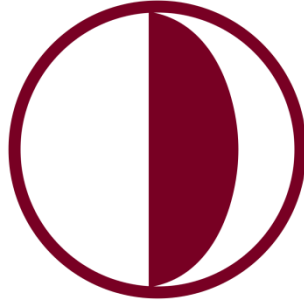




NEAR EAST UNIVERSITY

**FACULTY OF ECONOMICS AND
ADMINISTRATIVE SCIENCES**

**DEPARTMENT OF COMPUTER
INFORMATION SYSTEMS**

COURSE CATALOGUE

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This course catalogue is developed to give information about the Computer Information Systems programme to all who are interested in the Near East University, Department of Computer Information Systems eg. future students, parents, academics, universities and institutions, bodies abroad.

The catalogue includes key information about the duration of the programme, mode of study, course description, credit and grading system etc. of the programme.

We hope you can find the necessary information to your questions about the Department of Computer Information Systems and the course programme.

Sincerely

Assoc. Prof. Dr. Nadire Çavuş

Chairperson

COMPUTER INFORMATION SYSTEMS (CIS) UNDERGRADUATE PROGRAMME

1. GENERAL INFORMATION ABOUT THE DEPARTMENT OF COMPUTER INFORMATION SYSTEMS

The Near East University, Faculty of Economics and Administrative Sciences (FEAS) was founded in 1988 with two departments, Business Administration and Computer Information Systems. As a result of the recent advances and innovations in communications technology, internet, and related fields, computers have become part of everyday life. Computer Information Systems is currently one of the fastest growing fields and the demand for graduates in this field is increasing all the time. The Degree programme offered by the faculty aims to train students in this field and prepare them for a career in computer related jobs.

CIS programme has been designed to give students both a theoretical and a practical understanding of the fundamental issues related to computers and their use in everyday life. The programme is well structured and has been designed with the aim of providing an excellent foundation in many areas of the current computer technology. The programme offers courses in computer software, database systems, computer programming, operating systems, computer networks, mobile application, and business applications of computers. In addition, the program aims to teach and develop the leadership skills of students so that they can take managerial positions and be leaders in their future careers.

Graduates from our programme can virtually find jobs in all places where computers are used. Some popular working areas of our graduates are: IT departments of private and public companies, communications and networking departments, IT consultancy, research and development, and education.stems.

The department has two sections: English and Turkish, thus, the language of instruction is English and Turkish.

- **Official length of programme:** 4 years (excluding one year of English preparatory class for English programme), 2 semesters per year, 14 weeks per semester
- **Mode of study:** Full time

2. PROFILE OF THE PROGRAMME AND METHOD OF EDUCATION

The degree programme has been organized in a modular way. In the programme each module is a consistent and standalone study material consisting of 4 – 8 ECTS points. The course structure has been organized such that students have no difficulties in moving from one semester to the next. Some courses have pre-requisites where students first must take the pre-requisite course successfully before taking the next dependent course. These pre-requisites are outlined in the course program clearly.

Students start twice a year, in autumn and in spring. All the core modules are offered twice a year, in each semester. The elective courses are offered in later years of the study. The same elective courses are not offered in each semester and this gives a wider choice to the students.

The size and duration of each module is such that students can complete a module successfully in a semester. Some modules include practical as well as laboratory times and the theoretical aspects of such courses have been designed so that students can complete both the theoretical and the practical sessions in the given time. Each module is completed in one semester. The programme allows for students to be transferred to other universities if they wish so and continue at other universities without much disruption to their modular degree programs.

The Department of Computer Information Systems appreciates modern concepts and new methods in teaching and education methods that support educational objectives in addition to traditional methods. Traditional class attendance is compulsory for all courses except graduation projects in the Faculty of Economics and Administrative Sciences. Problem solving sections of knowledge based courses are integrated with the theory sections.

The Department of Computer Information Systems aims to reach its educational objectives by using several teaching methods. Both the traditional and modern teaching methods are employed at the department. Traditional teaching methods are face-to-face lectures and are class based, requiring all students to attend classes. At least 75% of class attendance is compulsory for all the courses. Lectures are conducted using standard computer based presentations in the form of pre-prepared slides. In addition, white boards and marker pens are used whenever necessary in order to explain difficult topics in greater detail, or to answer student questions. Students are encouraged to take notes during the presentations and ask questions if there are points that they are not clear about. Electronic copies of the slides are sent to students by e-mail after each class, and students are encouraged to go through the slides in their own time and make sure that they understand all presented information.

In traditional methods like face to face lecturing, varieties of other methods are implemented to support teaching depending on the course and instructor. Most computer based learning requires the use of computers as part of the learning process. Students use the departmental computer laboratories for their practical work in order to improve their practical skills. Students use computers in the laboratory under the supervision of either a teaching assistant or an instructor. Practice on computers, which mainly used for programming courses that results of the written code observed on the screen. Practical IT based activities are used to support the understanding of theory and to improve practical skills. Simulations are widely used in order to test designs of students. In addition, cooperative learning facilities involving small student groups working together to solve a problem or complete a task are used as supplementary techniques to Lecturing. Students also use case studies to analyze particular situation or problem to find a solution that allows them to apply their knowledge to new situations. In addition, brainstorming with small groups are also used, to to determine techniques and strategies that best fit the topic of interest.

Students are given practical exercises and are expected to complete these exercises in the computer laboratories. This study forms part of the project based learning which is heavily used in the department. Students are then expected to submit their solutions to the course lecturer and markings are given for each exercise. These markings are part of the overall grade given at the end of a semester. Course projects encourage students to use techniques and tools that they learned for during the lectures. Students are expected to prepare a report and/or present their projects in front of an audience at the end of the semester.

The MOODLE learning management system, used by many universities around the globe, is also used in some of the offered courses in order to support teaching and learning. This system offers many advantages compared to the traditional methods of teaching and enables students to learn in their own time and at their own places of study. Some typical features of MOODLE used in the courses are:

- Assignment preparation and submission
- Discussion groups
- Grading
- File download
- Instant messages
- Online calendar
- Online news and announcements
- Online quiz

There is sufficient range of elective modules that enable students to develop varied skills.

In summary, the following educational methods are employed at the department depending upon the module to be delivered:

- Classical face to face lectures, lectures with discussions, tutorials, class exercises, laboratories, summer training, graduation project.
- Small group discussions, seminars, group work, homework.
- Using computers to carry out laboratory practical work (e.g. programming).
- Using distant learning technologies where appropriate.
- Provision of standard paper textbooks, electronic textbooks, computer presentations, and other electronic teaching aids.
- Case studies.
- Simulations.
- Brainstorming.
- Oral communication.

3. QUALIFICATION AWARDED

Computer Information Systems Specialist (CIS) (Bachelor's Degree / first cycle in Bologna System)

4. LEVEL OF QUALIFICATION

Qualifications Framework- European Higher Education Area (QF-EHEA): 1

5. ADMISSION REQUIREMENTS

The admissions requirements are setup in such a way that it supports the students in reaching the intended programme learning outcomes by the end of the 4-year study period at the Department of Computer Information Systems.

The admissions and entry requirements ensure that the students who are admitted to the degree programme possesses the required competences and formal training required to be able to follow the

degree programme successfully. These requirements ensure that all admitted students are treated equally.

Students admitted to the department come from three sources:

- Local students, who are citizens of the Turkish Republic of Northern Cyprus (TRNC)
- Students from Turkey, who are Turkish citizens
- Students from other countries (foreign students)

All students are admitted to the university after they complete their high school studies successfully and obtain high school graduation diplomas.

Local students must sit for the Near East University entrance examination and obtain a pass mark from this examination. Successful students are admitted to the university, but not necessarily to the Department of Computer Information Systems.

Students from Turkey must select the Near East University and the Department of Computer Information Systems as their choice, and they must obtain successful pass marks from the Turkish university entrance examinations (prepared and administered by the Higher Education Council of Turkey, YÖK). Those who obtain the required marks are admitted to the university, but not necessarily to the Department of Computer Information Systems.

Students from other countries are admitted to the university based on the results of their high school graduation diplomas.

Because the medium of instruction is in English, the level of their English is assessed by the Department of English Language. Those students who have certificates and who have already passed English Language proficiency examinations are exempt from the English Preparation School and are admitted directly to the department where they are enrolled for the first year and first semester of their studies. Those students whose levels of English writing and communication skills are below the required standards are admitted to the English Preparatory School of the university. The English Preparatory School offers concentrated teaching of the English language reading, writing, and communication skills. The duration of the preparatory school is one academic calendar. Successful students are admitted to the department at the end of their studies at the English Preparatory School.

