# NEAR EAST UNIVERSITY

## INSTITUTE OF GRADUATE STUDIES

# MSc PROGRAM in COMPUTER INFORMATION SYSTEMS

COURSE CATALOGUE 2021-22 FALL

## > QUALIFICATION AWARDED

The students who successfully complete the program are awarded the degree of Master of Science in Computer Information Systems.

## > LEVEL OF QUALIFICATION

This is a Second Cycle (Bachelor's Degree) program

## > SPECIFIC ADMISSION REQUIREMENTS

Prospective students are required to meet the following conditions when applying to doctoral degree programs:

- **Diplomas and Graduation Grade Point Average:** Prospective students are required to have a master's degree diploma to have admission eligibility for doctoral degree programs. Prospective students, who want to admit doctoral degree programs are required to have at least 80 (eighty) out of 100 (hundred), or 3.00 out of 4.00 (GPA) grade point average in their master's degree (thesis option) program.
- **ALES score:** In the line with points required by the program applied, prospective students are required to achieve at least 55 (fifty-five) standard points in ALES in order to be eligible for admission to doctoral degree programs. ALES is not required for student admission to programs offered by the departments of Fine Arts, Performing Arts, and Major Arts. Besides, excluding students from Turkey, students from other countries and TRNC are not required to take ALES.
- **Evaluation:** The result of the interview, ALES score and undergraduate and/or master's degree grade point average are evaluated for student admission to the doctoral degree programs. By taking into account the letter of reference submitted by the student with his/her application form, and the composition indicating why he/she wants to receive doctoral degree education as well as his/her goals, an oral evaluation is realized through an interview.
- **Foreign Language Exam:** Prospective students, who apply for admission to master's degree programs where the medium of instruction is the Turkish language, are required to achieve at least a score corresponding to "D" in the NEU Foreign Language Proficiency Test (NPT) held by the NEU Rectorate. Prospective students, who apply for doctorate degree programs where the medium of instruction is the English language, are required to achieve at least a score corresponding to "C" in the same exam. In cases where foreign language exam is required, prospective students may be exempted from the foreign language (English) exam within the framework of the paragraph (b) of Article 8 of the Institute of Graduate Studies' Regulations.

## > QUALIFICATION REQUIREMENTS AND REGULATIONS

The students studying in this undergraduate program are required to have a Cumulative Grade Points Average (CGPA) of not less than 3.00/4.00 and have completed all the courses with at least a letter grade of CC/S in the program in order to graduate. The minimum number of ECTS credits required for graduation is 120.

## RECOGNITION OF PRIOR LEARNING

At Near East University, full-time students can be exempted from some courses within the framework of the related bylaws. If the content of the course previously taken in another institution is equivalent to the course offered at NEU, then the student can be exempted from this course with the approval of the related faculty/graduate school after the evaluation of the course content.

#### > PROFILE OF THE PROGRAM

The Master degree programme aims to teach and develop the leadership skills of students at graduate level so that they can take managerial positions and be leaders in their future careers. The department also aims to ensure that those students who wish to continue into postgraduate studies at the Doctoral level are equipped with the necessary theoretical and practical knowledge and the abilities to carry out research in a professional manner after graduating from the department. For these purposes, the programme aims to gain more deeper knowledge, competencies and expertise on particularly focusing on three tracks as; IT Project Management, System Analysis Design and Development and Network and Security.

## > PROGRAM OUTCOMES

P	rogram Outcomes
1	To be able work as member of a group work in the development of projects practically and responsibly.
2	To be able to manage the acquisition, structuring, analysis and visualization of data and information in the area of informatics engineering, and critically assess the results of this effort.
3	Fundamental (problem solving, etc.) skills in lifelong learning.
4	To be able to develop higher-order thinking skills to solve problems in their area of study to create and use models that reflect real situations.
5	To be able to develop technical competencies in information technologies and systems in all types of companies and technology centers in the area of Computer Science.
6	To be able to apply competencies related to specialized fields in multidisciplinary working environments.
7	To be able to carry out field-specific competencies of all the stages such as model, plan, state IT system architecture, implement, manage, operate, administrate and maintain applications, networks, systems and services in the process of building an information system.

