DESCRIPTION OF THE COURSE

<table>
<thead>
<tr>
<th>Name of the course: Information Security</th>
<th>Code: BCSCe19</th>
<th>Semester: 3</th>
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<tr>
<td>Type of teaching: Lectures and laboratory work</td>
<td>Lessons per week: L – 2 hours, LW – 1 hours</td>
<td>Number of credits: 4</td>
</tr>
</tbody>
</table>

LECTURER:
Assos. Prof., PhD Roumen Trifonov (FCSC), tel.: 965 2838, e-mail: r_trifonov@tu-sofia.bg
Technical University of Sofia

COURSE STATUS IN THE CURRICULUM: Obligatory subject for the students of specialty Computer Science and Engineering in the bachelor programme of the Faculty of Computer Systems and Control at TU-Sofia.

AIMS AND OBJECTIVES OF THE COURSE: The aim of the course is to acquaint students with the basic principles, standards and technics in the field of technologies for computer security. This will help them in future to professionally solve tasks for choice of effective tools for protection of computer systems and networks and use in practice.

DESCRIPTION OF THE COURSE: The course discusses the problems concerning design, building and applying methods and technical tools ensuring computer security. The lectures begin with introduction to basic definitions and key futures in the field. It presents the most important politics, approaches, standards and attacks in network and information security, also the proper technics for protection of network, firewall, protected e-messages interchange, DNS, DDoS/Botnets and Web-application protection. The laboratory work helps to better rationalization of lecture material and contribute to formation of practical skills.

PREREQUISITES: Basic knowledge in informatics.

TEACHING METHODS: Lectures (with slides, multimedia projector) and additional text materials; laboratory work (based on instructions) with computer.

METHOD OF ASSESSMENT: written examination at the end of the first semester.

INSTRUCTION LANGUAGE: English.

DESCRIPTION OF THE COURSE

<table>
<thead>
<tr>
<th>Name of the course</th>
<th>Code:</th>
<th>Semester:</th>
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<tbody>
<tr>
<td>Computer Architectures</td>
<td>BCSCe20</td>
<td>3</td>
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</table>

Type of teaching: Lectures and laboratory work
Lessons per week: L – 2 hours; LW – 1 hour
Number of credits: 4

LECTURER: Prof. Ph.D. Plamenka Borovska
Phone.: 965 25 24, e-mail: pborovska@tu-sofia.bg, Technical University of Sofia, Faculty of Computer Systems and Control, Department of Computer Systems and Technologies.

Assistant Prof. Iva Nikolova
Phone.: 965 26 80, e-mail: inni@tu-sofia.bg, Technical University of Sofia, Faculty of Computer Systems and Control, Department of Computer Systems and Technologies.

Assistant Prof. Ph.D. Simeon Tsvetanov
Phone.: 965 22 24, e-mail: s_tsvetanov@tu-sofia.bg, Technical University of Sofia, Faculty of Computer Systems and Control, Department of Computer Systems and Technologies.

COURSE STATUS IN THE CURRICULUM: Compulsory for Bachelor degree students of the specialty “Computer Science and Engineering” of the Faculty of Computer Systems and Control at the Technical University of Sofia.

AIMS AND OBJECTIVES OF THE COURSE: The goal of the course is to provide a solid background for students: to learn the concepts and mechanisms relating to the design of modern computer systems and be able to explain how these concepts and mechanisms interact; to acquire knowledge about the architecture of computer systems; to apply this knowledge to solve new problems of computer design.

DESCRIPTION OF THE COURSE: The acquired knowledge and skills in this course could be applied in traditional engineering and specialized, high-tech field of computer and information technology for modern computer systems and multi-core platforms.

Upon completion of the course students will:
• know the concepts, principles, models and technologies for design and implementation of effective computer architectures;
• To understand and apply the theory in analysis and design of computer architectures in terms of finding the right balance between increasing demands for increasing performance on the one hand and the existing technological limitations on the other.
• be able to do a comparative analysis and assess the advantages and disadvantages between alternative solutions

PREREQUISITES: Knowledge of Programming, Operating Systems, Digital and microprocessor technology.