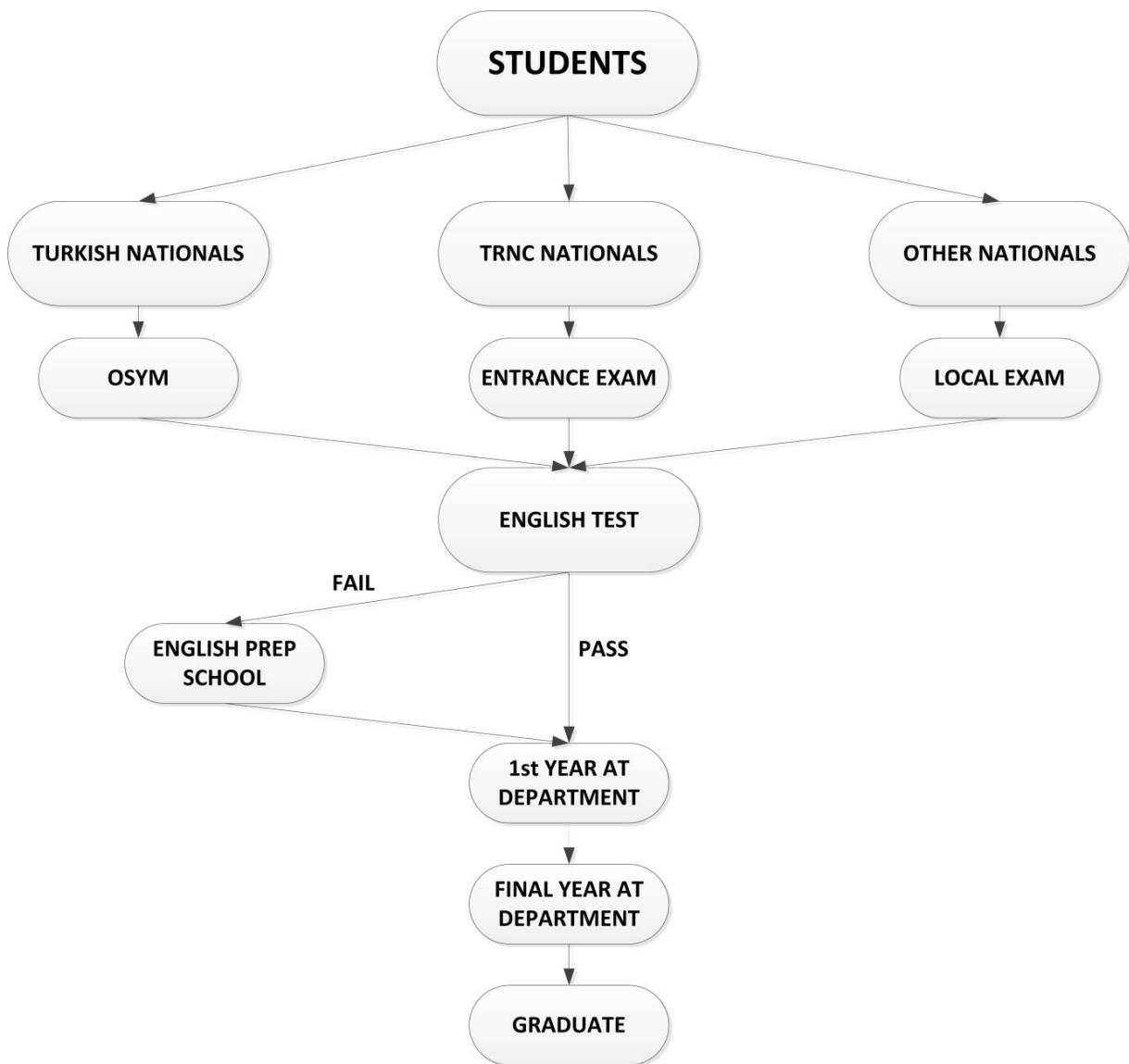
Students are required to fill an application form before they are accepted to the university. The university seeks to admit academically qualified students who desire a challenging and comprehensive education in the departments. The filled application form is available online. Students can either send their applications online or alternatively by post.

Students who transfer from other programs or universities should provide a transcript approved by their registrar's office and course descriptions from their former institution and if courses are evaluated as equivalent with respect to the total credit and content to coursework in the CIS department by the transfer committee, they are qualified as exempt from those courses. It is also possible to combine 2 courses to count for a equivalent course in the CIS department with respect to content. This web page contains regulations for admission of foreign students:

http://aday.neu.edu.tr/?page_id=1759&lang=en

- Admission Requirements for International Students at Near East University are as follows:
- Any of the following certificates or diplomas are accepted
- General Certificate of Secondary Education (GCSE) Exam results
- International General Certificate of Secondary Education (IGCSE) Exam results
- International Baccalaureate Exam results
- American College Testing (ACT) Exam results
- Scholastic Aptitude Test (SAT) Exam results
- Tawjihi Exam results (for Jordanian and Palestinian students)
- Baccalaureate Exam results (for Lebanese, Iraqi and Syrian students)
- Diploma Debirestan Exam results (for Iranian students)
- Higher Secondary Certificate Exam results (for Pakistani, Indian and Bangladesh students)
- WAEC/NECO Exam results (for Nigerian students)
- GAOKAO Exam results (for Chinese students)
- High School Diploma (for all other Overseas students)

The admission profile process chart is shown below:



6. QUALIFICATION REQUIREMENTS

The curriculum is based on achieving the intended learning outcomes at the end of the 4-year study at the department. The curriculum and detailed content of the degree program are given in Section 14. Students graduate after taking a total of 240 ECTS points. During the 4-year study, students are offered 5 modules per semester and at the time of graduation a total of 41 modules are taken by each student.

The undergraduate program is designed to meet with the job demands of graduates which can be able to work as IT managers, software analysts, designers, developers, network and security analysts. The undergraduate curriculum includes total of 44 courses with 123(240 ECTS) credits in total. 8 of

these courses are technical elective courses chosen among 11 available technical electives. 19 of them are compulsory computing courses. 2 statistics, 8 business related courses are also mandatory in the programme. Approximately 60% of the courses compose of computing (programming, software, hardware, database, network, security) and 20% are business related courses, about 20% are related to mathematics, statistics and language and history. The proportion of compulsory computing courses to technical elective courses is 70% to 30% and compulsory courses to electives is 85% to 15.

ECTS is a credit system designed to make it easier for students to move between different countries. Since they are based on the learning achievements and workload of a course, a student can transfer their ECTS credits from one university to another so they are added up to contribute to an individual's degree programme or training. ECTS helps to make learning more student-centred. It is a central tool in the [Bologna Process](#), which aims to make national systems more compatible.

ECTS also helps with the planning, delivery and evaluation of study programmes, and makes them more transparent (http://ec.europa.eu/education/ects/ects_en.htm).

7. CONVERTING US COLLEGE CREDIT HOURS (SEMESTER CREDIT HOURS-SCH) TO ECTS

ECTS is the most commonly used credit system in Europe. The major difference between the European Credit System ECTS and the US College Credit system is that the first is based on student workload and the second on contact hours. The ECTS is oriented towards the time required for a student to meet the intended study outcomes, while the U.S. system is more oriented towards the time a faculty member needs to teach.

Here is an example of conversion of credits from ECTS to Semester Credit Hours for a college or university in the U.S.: 1.67 ECTS = 1.00 US College Credit Hours

Conversion standards may vary between higher education institutions in the U.S. (<http://www.mastersportal.eu/articles/1110/what-you-need-to-know-about-academic-credit-systems-in-the-us.html>)

A student is required to have minimum pass grade from each course and obtain minimum 2.00/4.00 cumulative Grade Point Average (cumulative GPA).

The students who have successfully completed the programme should be able to be science-based, skilled and competent **Computer Information Specialists** prepared to meet the challenges of practicing Computer Information Systems in the 21st century, and **researchers** who are prepared to

conduct social and political research focused on bettering the human condition and advancing the fundamental understanding of Computer Information Systems.

8. ARRANGEMENTS FOR TRANSFER FROM ANOTHER COMPUTER INFORMATION SYSTEMS DEPARTMENT (RECOGNITION OF PRIOR LEARNING)

A student wishing a transfer from another university: the student must prove her/his English Proficiency if she/he wishes to attend the English Section. At the time of ÖSS examination the candidate's entrance score must not be less than the lowest score for admission to the Near East Computer Information Systems Department. The transcript and course content of the applicant is examined by the department and the student is then accepted to the appropriate year of the programme.

For further details please contact:

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Faculty of Economics and Administrative Sciences

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E-mail: info@neu.edu.tr

9. EXAMINATION REGULATIONS, ASSESSMENT AND GRADING

In the four years of the Computer Information Systems, students are evaluated by essay type questions, MCQ (multiple choice questions) exams, assignments and participation. The students must successfully complete two main exams: The mid-term and the final examinations for each course. If the student fails in any course, she/he is entitled to come up again for resit examination.