## > COURSE & PROGRAM OUTCOMES MATRIX

		Program Outcomes						
Course Code	Course Name	1	2	3	4	5	6	7
GCC603	Research Methods and Ethics	3	5	5	5	3	3	2
CIS5XX	Technical Elective							
CIS5XX	Technical Elective							
CIS5XX	Technical Elective							
ıst Year - 2nd	l Semester							
CIS542	New Trends in IT	5	3	5	5	5	5	5
CIS5XX	Technical Elective							
CIS5XX	Technical Elective							

CIS502	Seminar	4	5	4	5	3	3	3
2nd Year - 1st Semester								
CIS500	M.Sc. Thesis	5	5	5	5	5	5	5
2nd Year - 2nd	2nd Year - 2nd Semester							
CIS500	M.Sc. Thesis	5	5	5	5	5	5	5
Technical (Fiel	d-Related) Elective Courses							
CIS503	Adv. Database Mang. Systems	3	3	5	5	5	5	5
CIS504	Adv. Mang. Information Systems	3	3	5	5	5	4	3
CIS505	Adv. Information Systems Security	4	4	5	5	4	4	3
CIS508	Mobile App. Development	3	5	5	5	4	4	5
CIS509	Adv. Soft. Engineering	5	5	4	5	5	5	4
CIS512	IT Project Management	5	5	5	4	5	4	3
CIS513	Adv. Computer Networks	3	5	4	5	5	4	4
CIS516	Knowledge Management	5	4	4	5	3	3	3
CIS517	Innovations Management	5	4	5	5	3	3	3
CIS524	Human Resource Management	5	4	5	5	3	3	3
CIS525	Human-Computer Interaction	3	4	5	5	4	5	4
CIS526	Cloud Computing Systems	3	4	5	5	4	5	4
CIS527	Data Mining	3	4	5	5	4	5	5
CIS528	Adv. Web Development	3	5	5	5	4	5	4
CIS529	Adv. System Analysis Methods	5	5	5	4	5	5	4
CIS531	IT Communication Technologies	5	3	5	5	4	5	4
CIS532	Internet Technologies	3	3	5	5	4	5	4
CIS534	Adv. Soft. Testing	4	4	5	5	4	4	4
CIS535	Games and Gamification	5	5	5	5	4	5	5
CIS540	Strategic Management	5	4	5	5	2	3	3
CIS541	E-Commerce in Business	5	5	3	5	3	5	3
CIS544	Management of E-Learning Systems	3	3	5	5	5	4	3
CIS546	Total Quality Management	5	4	4	5	2	1	2

<sup>\* 1</sup> Lowest, 2 Low, 3 Average, 4 High, 5 Highest

## > OCCUPATIONAL PROFILES OF GRADUATES

Graduates from our Master's degree programme can virtually find jobs in all government and private organizations where computers are used. Some popular working areas of our graduates are: IT departments of private and public companies, Communications and networking departments of private

and government firms, Independent IT consultancy, Research and development at universities and in other institutions, Teaching IT, and Setting up their own businesses.

Additionally, Master's degree graduates have the options of continuing with higher education for Doctoral studies in the field of computer information technology or related fields.

## > ACCESS TO FURTHER STUDIES

The students graduating from this program (thesis option) may apply to a Third Cycle (PhD degree) program.

## > PROGRAM STRUCTURE

The thesis option of the Master program in Computer Information Systems consists of 7 courses, seminar, qualification exam and thesis with 120 ECTS credits in total.

Students are required to take a minimum of 2 maximum of 4 courses in each semester. All the elective courses are taken from the other related departments.

Students who have no background in Computer Information Systems are required to successfully complete (pass with a minimum CC grade) 3 foundation courses: CIS132 Intro. to Algorithm and Programming, CIS246 (Database Management)/CIS386 (Database Programming I); CIS205 (Programming Language I)/CIS232 (Programming Language II)/CIS356 (Object Oriented Programming Language I)/CIS488 (Web Development) before starting the program.