TEACHING METHODS: Lectures using video - presentation with beamer, laboratory works aimed at study, implementation and analyses of sample problems and case studies; course work aimed at implementation and analyses of solving certain problem by given Grid and Cloud Architecture.

METHOD OF ASSESSMENT: Exam during the exam session with duration two academic hours, students give written answers to 3 compulsory and 5 optional questions, problems or tasks (60%), laboratory works (25%), course work (15%).

INSTRUCTION LANGUAGE: English

BIBLIOGRAPHY:
5. TPC: www.tpc.org, SPEC: www.spec.org
**DESCRIPTION OF THE COURSE**

<table>
<thead>
<tr>
<th>Name of the course</th>
<th>Code: BCSCe21</th>
<th>Semester: III</th>
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<tr>
<td>Fundamentals of logical design</td>
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<th>Type of teaching:</th>
<th>Lessons per week:</th>
<th>Number of credits:</th>
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</thead>
<tbody>
<tr>
<td>Lectures, tutorial and laboratory work</td>
<td>L – 15 hours; TW – 15 hours.</td>
<td>5</td>
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</tbody>
</table>

**LECTURER:**
Diana Grigorova (FCSC) – tel.: 965 3523 e-mail: dgrigorova@tu-sofia.bg
Technical University of Sofia

**COURSE STATUS IN THE CURRICULUM:** Compulsory course for the students of specialty Computer Science and Engineering in the bachelor programme of the Faculty of Computer Systems and Control.

**AIMS AND OBJECTIVES OF THE COURSE:** The aim of the course is to give fundamental knowledge for analysis and synthesis of computer components.

**DESCRIPTION OF THE COURSE:** The course is an introductory course in computer logic and digital system design. The main topics concern: Boolean algebra, fundamentals of combinational logic circuits, fundamentals of sequential synchronous and asynchronous circuits. The material is illustrated with examples of basically computer components analysis and synthesis.

**PREREQUISITES:** Discrete mathematics.

**TEACHING METHODS:** Lectures using video-presentation with beamer. Tutorial works on given problems. Laboratory works with a program simulator.

**METHOD OF ASSESSMENT:** Exam during the exam session with duration two academic hours, students give written answers to four tasks. Final mark is calculated based on the written exam (70%), tutorial work (20%) and laboratory work (10%).

**INSTRUCTION LANGUAGE:** English

**BIBLIOGRAPHY:** ...

[http://www.ee.surrey.ac.uk/Projects/Labview/index.html](http://www.ee.surrey.ac.uk/Projects/Labview/index.html)
DESCRIPTION OF THE COURSE

<table>
<thead>
<tr>
<th>Name of the course:</th>
<th>Code: BCSCe22</th>
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<tr>
<td>Operating Systems</td>
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Type of teaching: Lectures and Laboratory exercises

<table>
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<tr>
<th>Hours per week:</th>
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</thead>
<tbody>
<tr>
<td>L – 2 hours; LE – 2 hours</td>
<td>4</td>
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</table>

LECTURER: Assoc. Prof. Dr. George Ilinchev Popov
Technical University of Sofia, Computer Systems Department, tel. 9653525, popovg@tu-sofia.bg

COURSE STATUS IN THE CURRICULUM: Compulsory for the students speciality „Computer Science and Engineering“ – bachelor degree (Faculty of Computer Systems and Control, Technical University-Sofia).

AIMS AND OBJECTIVES OF THE COURSE: The aim of the course is to ensure that the students understand the extent of the use of an operating system prior to a detailed study of internals. The topics of the course address both the use of operating systems and their design and implementation. A lot of the principles involved in operating systems use have wider applicability across the field of computer science, such as concurrent programming. Studying internal design has relevance in such diverse areas as dependable programming, algorithm design and implementation, building secure and safe systems, etc.

