs of the Departments of the University Unit of Samos.

In this context, the Computing Center helps and supports users during working hours, assists in software installation, develops and supports new applications as well as telecommunication and network connections that are created in Samos, and takes care of supplying, upgrading and monitoring of equipment and software. Meanwhile, students can use the specialized laboratories of the Department (Laboratories ALKMINI, ELECTRA, PHAEDRA, DORYSSA, and ARTEMIS), which have modern computer systems, software products and hardware instruments, for supporting the teaching and research needs the Department. Additionally, in Emporiki building, there is a fully equipped teleconference room.
# ACADEMIC CALENDAR

## WINTER SEMESTER 2016-2017

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of courses</td>
<td>03.10.2016</td>
</tr>
<tr>
<td>End of courses</td>
<td>20.01.2017</td>
</tr>
<tr>
<td>Semester duration</td>
<td>13 weeks</td>
</tr>
<tr>
<td>Examination period</td>
<td>From 23.01.2017 to 17.02.2017</td>
</tr>
<tr>
<td>Holidays</td>
<td></td>
</tr>
<tr>
<td>Polytechnion Anniversary</td>
<td>17.11.2016</td>
</tr>
<tr>
<td>Christmas Holidays</td>
<td>22.12.2016 – 06.01.2017</td>
</tr>
<tr>
<td>Religious Holiday (Trion Ierarhon)</td>
<td>30.01.2017</td>
</tr>
</tbody>
</table>

## SPRING SEMESTER 2016 - 2017

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of courses</td>
<td>20.02.2017</td>
</tr>
<tr>
<td>End of courses</td>
<td>02.06.2017</td>
</tr>
<tr>
<td>Semester duration</td>
<td>13 weeks</td>
</tr>
<tr>
<td>Examination period</td>
<td>From 06.06.2017 to 30.06.2017</td>
</tr>
<tr>
<td>Holidays</td>
<td></td>
</tr>
<tr>
<td>Monday, the first day of Lent</td>
<td>27.02.2017</td>
</tr>
<tr>
<td>National Holiday</td>
<td>25.03.2017</td>
</tr>
<tr>
<td>First of May Holiday</td>
<td>01.05.2017</td>
</tr>
<tr>
<td>Students' elections</td>
<td>the exact date has not yet been decided</td>
</tr>
<tr>
<td>Religious Holiday (Holy Spirit)</td>
<td>05.06.2017</td>
</tr>
</tbody>
</table>