10. GRADING SCHEME AND GRADES

PERCENTAGE	COURSE GRADE	GRADE POINTS	
90-100	AA	4.00	(Excellent)
85-89	BA	3.50	(Excellent)
80-84	BB	3.00	(Very Good)
75-79	CB	2.50	(Very Good)
70-74	CC	2.00	(Good)
65-69	DC	1.50	(Good)
60-64	DD	1.00	(Good)
50-59	FD	0.50	(Failed)
0-49	FF	0.00	(Failed)

11. OCCUPATIONAL PROFILES OF GRADUATES

Graduates from our programme can virtually find jobs in all places where computers are used. Graduates of the department are ready to enter into the fields such as systems analysis, application programming, network management, and information systems management. Some popular working areas of our graduates are: All kinds of government offices, IT departments of private and public companies, communications and networking departments, IT consultancy, research and development, and education. Some of the most common employment opportunities for graduates can be listed as; IT managers, development managers, project managers, system analysts, IT consultants, database designers and software developers, database.

The main objectives of Computer Informations Systems undergraduate degree programme are outlined as follows:

- To acquire graduates common competencies that are essential for carrying out fundamental processes in their life-long profession and learning within societ

- To equip graduates with technical competences that are associated to the demands of the professional areas associated with their degree.
- To provide graduates in-depth specialized competencies in the areas of computer science, information systems, software engineering and information technology to solve problems in specific academic, professional or social settings., network systems and information systems security administrators.

Programme Director

Assoc. Prof. Dr. Nadire Çavuş (Chairperson)

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12. KEY LEARNING OUTCOMES

In accordance with their prospective professions, graduates must possess a series of common, technical and specialized competences closely associated with the demands of the professional areas of the BA degree. These competences reflect the combination of knowledge, skills (intellectual, practical, social, etc.) that enable individuals to perform tasks and solve problems in specific academic and professional situations. Nine educational objectives are outlined here by the description of the learning outcomes that graduates require for practising their profession. Competences are the following learning outcomes that have compliance with the EQUAINE Euro-Inf learning outcomes also:

A- COMMON COMPETENCES

1. EFFECTIVE ORAL AND WRITTEN COMMUNICATION

- To communicate with other people knowledge, procedures, results and ideas orally and in a written way.
- To participate in discussions about topics related to the activity of their profession.
- To work in a multidisciplinary group or in a multi-language environment and to communicate, orally and in a written way, knowledge, procedures, results and ideas related to the profession.

2. TEAMWORK

- To be capable to work as a team member, being just one more member or performing management tasks, with contributing to develop projects practically and responsibly.

3. INFORMATION LITERACY IN LIFELONG LEARNING

- To manage the acquisition, structuring, analysis and visualization of data and information of the field, and to value in a critical way the results of this management.
- To overcome deficiencies in the own knowledge through critical reflection and adapting oneself to new methods and technologies, and situations.

B- TECHNICAL COMPETENCES

4. UNDERSTAND & APPLY IT SKILLS

- To demonstrate knowledge and comprehension of essential facts, concepts, principles and theories related to Computer Information Systems.
- To use properly theories, procedures and tools in the professional development of the informatics engineering in all its fields (specification, design, implementation, deployment and products evaluation) demonstrating the comprehension of the adopted compromises in the design decisions.

5. ANALYZE, EVALUATE & MANAGE IT SKILLS

- To analyse, design, build and maintain applications in a robust, secure and efficient way, choosing the most adequate paradigm and programming languages.
- To evaluate and select hardware and software production platforms for executing applications and computer services.
- To plan, comprehend, deploy and manage IT projects to lead the start-up, the continuous improvement and to value the economical and social impact.

C- SPECIALIZED COMPETENCES

6. COMPUTER SCIENCE RELATED

- To have an in-depth knowledge about the fundamental principles and models and be able to apply them to interpret, select, value, model and create new concepts, theories, uses and technological developments, related to the field.
- To develop effectively and efficiently algorithms for a software to solve complex problems.

7. INFORMATION SYSTEMS RELATED

- To demonstrate comprehension and apply the principles and practices of the organization, in a way to associate technical and management components of an organization, and participate actively in the training.

- To integrate solutions of Information and Communication Technologies, and business processes to satisfy the information needs of the organizations, allowing them to achieve their objectives effectively.
- To determine the requirements of the information and communication systems of an organization, taking into account the aspects of security and compliance of the up-to-date standards.
- To participate actively in the specification, design, implementation and maintenance of the information and communication systems.

8. SOFTWARE ENGINEERING RELATED

- To develop, maintain and evaluate software systems which satisfy all user requirements, which behave reliably and efficiently, with a reasonable development and maintenance and which satisfy the rules for quality applying the theories, principles, methods and practices of Software Engineering.

9. INFORMATION TECHNOLOGY RELATED

- To define, plan and manage the installation of the ICT infrastructure of the organization.
- To design solutions which integrate hardware, software and communication technologies.
- To use methodologies centred on the user and the organization to develop, evaluate and manage applications and systems based on the information technologies which ensure the accessibility, ergonomics and usability of the systems.

13. COURSES LIST WITH NEAR EAST UNIVERSITY CREDITS AND ECTS

Please see the attached example of the diploma supplement in English which is given to all graduates of our university free of charge.

The diploma supplement is a document the purpose of which is to provide sufficient independent data to improve the international “transparency” and fair academic and professional recognition of qualifications (diplomas, degrees, certificates, etc.). It is designed to provide a description of the nature, level, context, content and the status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgments, equivalence statements or suggestions about recognition.

14. OBJECTIVES AND CONTENTS OF THE MODULES

YEAR 1

English I (course type: required; course code: ENG 101)

Course objective: Students develop essential business communication skills such as making presentations, taking part in meetings, negotiating, telephoning and using English in social situation.

Course content: Focusing on grammar and developing of all language skills. The aim of this course is to enable students follow their courses in English and also to express themselves in English.

Mathematics I (course type: required; course code: MAT 171)

Course objective: This course provides an informal, non-intimidating presentation of the mathematical principles, and techniques and to understand applications most useful for students in business, economics, and the life and social sciences.

Course content: This course is aimed at providing a comprehensive treatment of selected topics in both finite mathematics and calculus. It will make students as comfortable as possible in an environment of quantitative analysis with computers.

Introduction to Business Administration (course type: required; course code: MAN 101)

Course objective: The main objective of the course will be to explore the dynamic environment of the business organizations. In addition, we will have some other objectives including; explaining basic business and management concepts, to help students understand business systems and management functions, to discuss contemporary management practices and solution for today's complex and competitive business world. To encourage students to look at issues from the perspective of business owners.

Course content: Broad integrative course covering all functional areas of business; finance, human resources, management sciences, and information systems and marketing. In addition, relationships among business, government and society are considered..

Principles of Economics 1 (course type: required; course code: ECON 101)

Course objective: This course familiarizes students with basic economic terms and principles. Students get acquainted with economic terminology and basic economic modelling, which they will use as a base for their academic career. At this stage, this course has a crucial role in adopting students,

who chose economics as their major, to the field, and give an idea of the workings of economics to those who do not plan on undertaking further economic study.

Course content: Basic concepts of economics and mainly elementary microeconomics. Topics covered are: The economic problem, supply and demand, elasticity, marginal analysis of consumers' and firms' behavior, the theory of profit maximization, analysis of markets, pricing in competitive and non-competitive markets.

Introduction to Computer Information Systems (course type: required; course code: CIS 131)

Course objective: This course provides an overview of information systems. Topics include hardware and software fundamentals, use of software packages, effective use of networks, Internet, and other communication tools, the design of management information systems, as well as the ethical use of computers in business and society.

Course content: This course provides an overview of information systems. Topics include hardware and software fundamentals, use of software packages, effective use of networks, Internet, and other communication tools, the design of management information systems, as well as the ethical use of computers in business and society.

Atatürk İlkeleri ve İnkılap Tarihi I (course type: required; course code: ATA 101)

Course objective:

- Osmanlı İmparatorluğu tarihini anlayabilme
- Devleti kurtarmaya yönelik Modernleşme/Batılılaşma hareketlerini kavrayabilme
- Modern Türkiye'nin oluşumuna zemin hazırlayan unsurlar olarak Osmanlı reformunu benimseyebilme
- İç ve Dış etkenleriyle birlikte Osmanlı Devleti'nin Yıkılış Sürecini anlayabilme
- Mondros Ateşkes Antlaşması ve ilk işgaller karşısında Osmanlı Hükümetleri ile Mustafa Kemal Hareketi'nin tutumlarını anlayabilme

Course content: The principles of Atatürk will be discussed analytically and historically in both semesters.

Turkish as a Foreign Language I (for non-natives) (course type: required; course code: TUR 101)

Course objective: The course is designed for students who are interested in learning about other cultures and languages, and who have no previous knowledge of Turkish language. This course mainly

introduces the student to Turkish language, through the development of the basic skills: listening, speaking, reading and writing. Also included is an examination of Turkish culture through an exploration of its historical roots and its most significant social, literary and artistic trends.

Course content: The ultimate goal of the course is that students will gain awareness and appreciation of and insight into the Turkish culture.

English II (course type: required; course code: ENG 102)

Course objective: The world is becoming global, therefore countries are doing business with each other and multinational firms are becoming more and more popular. As the trade language is English, Fluent English speaking managers are needed more and more. Therefore students who are getting educated in business subjects should have good business English communicating skills.