DESCRIPTION OF THE COURSE: The discipline gives the fundamental concepts that are applicable to a variety of the operating systems. The emphasis is on solving problems encountered in designing the operating systems, regardless of the underlying hardware. The main topics are: overview of operating systems, operating systems principles, processes and concurrency, CPU scheduling and dispatching, file systems, memory management, device management, distributed systems, security and protection. UNIX, Linux, Windows, and others modern systems are included as examples of existing systems.

PREREQUISITES: Basic knowledge in structure and functionality of computer devices and system, programming languages (C/C++, Pascal), software engineering.

TEACHING METHODS: Lectures (with slides, multimedia projector) and text materials; laboratory exercises (based on instructions) with a tutorial for every laboratory theme; project consulting; web site of the course.

METHOD OF ASSESSMENT: Written examination, based on two assessments during the semester (80%) and classes (20%). Every student has to demonstrate his own project. He is asked about problems encountered in the designing and implementation, and his decision.

INSTRUCTION LANGUAGE: English

BIBLIOGRAPHY
4. Лилян Николов, Операционни системи 6 изд., Сиела, 2009 г
DESCRIPTION OF THE COURSE

<table>
<thead>
<tr>
<th>Name of the course</th>
<th>Code: BCSCe23</th>
<th>Semester: 3</th>
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<tbody>
<tr>
<td>Programming languages</td>
<td>Lessons per week: L – 2 hours; LW – 2 hours</td>
<td>Number of credits: 5</td>
</tr>
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</table>

LECTURER:
Assoc. Prof. Ph.D. D. Gotseva (FKSU) – tel.: 965 23383, email: dgoceva@tu-sofia.bg
Technical University of Sofia

COURSE STATUS IN THE CURRICULUM: Compulsory for the students’ specialty “Computer Science and Engineering” of the Faculty of Computer Systems and Control of Technical University of Sofia – bachelor degree.

AIMS AND OBJECTIVES OF THE COURSE: The aim of the course is to teach the students with the algorithmic and assembler programming languages regardless of their environment. The accent of the course is upon the syntax and semantics of the language constructs. Different approaches are presented for achieving a given aim and the advantages and the disadvantages of the concrete implementations.

DESCRIPTION OF THE COURSE: The main topics concern: The alphabet – basic and extend, Identifiers, Constants-literal and named, different type of constant present – numeric, character, string, logic, Comments, Directives, Data classifications, Definition and declaration, Storage specifiers, Declarator – different kinds, complex declarator – reading rules, abstract declarator – typed names, specific modifiers, Integers, real, characters, enumerated data – type specifiers, value range, inner presenting, Arrays – arrange arrays into memory, pointers, relationship between arrays and pointers. Structures and unions, Expressions in C – operands, rules of precedence, execution of the operators, side effects, data conversion (usual arithmetic conversion and assignment conversion), Statements in C, Structure and execution of C program, Multiple files structure, Calling functions, Parameters of main function, etc.

PREREQUISITES: Computing I, Computing II, basic knowledge of algorithms

TEACHING METHODS: Lectures, using slides, case studies, laboratory and course work, work in teams, and course work description preparation and defense.

METHOD OF ASSESSMENT: One 1.5-hour assessment at end of semester (60%), laboratories (20%), course work (20%)

INSTRUCTION LANGUAGE: English

DESCRIPTION OF THE COURSE

Name of the course | Code: BCSCe24 | Semester: 3
--- | --- | ---
Databases |  |  

Type of teaching: Lectures and laboratory work
Lessons per week: L – 2 hours; LW – 2 hours
Number of credits: 5

LECTURER:

Assoc. Prof. Ph.D. D. Gotseva (FKSU) – tel.: 965 23383, email: dgoceva@tu-sofia.bg
Technical University of Sofia

COURSE STATUS IN THE CURRICULUM: Compulsory for the students’ specialty “Computer Science and Engineering” of the Faculty of Computer Systems and Control of Technical University of Sofia – bachelor degree.