#### > COURSE STRUCTURE DIAGRAM WITH COURSE CREDITS

To see the course details (such as objectives, learning outcomes, content, assessment and ECTS workload), click the relevant Course Code given in the table below.

1st Year Fall Semester							
Course Code	Pre.	Course Name	Theory	Application/ Laboratory	Local Credits	ECTS	
GCC603	-	Research Methods and Ethics	2	2	3	7.5	
CIS5XX	-	Technical Elective	2	2	3	7.5	
CIS5XX	-	Technical Elective	2	2	3	7.5	
CIS5XX	-	Technical Elective	2	2	3	7.5	
Total						30	

1st Year Spring Semester								
Course Code	Pre.	Course Name	Theory	Application/ Laboratory	Local Credits	ECTS		
CIS542	-	New Trends in IT	2	2	3	7.5		
CIS5XX	_	Technical Elective	2	2	3	7.5		
CIS5XX	-	Technical Elective	2	2	3	7.5		
CIS502	-	Seminar	-	-	-	7.5		

Total 30

2 <sup>nd</sup> Year Fall Semester							
Course Code	Pre.	Course Name	Theory	Application/ Laboratory	Local Credits	ECTS	
CIS500	7 courses + seminar	M.Sc. Thesis	-	-	-	30	
Total						30	

2 <sup>nd</sup> Year Spring Semester							
Course Code	Pre.	Course Name	Theory	Application/ Laboratory	Local Credits	ECTS	
CIS500	7 courses + seminar	M.Sc. Thesis	-	-	-	30	
Total						30	

Field-Related / Technical Elective Courses								
Code	Pre.	Course Name	Theory	Application/ Laboratory	Local Credits	ECTS		
CIS503	-	Adv. Database Mang. Systems	2	2	3	7.5		
CIS504	-	Adv. Mang. Information Systems	2	2	3	7.5		
CIS505	-	Adv. Information Systems Security	2	2	3	7.5		
CIS508	-	Mobile App. Development	2	2	3	7.5		
CIS509	-	Adv. Soft. Engineering	2	2	3	7.5		
CIS512	-	IT Project Management	2	2	3	7.5		
CIS513	-	Adv. Computer Networks	2	2	3	7.5		
CIS516	-	Knowledge Management	2	2	3	7.5		
CIS517	-	Innovations Management	2	2	3	7.5		
CIS524	-	Human Resource Management	2	2	3	7.5		
CIS525	-	Human-Computer Interaction	2	2	3	7.5		
CIS526	-	Cloud Computing Systems	2	2	3	7.5		
CIS527	-	Data Mining	2	2	3	7.5		
CIS528	-	Adv. Web Development	2	2	3	7.5		

CIS529	-	Adv. System Analysis Methods	2	2	3	7.5
CIS531	-	IT Communication Technologies	2	2	3	7.5
CIS532	-	Internet Technologies	2	2	3	7.5
CIS534	-	Adv. Soft. Testing	2	2	3	7.5
CIS535	-	Games and Gamification	2	2	3	7.5
CIS540	-	Strategic Management	2	2	3	7.5
CIS541	-	E-Commerce in Business	2	2	3	7.5
CIS544	-	Management of E-Learning Systems	2	2	3	7.5
CIS546	-	Total Quality Management	2	2	3	7.5

#### Additional Notes

A total of 120 ECTS credits of courses are required to graduate. The Computer Information Systems students must complete the compulsory courses and technical elective courses to provide a total of 120 ECTS credits. Otherwise, they will not be deemed to fulfill the conditions to graduate from the program.

If you need support for these courses due to your disability, please refer to Disability Support Unit. Contact; <a href="mailto:engelsiz@neu.edu.tr">engelsiz@neu.edu.tr</a>

#### > EXAM REGULATIONS & ASSESSMENT & GRADING

Exam Regulations and, Assessment, and Grading

For each course taken at NEU, the student is given one of the letter grades below by the instructor as the semester course grade. Each grade has also its ECTS grade equivalent

The table below provides the detailed information about the local letter grades, coefficients and ECTS grade equivalents.