Course content: This course aims to take students to a more advanced level of English.

Mathematics II (course type: required; course code: MAT 172)

Course objective: On successful completion of this course, all students will have developed knowledge and understanding of:

- Matrices and matrix operations
- Limits, and derivatives
- Integrals
- Bivariate functions

On successful completion of this course, all students will have developed their skills in:

- Matrix operations and Cramer's rule and Inverse matrix methods in solving systems
- Limit evaluations, and continuity check
- Finding derivatives by rules
- Locating and identifying critical points and their natures
- Applying derivatives to business problems
- Finding areas under a curve and/or between two curves applied to business problems
- Solving business problems (optimization) in two variables

On successful completion of this course, all students will have developed their appreciation of and respect for values and attitudes regarding the issues of:

- Willingness to work independently to solve problems
- Willingness to reach extra information about the topics (library and/or internet)

- Plagiarism and cheating

Course content: Limits and continuity; average rate of change and slope; derivatives, instantaneous rate of change, higher order derivatives; optimisation, concavity of inflection points; maxima and minima; revenue, cost and profit applications, anti derivatives, rules of integration, differential equations, mathematics of finance, simple and compound interest, present value, effective interest, future value, annuities.

Principle of Economics II (course type: required; course code: ECON 102)

Course objective: The objective of this course is to teach the principle of income, living, production and growth, security and marketing, unemployment, the monetary system, an introduction to a macro economic theory and the open economy.

Course content: Elementary macroeconomics, departmentation of national income, the role of government, the banking system, problems of inflation, unemployment and growth.

Principles of Management (course type: required; course code: MAN 102)

Course objective: The main objective of this course is to teach students about the science of management which will serve as the base for the learning of the art of management through practice.

Course content: Principles of management, the basics of management, theory and practice, the nature of planning, decision making, the nature and purpose of organising, basic departmentation, line/staff authority and decentralisation, human resource management and selection, motivation, leadership, and the system and process of controlling.

Introduction to programming languages and algorithms (course type: required; course code: CIS 132)

Course objective: This course introduces students the logic of programming. The course aims to give an introduction to problem solving techniques using structured programming approach. The course will provide the analytical foundations for proceeding courses that requires critical thinking in programming. Students earn required skills about the thought of programming using flowcharts and pseudo-code.

Course content: This course introduces students the logic of programming. The course aims to give an introduction to problem solving techniques using structured programming approach. The course will provide the analytical foundations for proceeding courses that requires critical thinking in

programming. Students earn required skills about the thought of programming using flowcharts and pseudo-code.

Atatürk İlkeleri ve İnkılap Tarihi II (course type: required; course code: ATA 102)

Course objective: ATA 101 Dersi'nin devamı olup; Ulusal Kurtuluş Savaşı, Lozan Anlaşması ve Yeni Türk Ulus Devleti'nin Kuruluşu, Yeni Türkiye'nin siyasal, toplumsal, kültürel dönüşüm ve modernleşmesini hedef alan Atatürk Devrimleri, Atatürkçülük ve Atatürk'ün 6 temel ilkesi, Atatürk Dönemi Türk Dış Politikası.

Course content: The principles of Atatürk will be discussed analytically and historically in both semesters.

YEAR 2

Business Communication (course type: required; course code: ENG 201)

Course objective: Students develop essential business communication skills such as reading texts, answering questions, taking part in meetings, negotiating and telephoning.

Course content: This course aims to improve the student's ability to understand and use English grammar and vocabulary in business context.

Financial Accounting (course type: required; course code: ACC 202)

Course objective: This course helps students learn the basics of financial accounting by providing a solid presentation of the root of the principles course, the accounting cycle. Financial Accounting helps students build a foundation upon which they'll continue to learn and grow in their study. Students who take financial accounting will know where the numbers come from and how to find the information they need to make important decision.

Course content: Financial accounting the basis for business decision; recording changes in financial position; measuring business income; completion of the accounting cycle; accounting for merchandising activities; the control of cash transactions; accounts receivable, and notes receivable; inventories and cost of goods sold.

Statistics I (course type: required; course code: MAT 281)

Course objective: The objective of this course is to provide students majoring in management, marketing, finance, accounting, economics, computer information systems and other fields with an introductory survey of the many applications of descriptive and inferential statistics. After taking this

course students will have skills that are needed to deal with the large volume of numerical information. First they will be critical consumers of information presented by others. Second, they will be able to reduce large amounts of information into a concise and meaningful form to enable users of statistical data to make effective interpretations, judgments, and decisions.

Course content: Frequency distributions and their graphs, measures of central tendency, measures of dispersion and skewness, basic concepts and rules of probability, probability distributions: Binomial, poisson, normal, and Chi-Square distributions, sampling concepts, sampling distributions.

Programming Language I (course type: required; course code: CIS 243)

Course objective: The objective of this course is to teach students the major elements of the C language. Topics include language syntax, data types, variables and constants, input-output operators, logical, arithmetic and string operations, selective control structures: if-then-else, switch, repetition control structures: while, do while, for loops, functions, parameter passing, arrays, pointers, strings manipulations, structures, file I/O operations, memory allocation operations.

Course content: Fundamentals of programming in C language, identifier and variables, statements and commands of C language, data types, constants, Input/Output operators, control structures, pointers and dynamical memory structures, functions and procedures, arrays, structures.

Data Structures (course type: required; course code: CIS 243)

Course objective: Stacks, Queue, circular Queue, Linked lists, Data Structure Techniques, Trees, Binary Trees, Database Structure

Course content: Stacks, queue, circular queues, linked lists, data structure techniques, trees, binary trees, database structures.

Statistics II (course type: required; course code: MAT 282)

Course objective: The objective of this course is to provide students' majority in management, marketing, finance accounting, economics, computer information systems and other fields with an introductory survey of many applications of descriptive and inferential statistics. After taking this course students will have skills that are needed to deal with large volume of numerical information. First they will be critical consumers of information presented by others. Second, they will be able to reduce large amounts of information into a concise and meaningful form to enable users of statistical data to make effective interpretations, judgments and decisions.

Course content: Summary of discrete distributions, summary of continuous distributions, descriptive statistics, point estimation, interval estimation and the control limit theory, inferences in the mean and variance of a distribution, inferences on proportions, comparing two means and two variances, simple linear regression.

Programming Language II (course type: required; course code: CIS 232)

Course objective:

- Write Delphi programs
- Use forms and controls to create state-of-the-art user interfaces
- Use Delphi database components to access databases
- Use Delphi database components for SQL
- Use Delphi database components for Paradox

Course content: Introduction to Delphi; components of Delphi projects; organization of forms and units; using the components palette in Delphi; properties of components and the available options; events and event triggering; file structure of a Delphi project; files of PAS, DFM & DPR extensions; forms with multi document interface; linking of Windows-Based applications to Delphi projects (OLE); the data access method.

Database Management Systems (course type: required; course code: CIS 246)

Course objective:

- Needs of business functions for database management,
- Components of modern relational database management systems,
- Components of modern relational database information systems,
- Development of new relational database applications,
- Modelling the logical design of new relational database applications,
- Modelling the physical design of new relational database applications,
- Implementation of new relational database application systems,
- Fundamentals of using a typical modern DBMS to build relational database application systems.

Course content: The database, the database management system, components of DBMS environment, database design, roles of the database environment, data and database administrator, database designers, application programmers, end-users, the history of DBMS, data independence,

database language, function of DBMS, components of a DBMS, relational model, relational data structure, database relations, properties of relational databases, relational keys, representing relational database.

Operating Systems (course type: required; course code: CIS 202)

Course objective:

- Understanding how an OS works
- Relationship between hardware and OS
- To have information about different kind of OS and their working principles

Course content: Introduction to operating system concepts; classification and structure of operating systems; single-user (DOS) and multi-user (UNIX) character oriented operating systems; graphical multi- user operating systems; multi programming and multi-environment, virtual memory and purging; device management, I/O system and I/O processing; dead-locks; system software: loaders, assemblers; Network applications.

YEAR 3

Principles of Marketing (course type: required; course code: MARK 303)

Course objective:

1. Describe the nature and the application of marketing ideas and concepts;
2. Apply a customer focus in a range of situations;
3. Specify the requirements for effective marketing;
4. Outline the marketing management process and describe the a range of techniques used to implement marketing strategies;
5. Demonstrate the importance of marketing ideas and techniques in a range of organisations and society in general.

Course content: To provide fundamental concepts and to introduce related business activities within a systems perspective, supported with managerial and functional approaches for planning, pricing, promoting and distributing, satisfying products to target markets in order to achieve organisational objectives.

System Analysis and Methods (course type: required; course code: CIS 331)

Course objective: This course provides students with theoretical and practical skills related to system design and analysis process with an emphasis on object oriented approach. An overview of systems

development projects and approaches are followed by thorough coverage of systems analysis and design issues, equipping the students with the ability to perform OOA using the OMG Unified Modeling Language (UML). The topics covered are project management and planning, requirements gathering, documentation, analysis and modeling using tools such as structure charts, PDL, Flowcharts, Waterfall models and Agile modelling, input/output/user interface design, team organisations, system integration and architecture, system interfaces, control and security.