AIMS AND OBJECTIVES OF THE COURSE: The aim of this course is to provide the basis for a solid education in the fundamentals of database technology and to show the way in which this field is currently developing and is likely to develop in the future.

DESCRIPTION OF THE COURSE: The main topics concern: Introduction into Databases (DB), Basic terms and concepts, DB architecture, Users and DB administrators, External view, conceptual view and internal view of DB, Mapping, Database Management System (DBMS), Data redundancy, Data integrity, Data analysis and it’s life cycle, Entity-Relationship (ER) modeling, Entities, Attributes, Primary and foreign keys, Candidate keys, Relationships and their characteristics, ER diagram creating, Problems with ER models, Enhanced ER models (EER), ER/DB relations mapping, DB normalization, Normal forms: 1NF, 2NF, 3NF, BCNF, 4NF, and 5NF, DB models, SQL basics, CREATE statements, SELECT statement, Joining tables in SELECT statement, Aliases, Subqueries, UNION, MINUS, and INTERSECT clauses, Views, Working with views, INSERT, UPDATE, and DELETE statements, Transactions, Concurrency and transactions, Transaction schedules, „Lost updates” scenario, Uncommitted dependency, „Inconsistency” scenario, Serialization, Concurrency, Locking mechanism, Deadlock, Two-phase locking, Security, DBMS level protection, GRANT statement, etc.

PREREQUISITES: Computing I, Computing II, Programming Languages

TEACHING METHODS: Lectures, using slides, case studies, laboratory and course work, work in teams.

METHOD OF ASSESSMENT: Written exam (80%), laboratory works (20%).

INSTRUCTION LANGUAGE: English

DESCRIPTION OF THE COURSE

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<th>Name of the course:</th>
<th>Code: BCSCe25</th>
<th>Semester: 3</th>
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<tr>
<th>Type of teaching:</th>
<th>Lessons per week:</th>
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<tr>
<td>Laboratory work</td>
<td>LW – 2 hours</td>
<td>2</td>
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</table>

LECTURER:
Senior Lecturer Yordanka Angelova (DFLAL), – tel.: 965 3162, email: danny_angelova@tu-sofia.bg
Technical University of Sofia

COURSE STATUS IN THE CURRICULUM: Compulsory for students on the “Computer Science and Engineering” study programme leading to a Bachelor’s degree (Faculty of Computer Systems and Control of TU-Sofia).

AIMS AND OBJECTIVES OF THE COURSE: Introduction and acquisition of language related to basic topics in the field of computer science. Development of skills enabling students to use scientific literature in that specific area and to participate successfully in the process of training.


PREREQUISITES: Basic knowledge in general English (level A2 under the Common European Framework).

TEACHING METHODS: Practical work in laboratory classes. A textbook published for that specific course is used.

METHOD OF ASSESSMENT: Continuous assessment.

INSTRUCTION LANGUAGE: English.

BIBLIOGRAPHY:
DESCRIPTION OF THE COURSE

<table>
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<th>Name of the course</th>
<th>Code: BCSce26</th>
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<td>Computer Periphery</td>
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</table>

Type of teaching: Lectures and Laboratory work
Lessons per week: L – 2 hours, LW – 1 hour
Number of credits: 4

LECTURER:
Ass. Prof. Sergey Nedev, Ph.D. (FCSC), tel.: 965 3525, email: s_nedev@tu-sofia.bg
Technical University of Sofia

COURSE STATUS IN THE CURRICULUM: This course is compulsory for the students from the speciality Computer Science and Engineering in the bachelor programme of the Faculty of Computer Systems and Control.

AIMS AND OBJECTIVES OF THE COURSE: The general aim of this course is to make students familiar with the logical structure and organization of the peripheral devices (printers, plotters, HDDs, CDs, DVDs, monitors, etc.) as a part of the state-of-the-art computer systems as well as with the information media carriers applied.