SCORE	GRADE	COEFFICIENT	ECTS Grade
90-100	AA	4.0	A
85-89	BA	3.5	B*
80-84	ВВ	3.0	B*
75-79	СВ	2.5	C*
70-74	CC	2.0	C*
60-69	DC	1.5	D

50-59	DD	1.0	E
49 and below	FF	0.0	F

<sup>\*</sup>for these ones, the higher grade is applied

In order to be successful in a course, short cycle (associate degree) and first cycle (bachelor's degree) students have to get a grade of at least DD, second cycle (master's degree) students have to get a grade of at least CC, and third cycle (Ph.D.) students have to get a grade of at least CB to pass a course. For courses which are not included in the cumulative GPA, students need to get a grade of S.

Apart from that, each local grade has it is equivalent ECTS grade which makes it easier to transfer the grades of mobility periods of students. The chart above shows the ECTS grading system at NEU.

Also, among the Letter Grades;

I	Incomplete
S	Satisfactory Completion
U	Unsatisfactory
P	Successful Progress
NP	Not Successful Progress
EX	Exempt
NI	Not included
W	Withdrawal
NA	Never Attended

Grade of I (Incomplete), is given to students who are not able to meet all the course requirements at the end of the semester or summer school due to a valid justification accepted by the instructor. Students who receive a letter grade "I" must complete their missing course requirements and receive a letter grade within one week following the date the end of semester grades or summer school grades submitted. However, in the event of special cases, this period can be extended until two weeks before the beginning of registration for the next semester, upon the recommendation of the respective Graduate School department head and the decision of that academic unit's administrative board. Otherwise, grade of "I" will automatically become grade of FF, or grade of U.

Grade of S (Satisfactory) is given to students who are successful in non-credited courses.

Grade of U (Unsatisfactory) is given to students who are unsuccessful in non-credited courses.

Grade of P (Successful Progress) is given to students, who continue to the courses that are not included in the GPA that has a period exceeding one semester, and regularly performs the academic studies for the respective semester.

Grade of NP (Not Successful Progress) is given to students, who do not regularly perform the academic studies for the respective semester for courses that are not included in the GPA and have a period exceeding one semester.

Grade of EX (Exempt), is given to students who are exempt from some of the courses in the curriculum.

Grade of NI (Not included) is issued to identify the courses taken by the student in the program or programs which are not included in the GPA of the student. This grade is reported in the students' transcripts with the respective letter grade. Such courses are not counted as the courses in the program that the student is registered to.

Grade of W (Withdrawal) is used for the courses that the student withdraws from in the first ten weeks of the semester following the add/drop period, upon the recommendation of his/ her advisor and the permission of the instructor that teaches the course. A student is not allowed to withdraw from courses during the first two semesters of his/ her associate/undergraduate degree program and from those courses he/she has to repeat and received grade "W" before, which are not included in the grade average. A student is allowed to withdraw from two courses at the most during his/ her associate degree study, and four courses during his/her undergraduate study upon the recommendation of the advisor and the permission of the instructor that teaches the course. A student has to take the course that he/she withdrew from, the first semester in which it is offered.

Grade "NA" (Never Attended) is issued by the instructor for students who fail to fulfil the attendance and/or requirements of the course and/or who lose their right to take the end of semester exam because they failed to take any of the exams administered throughout the semester. Grade "NA" is not considered in the average calculations.

Both the ECTS grades and the local grades of the students are displayed on the official transcript of the students.

## > GRADUATION REQUIREMENTS

In order to graduate from this undergraduate program, the students are required:

- To succeed in all of the courses listed in the curriculum of the program by getting the grade of at least CC/S with a minimum of 120 ECTS.
- To have a Cumulative Grade Point Average (CGPA) of 3.00 out of 4.00.

#### > MODE OF STUDY

This is a full-time program.

### > PROGRAM DIRECTOR (OR EQUIVALENT)

Prof. Dr. Nadire Cavus, Head of Department, Institute of Graduate Studies, Near East University.

#### > EVALUATION QUESTIONNAIRES

**Evaluation Survey** 

**Graduation Survey** 

Satisfaction Survey