Course content: This course provides students with theoretical and practical skills related to system design and analysis process with an emphasis on object oriented approach. An overview of systems development projects and approaches are followed by thorough coverage of systems analysis and design issues equipping the students with the ability to perform OOA using the OMG Unified Modeling Language (UML). The topics covered are project management and planning, requirements gathering, documentation, analysis and modeling such Structured charts, PDL, Flowcharts, Waterfall models and Agile modelling), input/output/user interface design, team organizations, system integration and architecture, system interfaces, control and security.

Software Engineering (course type: required; course code: CIS 363)

Course objective: The aim of this course is to give students an introduction to the principles and practice of analysis, design and in O.O.D implementation of software engineering principles. Through experience of building a significant software system in a team, their experience and understanding of the problems that arise in building complex software systems. They will develop the analytical, critical and modelling skills that are required by a successful software engineering. The students will also be familiarized with the UML and Visual Paradigm (tool) to model software development and Agile software development methodology. Additionally, they will learn the principles of software life cycle and software documentation.

Course content: The aim of this course is to give students an introduction to the principles and practice of analysis, design and in O.O.D implementation of software engineering principles. Through experience of building a significant software system in a team, their experience and understanding of the problems that arise in building complex software systems. They will develop the analytical, critical and modelling skills that are required by a successful software engineering. The students will also be familiarized with the UML and Visual Paradigm (tool) to model software development and Agile software development methodology. Additionally, they will learn the principles of software life cycle and software documentation.

Internet Programming (course type: required; course code: CIS 340)

Course objective: Basic understanding of Internet Architecture, the client/server nature of the World Wide Web, and familiarity with HTML is essential.

Course content: Internet concepts; HTML programming principles; HTML commands; writing and testing HTML code; embedding pictures and graphics into HTML documents; using FrontPage to develop internet applications; Graphical User Interface design principles; uploading and testing internet applications.

Database Programming I (course type: required; course code: CIS 386)

Course objective:

- Designed database concepts provide
- Relational database model
- SQL normalization and SQL methodology
- DBMS functions and Administration
- Other database management approaches(client/server)
- Object-oriented databases
- Data warehouses and XML

Course content: SELECT, FROM, WHERE and ORDER BY. Aggregate, date and string functions. GROUP BY and HAVING. Table joins: Cartesian, inner, outer and UNION joins. Indexes. Subqueries: EXISTS, IN. DML: INSERT, UPDATE and DELETE statements. Transactions with commit and rollback. DDL: Creating database objects (Tables, Views, Indexes, etc.), column data types. Data integrity with constraints. Concurrency and locks.

Operations Management and Research (course type: required; course code: MAN 308)

Course objective: Since the advent of the industrial revolution, the world has seen a remarkable growth in size and complexity of organizations. As the complexity and specialization in an organization increase, it becomes more and more difficult to allocate the available resources to the various activities in a way that is most effective for the organization as a whole. These kinds of problems and the need to find a better way to solve them is the objective of operations research.

Course content: The fundamentals of operational research and modelling; the development, application and computation of the basic operations research techniques; the topics covered are:

Application of scientific methodology to business problems and mathematical modelling, linear programming, scientific approach to decision making.

E-Business Systems (course type: required; course code: CIS 348)

Course objective:

Students will learn:

- Online technologies and trends and their influence on the electronic commerce marketplace.
- Various revenue models market on the Web.
- Online auctions and various legal and ethical issues.
- Students will learn about important security issues,(spam and phishing).
- Organized crime and terrorism, identity theft.
- Online payment fraud and plan for electronic commerce.

Course content: This course covers emerging online technologies and trends and their influence on the electronic commerce marketplace. Students will learn various revenue models and how to market on the Web. Next, the course covers online auctions and various legal and ethical issues. Students will learn about important security issues, such as spam and phishing, their role in organized crime and terrorism, identity theft, and online payment fraud. Finally, students learn how to plan for electronic commerce.

Programming Language III (course type: required; course code: CIS 352)

Course objective:

- Write Visual Basic programs
- Use forms and controls to create state-of-the-art user interfaces
- Use Visual Basic database components to access databases
- Use Visual Basic database components for SQL

Course content: Introduction to Visual Basic; components of Visual Basic projects: labels, text boxes, command buttons, list boxes, combo boxes, timers, image boxes, picture boxes; organization of forms and units; properties of components and the available options; events and event triggering; file structure of a Visual Basic project; small Visual Basic application programs.

Ethical and Social Issues in Information Systems (course type: required; course code: CIS 342)

Course objective: Upon successful completion of the course the student should have to demonstrate knowledge of current models of information and computer ethics, apply ethical theories to interpret

personal and group behavior when using a variety of information technology tools, evaluate the nature of ethical choices made by self and others when serving various roles that expose social and multicultural differences, construct written arguments in a variety of formats on the evolving nature of ethical norms relating to new technologies.

Course content: This course will enable the student to evaluate ethical issues that Information Technology professionals face in a corporate setting. The student will examine the classical normative ethical theories based on notions of duties, rights, consequences and virtue based ethics as well as the contemporary codes of conduct established by professional organizations. The student will explore, analyse, and critique case studies in order to develop skills in ethical thought and written communication

Object-Oriented Programming Language I (course type: required; course code: CIS 356)

Course objective: The aim of this module is to develop object-oriented approach to make students comfortable for designing and implementing object oriented software. This course is for students who have a basic understanding of object oriented programming. The course focuses on the object-oriented concepts developed in Java programming

Course content: Primitive data types, expressions and arithmetic operators, Input and Output, the if statement, counting, sentinel-controlled and result-controlled loops, objects and object references, class structure, method parameters, encapsulation and visibility modifiers, overloading, for statement and arrays, inheritance, abstract classes and polymorphism.

YEAR 4

Human Resource Management (course type: required; course code: CIS 468)

Course objective:

- Gain an understanding of how types, classes, and objects are related
- Write statements that call methods and to write their own class methods
- Describe how to declare and perform compile-time initialization of array elements
- Understand debugging and exception handling techniques
- Explain how ADO.NET classes are used to retrieve and update data in database
- Explore how the design of Web-based applications differs from Windows applications

Course content:

The course aims at showing the importance of human resource management (The management of people) and its link with productivity, quality of work life, and profits in today's highly competitive

world. Human resource management activities examined include job analysis, human resource planning, recruitment, selection, orientation, training and development, performance appraisal, career development, compensation management, labor relations, and employee health and safety.

Object Oriented Programming Language II (course type: must; course code: CIS 468)

Course objective:

- Gain an understanding of how types, classes, and objects are related
- Write statements that call methods and to write their own class methods
- Describe how to declare and perform compile-time initialization of array elements
- Understand debugging and exception handling techniques
- Explain how ADO.NET classes are used to retrieve and update data in database
- Explore how the design of Web-based applications differs from Windows applications

Course content: Introduction to Computing and Programming, Data Types and Expressions, Methods and Behaviours, Creating Your Own Classes, Making Decisions, Repeating Instructions, Arrays, Advanced Collections, Introduction to Windows Programming, Programming Based on Events, Advanced Object-Oriented Programming Features, Debugging and Handling Exceptions, Working with Files, Working with Databases, Web-Based Applications.

Graduation Project Proposal (course type: must; course code: CIS 403)

Course objective: This is the first phase of graduation project course. Graduation topics are identified. Students can either select topics from offered list or they can individually find their topics and submit it to the graduation project committee for approval. When approved, students carry out literature search and work on the theoretical aspects of the project. The students are required to work in teams and the chair person assigns a project supervisor from the department which is relevant to their topics. According to these specifications the systems analysis, design and development processes are covered. A project proposal report is developed and presented to the committee.

Course content: This is the first phase of graduation project course. Graduation topics are identified. Students can either select topics from offered list or they can individually find their topics and submit it to the graduation project committee for approval. When approved, students carry out literature search and work on the theoretical aspects of the project. The students are required to work in teams and the chair person assigns a project supervisor from the department which is relevant to their topics. According to these specifications the systems analysis, design and development processes are covered. A project proposal report is developed and presented to the committee.

Summer Training (course type: must; course code: CIS 406)

Course objective: As fulfillment of the degree programme, students should work for duration of 45 work days in Information Technology or Information Systems related companies. Following 6th academic semester, students are able to work in the summer training internship. At the end of the word period, student submits a written report. and granted as PASS grade if all the requirements are fulfilled.

Course content: As fulfillment of the degree programme, students should work for duration of 45 work days in Information Technology or Information Systems related companies. Following 6th academic semester, students are able to work in the summer training internship. At the end of the word period, student submits a written report. and granted as PASS grade if all the requirements are fulfilled. Students are expected to apply their theoretical knowledge, which they acquired during their Bachelor level studies, in a real life professional environment. Summer training can be performed at any private or governmental institution which is involved in any of the following areas: manufacturing, assembly, measurement, control, research and development, software development, technical support, plant management. During the training, the students encounter with the professionals and the real life tasks, so that they have a better chance to prepare themselves for the industries' needs and decide on their exact field of professional interests. At the end of the 45 days of training, which is performed after the third year of the bachelor studies, the students write their summer training reports which summarize their internship experience. The internship period of a student is then judged by the committee evaluation of his/her summer training report.

Graduation Project (course type: must; course code: CIS 400)

Course objective: This is the second phase of graduation project course. Students are required to develop Depending upon the type of project students are required to develop a software, mobile application, web development, information systems security etc... Students should implement their projects and present it to the graduation project committee. The final project should consist of functional software/hardware, preparing user and system manuals and a report of the procedures, performance checks, and testing results.

Course content: This is the second phase of graduation project course. Depending upon the type of project students are required to develop a software, mobile application, web development, information systems security etc... Students should implement their projects and present it to the graduation project committee. The final project should consist of functional software/hardware, preparing user and system manuals and a report of the procedures, performance checks, and testing results.

Management Information Systems (course type: must; course code: CIS 411)

Course objective: This course gives general knowledge for about management information systems and their subsystems. Management information systems are strategy and action. In this course, students take discussed strategy side. So after define of management information systems and subsystems, students discuss the organization types, system and models, and decision making.

Course content: Define the Management Information System (MIS), and its sub systems (transaction processing systems, information reporting systems, decision support systems, and office automation systems). Sometimes the course will focus on organization, model and decision making.

LIST OF ELECTIVES

Animation Technologies (course type: elective; course code: CIS 242)

Course objective:

- Create Photoshop graphics and Flash animations
- Coloring methods and animation editing
- Use Flash animations and Photoshop graphics for web pages

Course content: Computer graphics and applications course introduces students to the use of computer technology in the process of graphic design. Students will learn about basic visual communication skills using a variety of industry standard graphic programs creating animations using software packages.

Information and Communication Technologies (course type: elective; course code: CIS 250)

Course objective: The main objective of this course is to teach the principles and foundational logic of Information and Communication Technologies and how to use of ICT for personal and educational purposes.

Course content: The main objective of this course is to teach the principles and foundational logic of Information and Communication Technologies and how to use of ICT for personal and educational purposes.

Development of Mobile Applications (course type: elective; course code: CIS 460)

Course objective:

- Understand the unique aspects of mobile application design.
- Work in resource sensitive and resolution variant environments.

- Develop applications with location awareness and hardware sensors.
- Understand the use of a mobile device API.
- Develop applications in a client-server environment.

Course content: Students learn to write both web apps and native apps for Android using Eclipse and the Android SDK, to write native apps for iPhones, iPod Touches, and iPads using Xcode and the iOS SDK, and to write web apps for both platforms. The course also touches on Windows 8 application programming, so as to provide students with a stepping stone for application development in the mobile operating system of their choice. Additional topics covered include application deployment and availability on the corresponding app stores and markets, application security, efficient power management, and mobile device security.

Web Development (PHP With MySQL) (course type: elective; course code: CIS 488)

Course objective: The objective of this course is to provide students with a sound basis in the development of Web Application that meet the recommendations of the WWW Consortium. The student will not only be able to provide optimum solutions to software problems using the PHP and MySQL technology but will also be equipped to apply this to other related technologies.

Course content: This course follows a step-by-step introduction to the topics concerning PHP programming with MySQL. Topics include introduction to Web development and PHP, working with data types and operators, building functions and control structures, manipulating MySQL databases with PHP, managing state information.

Database Programming II (course type: elective; course code: CIS 486)

Course objective: The objective of this course is to provide students with a sound basis in PL/SQL programming and in particular the type of features available in a relational database. Equipped with this awareness and knowledge the student will be able to provide optimum solutions to software problems using not only the Oracle RDBMS but also any other relational database such as SQL*Server, MySQL and DB2.

Course content: DDL: Creating altering and dropping database objects (Tables, Views, Indexes, etc.). Oracle data types, meta data and its uses, Common Oracle aggregate, string and date functions, application of data integrity: domain, entity and referential. Constraints, SQL Plus settings and spooling, PL/SQL introduction: blocks, variables and their scope, cursor declarations, SELECT..Into, loops and conditional statements. Transaction: COMMIT and ROLLBACK. Procedures, Functions

and Packages: IN, OUT parameters. Cursors: basic LOOP and the for CURSOR LOOP. Exception handling. Table triggers. Dynamic SQL.

Computer Networks (course type: elective; course code: CIS 416)

Course objective: To understand (a good slice of) the state -of-the-art in network architecture, protocols, and networked systems, and to understand how to conduct networking research and develop innovative ideas.

Course content: Principles of standards and protocols, network topologies, switching techniques, media access techniques, type of networks (LAN, MAN, WAN), performance management of networks, network design, distributed systems and applications, introduction to remote procedure calling, client/server computing, TCP/IP protocols, internet security.

Information Systems Security (course type: elective; course code: CIS 420)

Course objective: To provide an understanding of principal concepts, major issues, technologies, and basic approaches in information security. To provide concept-level hands-on experience in specific topic area. To provide the ability to examine and analyze real-life security cases.

Course content: The aim of the course is to introduce students to the very important topic of security and risk management in the field of information technology. In this course students learn critical security principles that they can apply to plan and develop secure and risk free systems. The course includes both theory and practice and students learn about the software, hardware, communications, applications, and the policies related to the development of secure IT based systems.

Software Testing (course type: elective; course code: CIS 421)

Course objective: This course is designed to enable a clear understanding and knowledge of the foundations, techniques, and tools in the area of software testing and its practice in the industry. The course will prepare students to be leaders in software testing. Whether you are a developer or a tester, you must test software. This course is a unique opportunity to learn strengths and weaknesses of a variety of software testing techniques. Applications of testing techniques in health care industry (e.g. pacemaker), nuclear industry (e.g. plant control), aerospace industry (e.g. Mars Polar Lander), security (e.g. smart card), automobile industry (e.g. automotive control systems), and others will be considered .

Course content: This course is designed to enable a clear understanding and knowledge of the foundations, techniques, and tools in the area of software testing and its practice in the industry. The

course will prepare students to be leaders in software testing. Whether you are a developer or a tester, you must test software. This course is a unique opportunity to learn strengths and weaknesses of a variety of software testing techniques. Applications of testing techniques in health care industry (e.g. pacemaker), nuclear industry (e.g. plant control), aerospace industry (e.g. Mars Polar Lander), security (e.g. smart card), automobile industry (e.g. automotive control systems), and others will be considered.

Information Systems For Communication (course type: elective; course code: CIS 430)

Course objective: The objective of this course is to teach the basic principles of communication to students. The course is of introductory nature. Students learn about the various communication technologies and how to write programs to communicate between two computers.

Course content: The aim of this course is to teach students the skills of communications using the information systems, and how communication is used in global organizations in the world. The key elements of the course are information systems, software and hardware, data communication technologies, and people. The course teaches how all these components can be put together and managed to create competitive advantage to an organization. Students learn how information systems are used in organizations and how the quality, speed, and reliability can be improved by using these tools correctly. In addition, the course provides an introduction to the principles of technology acquisition and the use of various application software in modern organizations in order to improve the communication skills and the overall organizational efficiency.

E-Learning Systems (course type: elective; course code: CIS 435)

Course objective: The main objective of this course is to teach the principles of advanced e-learning systems and how to setup such systems for practical applications.

Course content: This course aims to combine the networked information technologies and organizational strategy. Students learn to implement a rich variety of business models in the national and global contexts with the aim of connecting individuals and businesses together. In addition, students learn e-business strategies and the development of applications for e-businesses.

IT Project Management (course type: elective; course code: CIS 450)

Course objective:

- Understand and articulate the importance of Project Management in any business project
- Clearly define project objectives

- Create a project Work Breakdown Structure
- Develop a manageable project schedule
- Understand scope creep and change control
- Use tools and techniques to manage a project during execution

Course content: This course aims to understand and articulate the importance of Project Management in any business project, clearly define project objectives, create a project work Breakdown Structure, develop a manageable project schedule, understand scope creep and change control.

15. CURRICULUM/COURSE CONTENT

NEAR EAST UNIVERSITY FACULTY OF ECONOMICS AND ADMINSTRATIVE DEPARTMENT OF SCIENCES COMPUTER INFORMATION SYSTEMS UNDERGRADUATE CURRICULUM											
SEMESTER I						SEMESTER II					
CODE	COURSE NAME	E	T	P	C	CODE	COURSE NAME	E	T	P	C
ENG 101	English	4	3	0	3	ENG 102	English II	4	3	0	3
MAT 171	Mathematics I	5	3	0	3	MAT 172	Mathematics II	5	3	0	3
MAN 101	Introduction to Business	6	3	0	3	ECON 102	Principles of Economics II	6	3	0	3
ECON 101	Principles of Economics I	6	3	0	3	MAN 102	Principles of Management	6	3	0	3
CIS 131	Intro. to Computer Information Systems	7	2	1	3	CIS 132	Intro. to Algorithm & Programming	7	2	1	3
*ATA 101	Principles of Atatürk 1	2	3	0	0	*ATA 102	Principles of Atatürk II	2	3	0	0
		30	14	1	15			30	14	1	15
SEMESTER III						SEMESTER IV					
CODE	COURSE NAME	E	T	P	C	CODE	COURSE NAME	E	T	P	C
ENG 201	Business Communication	4	3	0	3	MAT 282	Statistics II	6	3	0	3
ACC 202	Financial Accounting I	6	3	0	3	CIS 232	Programming Language II	7	2	1	3
MAT 281	Statistics I	6	3	0	3	CIS 246	Database Management	7	2	1	3
CIS 205	Programming Language I	7	2	1	3	CIS 202	Operating Systems	6	2	1	3
CIS 243	Data Structures	7	2	1	3	Elective	Technical Elective	4	2	1	3
		30	13	2	15			30	11	4	15
SEMESTER V						SEMESTER VI					
CODE	COURSE NAME	E	T	P	C	CODE	COURSE NAME	E	T	P	C
MARK 303	Principles of Marketing	6	3	0	3	MAN 308	Operations Management & Research	5	3	0	3
CIS 331	Systems Analysis & Meth.	6	3	0	3	CIS 348	E-Business Systems	6	3	0	3
CIS 363	Software Engineering	6	2	1	3	CIS 352	Programming Lang. III	7	2	1	3
CIS 340	Internet Programming	6	2	1	3	CIS 342	Ethical & Social Issues in Information Systems	5	2	1	3
CIS 386	Database Programming	6	2	1	3	CIS 356	Object Oriented Programming Lang. I	7	2	1	3
		30	12	3	15			30	12	3	15
SEMESTER VII						SEMESTER VIII					
CODE	COURSE NAME	E	T	P	C	CODE	COURSE NAME	E	T	P	C
MAN 404	Human Resource Mang.	5	3	0	3	CIS 400	Graduation Project	8	2	1	3
CIS 468	Object Ori. Prog.Lang. II	7	2	1	3	CIS 411	Mang. Info. Systems	6	3	0	3
CIS 403	Grad. Project Proposal	3	2	1	0	Elective	Technical Elective	4	2	1	3
Elective	Technical Elective	4	2	1	3	Elective	Technical Elective	4	2	1	3
Elective	Technical Elective	4	2	1	3	Elective	Technical Elective	4	2	1	3
Elective	Technical Elective	4	2	1	3	Elective	Technical Elective	4	2	1	3
CIS 406	Summer Training	3	0	0	0						
		30	13	5	15			30	13	5	18

Theoric : 102 , Practical :24, Total Credits : 123, Total ECTS Credits :240

TECHNICAL ELECTIVE COURSES		E	T	P	C
CIS 242	Animation Technologies	4	2	1	3
CIS 250	Information & Communication Technologies	4	2	1	3
CIS 416	Computer Networks	4	2	1	3
CIS 420	Information Systems Security	4	2	1	3
CIS 421	Software Testing	4	2	1	3
CIS 430	Information Systems for Communication	4	2	1	3
CIS 435	E-Learning Systems	4	2	1	3
CIS 450	IT Project Management	4	2	1	3
CIS 460	Mobile Application Development	4	2	1	3
CIS 486	Database Programming II	4	2	1	3
CIS 488	Web Development (PHP, MySQL)	4	2	1	3

*Foreign students should take TUR 101 (Turkish as a Foreign Language) I instead of ATA 101 (Principles of Atatürk 1) and TUR 102 (Turkish as a Foreign Language II) instead of ATA 102 (Principles of Atatürk II)

16. DIPLOMA SUPPLEMENT MODEL

	NEAR EAST UNIVERSITY Diploma Supplement	Diploma No:33976
	Near East Boulevard, Near East University PK:3310 Lefkoşa / KKTC Mersin 10-Turkey Tel:+90 (392) 675 10 00 (3102) Faks:+90 (392) 675 10 51 info@neu.edu.tr www.neu.edu.tr	Diploma Date:17.06.2016

This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

1 INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

- 1.1 Family name(s) : Opara
1.2 Given name(s) : Chima Desmond
1.3 Date and place of birth : 28.12.1992, Mangu
1.4 Student identification number or code : 20121186

2 INFORMATION IDENTIFYING THE QUALIFICATION

- 2.1. Name of the qualification : Bachelor of Science (B.Sc.)
Title conferred : B.Sc.
2.2. Main field(s) of study for qualification : Computer Information Systems
2.3. Name and status of awarding institution : Near East University, Private University
2.4. Name and type of institution administering studies : Same as 2.3
2.5. Language(s) of instruction/examinations : English

3 INFORMATION ON THE LEVEL OF THE QUALIFICATION

- 3.1 Level of qualification : First Cycle (Bachelor's Degree).
3.2 Official length of programme : 4 years (excluding one year English Preparatory School), 2 semesters per year, 16 weeks per semester, 120 credits (240 ECTS) in total.
3.3 Access requirements(s) : Admission of Turkish nationalities to higher education is based on a nation-wide Student Selection Examination (ÖSS) administered by the Higher Education Council of Turkey (YÖK.) Admission of Turkish Cypriots is based on the Near East University Entrance and Placement Exam for Turkish Cypriots. Admission of Foreign students is based on their high school credentials. Certificate of English Proficiency is also required.

4 INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1 Mode of study :Full-time

4.2 Programme requirements : A student is required to have a minimum CGPA of 2.00/4.00 and no failing grades.

Objectives: Computer Information Systems degree program aims to teach wide range of IT and IS skills which are essential to anyone interested in the design and implementation of IT and IS solutions. The program has been designed to give students both a theoretical and a practical understanding of the fundamental issues related to IT and their use in business life. The program aims to teach database design and implementation, computer programming, systems analysis and design, and e-business systems.

4.3 Programme details and the individual grades/marks/credits obtained:

Course Code	Course Title	Course Category	ECTS	Credits	Grade
I. Semester					
ENG 101	English I	Required	5	3	BA
MAT 171	Mathematics I	Required	6	3	CC
CIS 131	Intro. to Computer Inf. Sys.	Required	7	3	BB
MAN 101	Introduction to Business	Required	6	3	CC
ECON 101	Principles of Economics I	Required	6	3	AA
II. Semester					
ENG 102	English II	Required	5	3	BA
MAT 172	Mathematics II	Required	6	3	DD
CIS 132	Intro. to Algorithm & Prog.	Required	7	3	CB
MAN 102	Principles of Management	Required	6	3	BA
ECON 102	Principles of Economics II	Required	6	3	DC
III. Semester					
ENG 201	Business Communication	Required	4	3	AA
MAT 281	Statistics I	Required	6	3	AA
ACC 202	Financial Accounting I	Required	6	3	DD
CIS 243	Data Structures	Required	7	3	AA
CIS 205	Programming Language I	Required	7	3	CC
IV. Semester					
CIS 246	Database Management	Required	7	3	CB
MAT 282	Statistics II	Required	6	3	CB
CIS 232	Programming Language II	Required	7	3	CC
CIS 402	Operating Systems	Required	6	3	AA
CIS 242	Animation Techniques	Elective	4	3	DC
V. Semester					
CIS 340	Internet Programming	Required	6	3	AA
CIS 363	Software Engineering	Required	6	3	AA
CIS 386	Database Programming I	Required	6	3	BA
CIS 331	System Analysis Method	Required	6	3	BB
MARK 303	Principles of Marketing	Required	6	3	CB
VI. Semester					
CIS 356	Object Oriented Prog. Lang. I	Required	7	3	AA
CIS 352	Programming Language III	Required	7	3	BB
MAN 308	Operations Mgmt. & Research	Required	5	3	CB
CIS 348	E-Business Systems	Required	6	3	BA
CIS 342	Ethical & Social Issues in Information Sys.	Required	5	3	AA
VII Semester					
CIS 460	Mobile Application Development	Elective	4	3	AA
CIS 470	Hardware & Software Verification	Elective	4	3	AA
CIS 468	Programming Language IV	Required	7	3	BA
MAN 404	Human Resource Management	Required	5	3	BB
CIS 486	Database Programming II	Elective	4	3	CC
CIS 403	Graduation Project Proposal	Required	3	0	S
CIS 406	Summer Training	Required	3	0	S
VIII. Semester					
CIS 201	Multimedia Systems	Elective	4	3	AA
CIS 400	Graduation Project	Required	8	3	AA
CIS 416	Computer Networks	Elective	4	3	BA
CIS 420	Information Systems Security	Elective	4	3	AA
CIS 421	Software Testing	Elective	4	3	CB
CIS 411	Management Information System I	Required	6	3	AA

Total Credits:123

Total ECTS Credits: 240

4.4 Grading scheme and, if available, grade distribution guidance:

A student is granted one of the letter grades below for each course he/she has attended, according the relative success degree of students taking the course by using the distribution of the final raw success grades. Passing grades range from AA to DD; FD and FF are failing grades.

Percentage	Course Grade	Coefficient
90-100	AA	4.00
85-89	BA	3.50
80-84	BB	3.00
75-79	CB	2.50
70-74	CC	2.00
65-69	DC	1.50
60-64	DD	1.00
50-59	FD	0.50
49 and below	FF	0.00

I-Incomplete S-Satisfactory U-Unsatisfactory P-In Progress EX-Exempt W-Withdrawn

4.5 Overall classification of the qualification : CGPA:3.09/4.00

CGPA between 2.00-2.99 Satisfactory; CGPA between 3.00-3.49 Honour; CGPA between 3.50-4.00 High Honour

5 INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study : May apply to second cycle programmes.

5.2 Professional status (if applicable) : The degree enables the holder to exercise the profession.

6 ADDITIONAL INFORMATION

6.1 Additional information:

Faculty of Economics and Administrative Sciences web page: <https://neu.edu.tr/academic/faculties/faculty-of-economics-and-administrative-sciences/>

Department of Computer Information Systems web page: <https://neu.edu.tr/academic/faculties/faculty-of-economics-and-administrative-sciences/departments/departments-of-computer-information-systems/>

6.2 Further information sources:

University web site: www.neu.edu.tr

The Council of Higher Education of Turkey web site: www.yok.gov.tr

Higher Education Planning Evaluation, Accreditation and Coordination Council (YÖDAK) www.ncyodak.eu/index.html

7 CERTIFICATION OF THE SUPPLEMENT

7.1 Date : 20.06.2016

7.2 Name and Signature : Ümit Serdaroğlu

7.3 Capacity : General Director of Student Affairs

7.4 Official stamp or seal :



8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

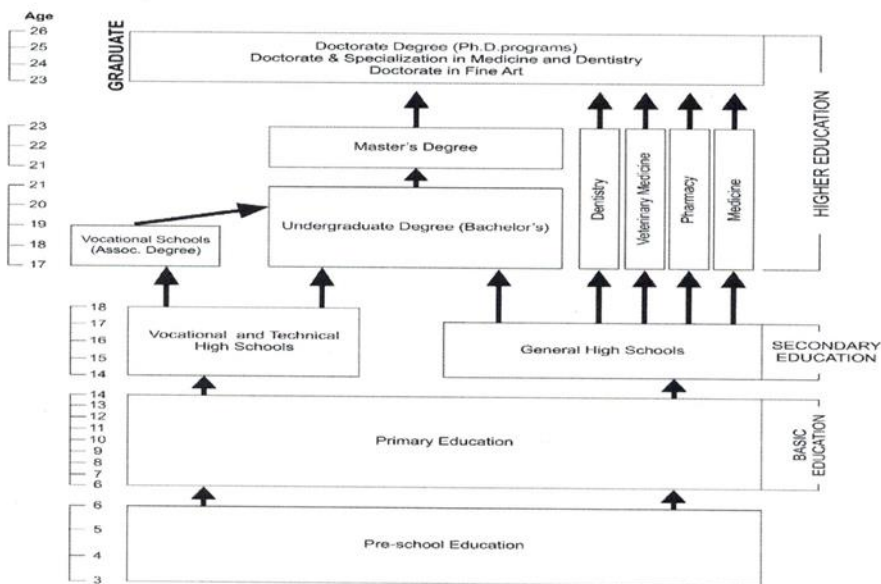
The basic structure of the North Cyprus Education System consists of four main stages as pre-school education, primary education, secondary education and higher education.

Pre-school education consists of non-compulsory programs whereas primary education is a compulsory 8 year program for all children beginning from the age of 6. The secondary education system includes "General High Schools" and "Vocational and Technical High Schools".

The Higher Education System in North Cyprus is regulated by the Higher Education Planning, Evaluation, Accreditation and Coordination Council (Yüksek Öğretim Planlama, Denetleme, Akreditasyon ve Koordinasyon Kurulu- YÖDAK). Established in 1988, the Council regulates the activities of higher education institutions with respect to research, governing, planning and organization. The higher education institutions are established within the

framework of the Higher Education Law. All programs of higher education should be accredited by YÖDAK. Higher education in North Cyprus comprises all post secondary higher education programmes, consisting of short, first, second, and third cycle degrees in terms of terminology of the Bologna Process. The structure of North Cyprus higher education degrees is based on a two-tier system, except for dentistry, pharmacy, medicine and veterinary medicine programmes which have a one-tier system. The duration of these one-tier programmes is five years except for medicine which lasts six years. The qualifications in these one-tier programmes are equivalent to the first cycle (bachelor degree) plus secondary cycle (master degree) degree. Undergraduate level of study consists of short cycle (associate degree) - (önlisansderecesi) and first cycle (bachelor degree) - (lisansderecesi) degrees which are awarded after the successful completion of full-time two-year and four-year study programmes, respectively. Graduate level of study consists of second cycle (master degree) – (yükseklisansderecesi) and third cycle (doctorate) (doktoraderecesi) degree programmes. Second cycle is divided into two sub-types named as master without thesis and master with thesis. Master programmes without thesis consists of courses and semester project. The master programmes with a thesis consist of courses, a seminar, and a thesis. Third cycle (doctorate) degree programmes consist of completion of courses, passing a qualifying examination and a doctoral thesis. Specializations in dentistry, accepted as equivalent to third cycle programmes are carried out within the faculties of dentistry. Specialization in medicine, accepted as equivalent to third cycle programmes are carried out within the faculties of medicine, and university hospitals and training hospitals operated by the Ministry of Health. Universities consist of graduate schools (institutes) offering second cycle (master degree) and third cycle (doctorate) degree programmes, faculties offering first cycle (bachelor degree) programmes, four-year higher schools offering first cycle (bachelor degree) degree programmes with a vocational emphasis and two-year vocational schools offering short cycle (associate degree) degree programmes of strictly vocational nature. Second cycle degree holders may apply to third cycle programmes if their performance at the first cycle degree level is exceptionally high and their national central Graduate Education Entrance Examination (ALES) score is also high and their application is approved. The doctoral degree is conferred subject to at least one publication in a cited and refereed journal.

GENERAL STRUCTURE OF THE NORTH CYPRUS EDUCATION SYSTEM



17. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

The basic structure of the North Cyprus Education System consists of four main stages as pre-school education, primary education, secondary education and higher education.

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The Higher Education System in North Cyprus is regulated by the Higher Education Planning, Evaluation, Accreditation and Coordination Council (Yükseköğretim Planlama, Denetleme, Akreditasyon ve Koordinasyon Kurulu – YÖDAK). Established in 1988, the Council regulates the activities of higher education institutions with respect to research, governing, planning and organization. The higher education institutions are established within the framework of the Higher Education Law. All programs of higher education should be accredited by YÖDAK.

Higher education in North Cyprus comprises all post-secondary higher education programmes, consisting of short, first, second, and third cycle degrees in terms of terminology of the Bologna Process. The structure of North Cyprus higher education degrees is based on a two-tier system, except for dentistry, pharmacy, medicine and veterinary medicine programmes which have a one-tier system. The duration of these one-tier programmes is five years except for medicine which lasts six years. The qualifications in these one-tier programmes are equivalent to the first cycle (bachelor degree) plus secondary cycle (master degree) degree. Undergraduate level of study consists of short cycle (associate degree) - (önlisans derecesi) and first cycle (bachelor degree) - (lisans derecesi) degrees which are awarded after the successful completion of full-time two-year and four-year study programmes, respectively.

Graduate level of study consists of second cycle (master degree) – (yüksek lisans derecesi) and third cycle (doctorate) – (doktora derecesi) degree programmes. Second cycle is divided into two sub-types named as master without thesis and master with thesis. Master programmes without thesis consists of courses and semester project. The master programmes with a thesis consist of courses, a seminar, and a thesis. Third cycle (doctorate) degree programmes consist of completion of courses, passing a qualifying examination and a doctoral thesis. Specializations in dentistry, accepted as equivalent to third cycle programmes are carried out within the faculties of dentistry. Specialization in medicine, accepted as equivalent to third cycle programmes are carried out within the faculties of medicine, and university hospitals and training hospitals operated by the Ministry of Health.

Universities consist of graduate schools (institutes) offering second cycle (master degree) and third cycle (doctorate) degree programmes, faculties offering first cycle (bachelor degree) programmes, four-year higher schools offering first cycle (bachelor degree) degree programmes with a vocational emphasis and two-year vocational schools offering short cycle (associate degree) degree programmes of strictly vocational nature.

Second cycle degree holders may apply to third cycle programmes if their performance at the first cycle degree level is exceptionally high and their national central Graduate Education Entrance

Examination (ALES) score is also high and their application is approved. The doctoral degree is conferred subject to at least one publication in a cited and refereed journal.