DESCRIPTION OF THE COURSE: The following topics are included in the course content: physical presentation of information over different physical carriers, faults detection and correction during the process of storage of information, organization of write/read operations in devices which use magnetic-media carriers, methods for registration of visual information, organization of write operation using indication, optical disks based memories, organization of the read process from the carriers of visual information, reliability of computer periphery, etc.

PREREQUISITES: The subject has the input links with the following disciplines: Physics, Chemistry, Machine Mechanics, Materials Science, Theoretical Electrical Engineering.

TEACHING METHODS: Lectures, presented using additional technical tools. The laboratory exercises output with protocols.

METHOD OF ASSESSMENT: Two one-hour written tests at the middle and at the end of the semester (80%) and laboratories (20%).

INSTRUCTION LANGUAGE: English.

DESCRIPTION OF THE COURSE

<table>
<thead>
<tr>
<th>Name of the course:</th>
<th>High-Performance Computer Systems</th>
<th>Code: BCSCe27</th>
<th>Semester: 4</th>
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<tr>
<td>Type of teaching:</td>
<td>Lectures, Laboratory Work Course work</td>
<td>Hours per week:</td>
<td>L – 2 hours, LW – 2 hours</td>
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</table>

LECTURER:
Prof. Ph.D. P. Borovska (FCSC) – tel.: 965 2524, email: pborovska@tu-sofia.bg
Technical University of Sofia

COURSE STATUS IN THE CURRICULUM: Compulsory for the students of specialty Computer Science and Engineering in the bachelor programme of the Faculty of Computer Systems and Control.

AIMS AND OBJECTIVES OF THE COURSE: At the end of the course the students are expected to know the concepts, principles, models and architectural styles of high-performance computer systems and to apply them in the design and development of effective infrastructure of high-performance computer systems, to make comparative analyses and to evaluate the advantages and disadvantages of the alternative decisions.

DESCRIPTION OF THE COURSE: The main topics concern: Taxonomy. Architectural styles. Technological specifics; Scalable high-performance computer systems; Vector processors; Massively parallel processors; Clusters of servers and workstations; Parallel input-output; Resource management and scheduling of computer clusters; Symmetric and CC-NUMA multiprocessors; System communication networks for high-performance computer platforms; Parameters of communication performance of system communication networks; Performance parameters of high-performance computer systems; Supercomputers; Metacomputers. Virtual supercomputers; Resource brokers of computational resources; Infrastructure for management of computational resources.


TYPE OF TEACHING: Lectures using video-presentation with beamer, laboratory works end with presentation of the results, parallelism profiles and estimation of the performance parameters of the parallel system for the certain task.

METHOD OF ASSESSMENT: Exam during the exam session with duration two academic hours, students give written answers to 3 compulsory and 5 optional questions, problems or tasks (60%), laboratory works (25%), course work (15%).

LANGUAGES OF INSTRUCTION: English.

BIBLIOGRAPHY:

6. Десислава Иванова, Архитектура на системна мрежа за колективна комуникация ГРАНД-КЛОС в суперкомпютър, Национална школа и борса за научни идеи в областта на информационните технологии, ISSN 1314-9024, стр. 67-72, РUSE, България, 26-28.06.2013 г.
8. www.top500.org
9. www.green500.org
DESCRIPTION OF THE COURSE

<table>
<thead>
<tr>
<th>Name of the course:</th>
<th>Code:</th>
<th>Semester:</th>
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<tr>
<td>Development of Linux-based Software</td>
<td>BCSCe28</td>
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</table>

Type of teaching: Lectures and Laboratory exercises

Hours per week: L – 2 hours; LE – 2 hours

Number of credits: 4

LECTURER:
Assoc. Prof. Dr. Daniela Gotseva, tel. 965 23 38; dgoceva@tu-sofia.bg
Technical University of Sofia, Computer Systems Department

COURSE STATUS IN THE CURRICULUM: Compulsory for the students’ specialty “Computer Science and Engineering” of the Faculty of Computer Systems and Control of Technical University of Sofia – bachelor degree.

AIMS AND OBJECTIVES OF THE COURSE: The course aims to give students basic knowledge and skills to apply the approaches, methods and tools for programming in real time as teach the basics of construction and realization of basic mechanisms in programming with a low level in UNIX like systems, the characteristics of the establishment of processes and threads in the language C.


PREREQUISITES: Basic knowledge in structure and functionality of computer devices and system, programming language C/C++, software engineering.

TEACHING METHODS: Lectures (using slides, multimedia projector) and text materials.

METHOD OF ASSESSMENT: One assessment at the end of the semester (80%) and exercises (20%).

INSTRUCTION LANGUAGE: English

DESCRIPTION OF THE COURSE

<table>
<thead>
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<th>Name of the course</th>
<th>Code: BCSCe27</th>
<th>Semester: 4</th>
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<tbody>
<tr>
<td>Object-Oriented Programming</td>
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<table>
<thead>
<tr>
<th>Type of teaching:</th>
<th>Lessons per week:</th>
<th>Number of credits:</th>
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<tbody>
<tr>
<td>Lectures and laboratory work, Course work</td>
<td>L – 2 hours; LW – 2 hour</td>
<td>5</td>
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</table>

LECTURER:
Prof. Ph.D. Ognian Nakov (FCSC) – tel.: 965 25 36, email: nakov@tu-sofia.bg

COURSE STATUS IN THE CURRICULUM: Compulsory for the students in Computer science and engineering in bachelor programme of the Department of Computer Systems.

AIMS AND OBJECTIVES OF THE COURSE: At the end of the course the students are expected to be able to understand object-oriented programming and design technology and practical skills – how to use class libraries, how to define a class of objects using concrete object-oriented programming language.

DESCRIPTION OF THE COURSE: The course objectives is to acquaint students with the object-oriented conception, basic ideas and their realization in different object-oriented programming languages; to teach object-oriented analysis and design; to give object-oriented programming training, using class libraries for an individual design which consists of number of classes.

PREREQUISITES: Some programming languages and program algorithms.

TEACHING METHODS: Lectures, using slides, case studies, laboratory and course work, work in teams and course work description preparation and defence.

METHOD OF ASSESSMENT: Two assessments, laboratories, course work

INSTRUCTION LANGUAGE: Bulgarian

BIBLIOGRAPHY:
5. Допълнителна литература:
DESCRIPTION OF THE COURSE

<table>
<thead>
<tr>
<th>Name of the course: Computer Networks</th>
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<th>Semester: IV</th>
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<tr>
<td>Type of teaching: Lectures and laboratory work</td>
<td>Lessons per week: L – 2 hours; LW – 2 hours</td>
<td>Number of credits: 5</td>
</tr>
</tbody>
</table>

LECTURERS:

Associate Prof., PhD Georgi Naydenov (FCSC)  
tel.: 965 21 94, e-mail: gnayd@tu-sofia.bg  
Technical University of Sofia

Associate Prof., PhD Petko Stoyanov (FCSC)  
tел. 965 2194, e-mail: pss@tu-sofia.bg  
Technical University of Sofia

COURSE STATUS IN THE CURRICULUM: Compulsory course in English for the students of specialty “Computer Science and Engineering” in the bachelor programme of the Faculty of Computer Systems and Control.

AIMS AND OBJECTIVES OF THE COURSE: The aim of the course is to acquaint students with the basic principles, standards and tendencies of development in the field of computer networks. This will help them in future to professionally solve system tasks in the area of network communications.

DESCRIPTION OF THE COURSE: The course discusses the problems concerning design, building and application of computer networks. The lectures begin with an introduction to computer networks, principles of building, historical development and their contemporary classification. Open system interconnection model of ISO is presented. Teaching course includes basic principles of building and functioning of Local Area Networks (LAN) illustrated by practical technical solutions in LAN Ethernet. The lectures on the most popular in the world computer network Internet present its basic characteristics, principles of functioning and application. The laboratory work helps to better rationalization of lecture material and contribute to formation of practical skills.

PREREQUISITES: Basic knowledge in informatics.

TEACHING METHODS: Lectures with slides, multimedia projector and additional text materials; laboratory work based on instructions with a tutorial for every laboratory theme.

METHOD OF ASSESSMENT: Final mark is based on a written examination during the exam session with duration two academic hours in the end of the fourth semester. Students must answer 40 questions concerning the lectures and the laboratory works.

INSTRUCTION LANGUAGE: English.

BIBLIOGRAPHY:

- Douglas C., Computer Networks and Internets, Prentice Hall PTR, 5th edition
- Peterson L., Davie B., Computer Networks, ELSEVIER, 4th edition
DESCRIPTION OF THE COURSE

<table>
<thead>
<tr>
<th>Name of the course: Programmable Logic Systems</th>
<th>Code: BCSCe31</th>
<th>Semester: IV</th>
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<td>Lessons per week: L-2h, LW- 2h.</td>
<td>Number of credits: 5</td>
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</table>

LECTURER: Assoc. Prof. Ph.D. Peter Manoilov,
Phone: 965-2484, Email: p.manoilov@mail.bg
Technical University of Sofia, Faculty of Computer Systems and Control, Dept. of Computer Systems and Technologies.

COURSE STATUS IN THE CURRICULUM: Compulsory for regular education of the student specialty "Computer science and engineering", Bachelor degree, Faculty of Computer Systems and Control, Technical University of Sofia.

AIMS AND OBJECTIVES OF THE COURSE: The aim of this course is to give knowledge and skills in the area of CAD design and implementation of computer units and systems on the contemporary programmable logic devices (integrated circuits).

DESCRIPTION OF THE COURSE: The syllabus considers the basic topics of the theory and practice of programmable logic devices design and utilization: types of programmable logic, hardware design and development, hardware description languages (HDL), design methodology and CAD systems for hardware and software co-design and implementation on contemporary programmable logic devices.

PREREQUISITES: Basic knowledge on microelectronics, combinatorial and sequential logic devices, digital circuit design, computer architectures, programming languages.

TEACHING METHODS: Lectures, using black/white board and slide presentations, laboratory work, using PC-based CAD systems and programmable VLSI chips on reference boards.

METHOD OF ASSESSMENT: Written work during the semester (forms 70% of the final mark) and laboratory work (forms 30% of the final mark).

INSTRUCTION LANGUAGE: English

BIBLIOGRAPHY:
DESCRIPTION OF THE COURSE

<table>
<thead>
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<th>Name of the course:</th>
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</table>

Type of teaching: Laboratory work

Lessons per week: LW – 2 hours

Number of credits: 2

LECTURER:
Senior Lecturer Yordanka Angelova (DFLAL), – tel.: 965 3162, email: danny_angelova@tu-sofia.bg
Technical University of Sofia

COURSE STATUS IN THE CURRICULUM: Compulsory for students on the “Computer Science and Engineering” study programme leading to a Bachelor’s degree (Faculty of Computer Systems and Control of TU-Sofia).

AIMS AND OBJECTIVES OF THE COURSE: Introduction and acquisition of language related to basic topics in the field of computer science. Development of skills enabling students to use scientific literature in that specific area and to participate successfully in the process of training.


PREREQUISITES: Basic knowledge in general English (level A2 under the Common European Framework).

TEACHING METHODS: Practical work in laboratory classes. A textbook published for that specific course is used.

METHOD OF ASSESSMENT: Continuous assessment.

INSTRUCTION LANGUAGE: English.

BIBLIOGRAPHY: