## CHAIRMAN'S STATEMENT

Dear students,

I welcome you to the Computer Engineering Department of Eastern Mediterranean University. You have surely made the right decision to join our department. As an undergraduate student, you will receive top quality education that is up-to-date from experienced and motivated faculty members and follow a curriculum that is constantly updated to be in line with ACM and IEEE curricula. Furthermore, our undergraduate Software and Computer Engineering programs are ABET accredited, which is assurance for you that when you graduate from these programs you will have excellent job prospects worldwide.

As a department, and as a university, we value international cooperation greatly. Currently, we have an agreement with the University of North Texas (USA), allowing our students to take courses in this university and continue their studies at the Master's level. Details are available on our web site.

We also value the well-being and success of our students. As of the Spring 2022-2023 semester, we started a tutoring program in the department whereby students with high CGPAs in upper classes can become student assistants and tutor other students on topics where they may need assistance. We are continuing this program in the current academic year as well. If you want to serve as a tutor or if you need the help of a tutor for some course, please apply to the departmental administration.

Finally, let me share my thoughts on your education at EMU with you. I urge you to take advantage of everything our department has to offer you to get the best possible education and be well prepared for a hi-tech job in a very competitive job market. Study hard and learn well. In addition, help your fellow students if they need it, find time to socialize with your friends, make good use of our university's extensive sports facilities, enjoy the sea, the sun, the sand and the mild weather on our beautiful island, visit our numerous historic sites, participate in extra-curricular activities by joining student clubs that exist in big numbers in our university, in short have the full student experience at EMU that you will remember for the rest of your life as amazingly good memories. All the while knowing that we are here to help you in all ways possible to achieve your goals.

My best wishes to you all.

**Prof. Dr. Zeki Bayram**

**Chairman**

# GENERAL INFORMATION

## Administration

**Chair**
Prof. Dr. Zeki Bayram

**Vice Chair**
Asst. Prof. Dr. Ahmet Ünveren

## Department's Mission

The Department of Computer Engineering of Eastern Mediterranean University was established in 1993 and first group of students graduated in 1997. The mission of the department is to train its students to be multilingual, have good communication skills, be ready for teamwork, and qualified to undertake roles in future projects designed for the benefit of society.

## Departmental Facilities

EMU Computer Engineering Department Faculty is composed of 10 professors, 1 associate professor, 2 distinguished professors, 2 senior faculty members, 2 assistant professors, 1 instructor and 22 research assistants. In addition, a varying number of student assistants with high grade point averages provide free private lessons to department students who require assistance with their studies.

The education provided in the department is supported by 2 fully equipped general-use computer laboratories, 3 multimedia laboratories, 2 logic design laboratories, 1 iMac laboratory, 1 circuit and electronics laboratory, and 1 artificial intelligence and graduate level research and development laboratory.

## Programs

The department currently has four bachelors (BS) level programs: Computer Engineering (in English), Software Engineering (in English), Computer Engineering (in Turkish) and Artificial Intelligence Engineering (in English). The BS students take basic mathematics and physics courses, English courses and introductory computer science and programming courses in their freshman year. In their sophomore and junior years, they take fundamental programming, computer hardware and computer networks courses. In their senior year, BS students take 3 technical elective courses and prepare a graduation project which helps them improve their individual research, written and oral communication skills.

The aim of the MS level Computer Engineering graduate program (established in 1997) is to improve synthesis and design abilities of students, improve their research competence, and enrich their independent study skills. The program has thesis and non-thesis options. Starting from Spring 2022, a new MS in Software Engineering program is also active. The Doctoral (PhD) program (established in 1999) aims to produce academicians who can conduct original research in the Computer Engineering field, become qualified faculty members in universities or perform advanced research in research institutes.

## Distinguishing Attributes

The department has proven its competence in Computer Engineering education with the ABET (Accreditation Board for Engineering and Technology) accreditation it received in 2009 for the first time. This accreditation was renewed in 2022 and is valid until 2028. The Software Engineering program received its first accreditation by ABET in 2016 and has been re-accredited in 2022, valid until 2028 as well. Currently it is the only accredited Software Engineering program in Turkey and TRNC.

The Eastern Mediterranean University is ranked within the 601-800 band in Times Higher Education list of best universities in the world for the year 2026.

In many courses, much of the weight is given to term projects, assignments and practical application of knowledge and skills, which helps the students improve their written and oral communication and individual research skills. This approach certainly creates an advantage for our graduates in finding better jobs after graduation.

## Major Accomplishments

The Computer Engineering Department, along with its educational responsibilities, is contributing to the economic development of the TRNC with different research projects. Faculty members have participated in a number of European Union projects. The Computer Engineering Department was also involved in the initiation and development of online distance education projects of EMU.

Our students have obtained successful results in many project and programming competitions. A recent example to this is first position by two of our students (in a group of three) in the 2024 Teknofest “Flying Car Simulation” competition.

The department has graduated more than 2450 BS and more than 340 MS students. Some of these graduates are working in international companies in various countries. Most of our 62 PhD graduates are currently academic staff members at universities in various countries.

## Quality of Graduates

Our department aims at an education conforming to global standards and is interested in the career conditions of our graduates. In this regard, it continually upgrades the senior year technical electives and improves its programs to meet the current needs of the computer industry. In our English program, more than half of the freshman are foreign students. Some of our graduates are currently enrolled in graduate programs in USA and Europe.

## Career Opportunities

Students successfully completing the graduation requirements are granted the BS degree in Computer Engineering, Software Engineering or Artificial Intelligence Engineering. Graduates can find jobs as system administrators, application developers, software engineers, database administrators, software designers and can take part in computer aided industrial applications, or as engineers in research and development projects. Also, a significant number of our graduates are pursuing graduate level degrees and becoming academic staff members in different universities.

## Contact Information

| | |
|---|---|
| **Address:**<br><br>Department of Computer Engineering<br>Eastern Mediterranean University<br>Famagusta, 99628, North Cyprus<br>via Mersin 10, Turkey | **Tel:** +90 392 630 1484<br>**Fax:** +90 392 365 0711<br>**E-mail:** cmpe.info@emu.edu.tr<br>**Web:** https://cmpe.emu.edu.tr<br><br>**Facebook:** https://www.facebook.com/cmpeofficial<br>**Instagram**: https://www.instagram.com/cmpeofficial |

## 2025 – 2026 ACADEMIC CALENDAR

| FALL SEMESTER | | | |
|---|---|---|---|
| **August** | 04 | 2025 | Online Course Registration For Fall Term 2025 - 2026 Commences |
| **September** | 01 - 03 | 2025 | 2024 - 2025 Summer Term Final Examinations Period |
| **September** | 04 | 2025 | Religious Day (Mawlid Sep. 03 night) |
| **September** | 05 | 2025 | Last Day For The Submission Of 2024 - 2025 Summer Term Grades to The Registrar |
| **September** | 06 - 08 | 2025 | Online Application for Summer Term Graduation Make-up Examinations Period |
| **September** | 08 | 2025 | Last Day For Submission of The Summer Term Graduation Decisions to The Registrar |
| **September** | 09 | 2025 | English Proficiency Test 1st Stage * |
| **September** | 09 - 10 | 2025 | Summer Term Graduation Examinations Period |
| **September** | 09 - 20 | 2025 | Orientation Days For New Students |
| **September** | 11 | 2025 | Last Day For The Submission of 2024 - 2025 Spring and Summer Term 'Incomplete' Grades and Graduation Make up Grades To The Registrar |
| **September** | 11 | 2025 | English Proficiency Test 2nd Stage; Reading, Writing and Listening Sessions |
| **September** | 12 | 2025 | English Proficiency Test 2nd Stage; Speaking Session |
| **September** | 12 | 2025 | Last Day for The Submission of Graduation Decisions of Students who will Graduate as a Result of 2023 - 2024 Spring or Summer Term Incomplete Grades or Graduation Make up examination to The Registrar |
| **September** | 15 | 2025 | Last Day for Graduation of students graduating at the end of 2024 - 2025 Summer Term and Graduation of Students Who Complete Their Graduation Procedures Late |
| **September** | 16 | 2025 | Last Day For Online Course Registration |
| **September** | 18 | 2025 | Announcement of English Proficiency Test 2nd Stage Results |
| **September** | 17 - 19 | 2025 | Course Registration Period (Course Registrations Accompanied by Advisor and Approval of Registration) |
| **September** | 22 | 2025 | 2025 - 2026 Fall Term Classes Commence<br>First Day Of Late Registration |
| **September** | 29 | 2025 | Last Day For Late Registration |
| **October** | 03 | 2025 | Last Day For The Submission of 2024 - 2025 Spring and Summer Term Letter Grade Changes To The Registrar |
| **October** | 06 | 2025 | Last Day For Add / Drop |
| **October** | 29 | 2025 | National Holiday (Turkish Republic Republic Day) |
| **November** | 10 | 2025 | Commemoration of Atatürk |
| **November** | 15 | 2025 | National Holiday (Turkish Republic of Northern Cyprus Republic Day) |
| **November** | 08 - 22 | 2025 | Mid-Term Examinations Period |
| **November** | 24 | 2025 | System Will Be Accessible For Entering Courses To Be Offered In Spring Term 2025 - 2026 |
| **December** | 08 | 2025 | Last Day for submission of University Elective Courses to be Offered in the Spring Term of 2025 - 2026 by the Elective Courses Commission to the Rectorate |
| **December** | 12 | 2025 | Last Day For Course Withdrawal |
| **December** | 12 | 2025 | Last Day For Entering Courses To Be Offered In Spring Term 2025 - 2026 to the system |
| **December** | 19 | 2025 | Last Day For Applying To Get Leave Of Absence |
| **December** | 25 | 2025 | Christmas Day ** |
| **December** | 30 | 2025 | Last Day of Classes |
| **January** | 01 | 2026 | New Year's Day |
| **January** | 05 - 20 | 2026 | Final Examinations Period |
| **January** | 26 | 2026 | Last Day For The Submission Of Grades To The Registrar |
| **January** | 27 | 2026 | Last Day For Submission of The 2025 - 2026 Fall Semester Graduation Decisions to The Registrar |
| **January** | 27 - 29 | 2026 | Online Application Period For Resit Examinations |
| **January** | 30 | 2026 | Online Course Registration For Spring Term 2025 - 2026 Commences |
| **January** | 30 | 2026 | Fall Term Associate / Undergraduate / Graduate Graduation Ceremony |

| | | | |
|---|---|---|---|
| *** Those who are successful in the 1st Stage Exam, must take the 2nd Stage Exam.** | | | |
| **** Attendance will not be taken in classes and no quizzes or any other exams will be administered** | | | |
| **SPRING TERM** | | | |
| **February** | 03 - 09 | 2026 | 2025 - 2026 Fall Term Resit Examinations |
| **February** | 09 - 15 | 2026 | Orientation Days For New Students |
| **February** | 10 | 2026 | English Proficiency Test 1st Stage * |
| **February** | 11 | 2026 | Last Day For The Submission of 2025 - 2026 Fall Term Resit Examinations Grades To The Registrar |
| **February** | 12 - 13 | 2026 | Start of Online Application for 2025 - 2026 Fall Semester Graduation Make-Up Examinations |
| **February** | 12 | 2026 | Last Day For The Submission of 2025 -2026 Fall Term 'Incomplete' (I) Grades To The Registrar |
| **February** | 12 | 2026 | English Proficiency Test 2nd Stage; Reading, Writing and Listening Sessions |
| **February** | 13 | 2026 | English Proficiency Test 2nd Stage; Speaking Session |
| **February** | 13 | 2026 | Last Day For Submission Of Graduation Decisions of the Students Who Will Graduate as a Result of 2025 - 2026 Fall Semester Resit Examination To The Registrar |
| **February** | 16 - 17 | 2026 | 2025 - 2026 Fall Semester Graduation Make Up Examination Period |
| **February** | 17 | 2026 | Last Day For Online Course Registration |
| **February** | 18 | 2026 | Last Day For The Submission of 2025 - 2026 Fall Term Letter Grade Changes and Graduation Make-Up Grades To The Registrar |
| **February** | 18 - 20 | 2026 | Course Registration Period (Course Registrations Accompanied by Advisor and Approval of Registration) |
| **February** | 20 | 2026 | Announcement of English Proficiency Test 2nd Stage Results |
| **February** | 19 | 2026 | Last Day For Submission Of Graduation Decisions of the Students Who Will Graduate as a Result of 2025 - 2026 Fall Term Graduation Make-Up, Resit Examinations or Incomplete (I) Grades To The Registrar |
| **February** | 23 | 2026 | 2025 - 2026 Spring Term Classes Commence<br>First Day of Late Registration |
| **February** | 23 | 2026 | Last Day for Graduation for 2025 - 2026 Fall Term Resit Examinations Graduates or Graduation of Students Who Complete Their Graduation Procedures Late |
| **March** | 02 | 2026 | Last Day For Late Registration |
| **March** | 09 | 2026 | Last Day For Add / Drop |
| **March** | 19 | 2026 | Ramadan Bairam Eve |
| **March** | 20 - 22 | 2026 | Ramadan Bairam |
| **April** | 10 - 25 | 2026 | Mid-Term Examinations Period |
| **April** | 23 | 2026 | National Holiday (National Sovereignty & Children's Day) |
| **May** | 01 | 2026 | National Holiday (Workers' and Spring Day) |
| **May** | 05 | 2026 | System Will Be Accessible For Entering Courses To Be Offered In Summer Term 2025 - 2026 |
| **May** | 11 | 2026 | Last Day for submission of University Elective Courses to be Offered in the Summer Term of 2025 - 2026 by the Elective Courses Commission to the Rectorate |
| **May** | 13 - 16 | 2026 | Spring Festival |
| **May** | 19 | 2026 | National Holiday (Atatürk Commemoration, Youth and Sports Day) |
| **May** | 22 | 2026 | Last Day For Course Withdrawal |
| **May** | 26 | 2026 | Kurban Bairam Eve |
| **May** | 27 - 30 | 2026 | Kurban Bairam |
| **June** | 01 | 2026 | Last Day For Applying To Get Leave of Absence |
| **June** | 01 | 2026 | Last Day For Entering Courses To Be Offered In Summer Term 2025 - 2026 to the system |
| **June** | 11 | 2026 | Last Day of Classes |
| **June** | 12 | 2026 | System Will Be Accessible For Entering Courses To Be Offered In Fall Term 2026 - 2027 |
| **June** | 15 - 27 | 2026 | Final Examinations Period |

| | | | |
|---|---|---|---|
| **June** | 26 | 2026 | Last Day for submission of University Elective Courses to be Offered in the Fall Term of 2026 - 2027 by the Elective Courses Commission to the Rectorate |
| **July** | 01 - 15 | 2026 | Online Course Registration Period For Summer Term 2025 - 2026 |
| **July** | 02 | 2026 | Last Day For The Submission of 2025 - 2025 Spring Semester Grades To The Registrar |
| **July** | 03 | 2026 | Last Day For Submission of The Graduation Decisions To The Registrar |
| **July** | 03 - 06 | 2026 | Online Application Period For Resit Examinations |
| **July** | 07 | 2026 | Spring Term Graduate Graduation Ceremony |
| **July** | 08 | 2026 | Spring Term Associate/Undergraduate Graduation Ceremony |
| ***Those who are successful in the 1st Stage Exam, must take the 2nd Stage Exam.** | | | |
| **SUMMER TERM** | | | |
| **July** | 09 - 14 | 2026 | 2025 - 2026 Spring Term Resit Examinations Period |
| **July** | 13 | 2026 | Last Day For Entering Courses To Be Offered In 2026 - 2027 Fall Term to the System |
| **July** | 15 | 2026 | Last Day for Summer Term Online Course Registration |
| **July** | 16 | 2026 | Last Day For The Submission of 2025 - 2026 Spring Term Resit Examinations Grades To The Registrar |
| **July** | 16 - 17 | 2026 | Course Registration Period (Course Registrations Accompanied by Advisor and Approval of Registration) |
| **July** | 17 | 2026 | Last Day For Submission of Graduation Decisions of the Students Who Will Graduate as a Result of 2025 - 2026 Spring Term Resit Examinations to The Registrar |
| **July** | 17 - 21 | 2026 | Start of Online Application for 2025 - 2026 Spring Semester Graduation Make-Up Examinations |
| **July** | 20 | 2026 | National Holiday (Peace and Freedom Day) |
| **July** | 23 | 2026 | Summer Term Classes Commence<br>First Day of Late Registration |
| **July** | 22 - 23 | 2026 | 2025 - 2026 Spring Semester Graduation Make Up Examination Period |
| **July** | 24 | 2026 | Submission of 2025 - 2026 Spring Term Graduation Make-Up Grades To The Registrar |
| **July** | 24 | 2026 | Submission of 2025 - 2026 Spring Term Graduation Decisions of the students who will graduate as the result of Graduation Make-Up Exam To The Registrar |
| **July** | 30 | 2026 | Last Day For Late Registration |
| **August** | 01 | 2026 | National Holiday (National Resistance Day) |
| **August** | 03 | 2026 | Online Course Registration For Fall Term 2026 - 2027 Commences |
| **August** | 04 | 2026 | Last Day For Add / Drop |
| **August** | 21 | 2026 | Last Day For Course Withdrawal |
| **August** | 25 | 2026 | Religious Day (Mawlid August 24 night) |
| **August** | 28 | 2026 | Last Day of Classes |
| **August** | 30 | 2026 | National Holiday (Victory Day) |
| **Aug. - Sept.** | 31 - 02 | 2026 | Summer Term Final Examinations |
| **September** | 04 | 2026 | Last Day For The Submission of Summer Term Grades to The Registrar |
| **September** | 05 - 07 | 2026 | Online Application Period for Summer Term Graduation Make Up Examinations |
| **September** | 07 | 2026 | Last Day For Submission of The Summer Term Graduation Decisions To The Registrar |
| **September** | 08 - 09 | 2026 | Summer Term Graduation Make Up Examinations Period |
| **September** | 10 | 2026 | Last Day For The Submission of 2025 - 2026 Spring and Summer Term 'Incomplete' Grades and Graduation Make Up Grades To The Registrar |
| **September** | 11 | 2026 | Last Day For The Submission of 2025 - 2026 Summer Term Graduation Decisions and Graduation Decisions of Students who will Graduate as a Result of 2025 - 2026 Spring or Summer Term Incomplete Grades or Graduation Make Up examinations Result To The Registrar |
| **September** | 14 | 2026 | Last Day for Graduation of Students Graduating at the End of Summer Term and Graduation of the Students Who Complete Incomplete (I) Grades of 2025 - 2026 Spring Term |

## FACULTY MEMBERS

### Chair

***Prof. Dr. Zeki Bayram***
Ph.D. 1993, The University of Alabama, Birmingham, Alabama, USA
Basic Interests: Basic Interests: Programming Languages, Logic Programming, Automated Deduction, Semantic Web, Constraint Programming, Knowledge Based Systems, Intelligent Agents
***e-mail:*** *zeki.bayram@emu.edu.tr*

### Vice Chair

***Asst. Prof. Dr. Ahmet Ünveren***
Ph.D. 2002, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Multi-Objective Optimization, Evolutionary Algorithms, Combinatorial Optimization, Metaheuristic Algorithms, Graph Theory
***e-mail:*** *ahmet.unveren@emu.edu.tr*

### Professors

***Prof. Dr. Doğu Arifler***
Ph.D. 2004, The University of Texas, Austin, Texas, USA
Basic Interests: Network Performance Modeling and Simulation, Random Networks, Nano Communication Networks, Wireless Sensor Networks.
***e-mail:*** *dogu.arifler@emu.edu.tr*

***Prof. Dr. Duygu Çelik Ertuğrul***
Ph.D. 2010, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Web technologies, Semantic Web, Agent-based Systems, Artificial Intelligence, Biomedical Systems, Knowledge Representation and Ontology, Software Engineering, Software Project Management.
***e-mail:*** *duygu.celik@emu.edu.tr*

***Prof. Dr. Ekrem Varoğlu***
Ph.D. 2000, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Natural Language Processing (NLP), Biomedical Text Mining, Information Extraction, Bioinformatics, Data Mining
***e-mail:*** *ekrem.varoglu@emu.edu.tr*

***Prof. Dr. Gürcü Öz***
Ph.D. 2001, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Computer Networks, Distributed Systems, Advanced System Simulations, Wireless Networks
***e-mail:*** *gurcu.oz@emu.edu.tr*

***Prof. Dr. Hakan Altınçay***
Ph.D. 2000, Middle East Technical University, Ankara, Turkey
Basic Interests: Pattern Recognition, Speech Processing, Information Fusion, Multiple Classifier Systems
***e-mail:*** *hakan.altincay@emu.edu.tr*

***Prof. Dr. Hasan Kömürcügil***
Ph.D. 1998, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Microprocessor Based Systems, Analog and Digital Circuit Design, Fuzzy Logic Control, Soft Computing, Control Systems
***e-mail:*** *hasan.komurcugil@emu.edu.tr*

***Prof. Dr. Muhammed Salamah***
Ph.D. 1996, Middle East Technical University, Ankara, Turkey
Basic Interests: Wireless Networks, Computer Networks, Performance Evaluation and Queuing Theory, Multiprocessing, Hardware-oriented Algorithms, Positioning Systems, Parallel Processing.
***e-mail:*** *muhammed.salamah@emu.edu.tr*

***Prof. Dr. Omar Ramadan***
Ph.D. 1999, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Communications, Computational Electromagnetic, Digital Signal Processing, Parallel Programming, Fiber Optics, Numerical Mathematics
***e-mail:*** *omar.ramadan@emu.edu.tr*

***Prof. Dr. Önsen Toygar***
Ph.D. 2004, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Biometrics, Computer Vision, Image Processing, Evolutionary Computation.
***e-mail:*** *onsen.toygar@emu.edu.tr*

## Associate Professors

***Assoc. Prof. Dr. Yıltan Bitirim***
Ph.D. 2003, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Information Retrieval Systems, Database Management Systems, Wireless Personal Communication, Artificial Intelligence
***e-mail:*** *yiltan.bitirim@emu.edu.tr*

## Assistant Professors

***Asst. Prof. Dr. Cem Ergün***
Ph.D. 2004, Eastern Mediterranean University, Famagusta, T.R.N.C.
Basic Interests: Speaker Recognition in Low Bit Rate Channels, Speech Enhancement, and Application of Genetic Algorithms and Neural Networks to Communication/Signal Processing Problems
***e-mail:*** *cem.ergun@emu.edu.tr*

## Distinguished Professors

***Prof. Dr. Alexander Chefranov***
Ph.D. 1984, Taganrog Radio-Engineering Institute, Taganrog, Russia
D.Sc. 1998, Taganrog State University of Radio-Engineering, Taganrog, Russia
Basic Interests: Parallel Processing and Programming, Operating Systems, Real-Time Systems, Data Bases, Artificial Intelligence, Information Security, Modeling of Physical Processes
***e-mail:*** *alexander.chefranov@emu.edu.tr*

***Prof. Dr. Işık Aybay***
Ph.D. 1989, Middle East Technical University, Ankara, Turkey
Basic Interests: Distance Education, Real-Time Multimedia Systems, Video-on-demand System, Neural networks
***e-mail****: isik.aybay@emu.edu.tr*

## Senior Faculty Members

***Assoc. Prof. Dr. Adnan Acan***
Ph.D. 1992, Middle East Technical University, Ankara, Turkey
Basic Interests: Evolutionary Computation, Nature-Inspired Metaheuristics, Neural Networks, Classifier Systems, Face Recognition
***e-mail:*** *adnan.acan@emu.edu.tr*

***Assoc. Prof. Dr. Mehmet Bodur***
Ph.D. 1991, Middle East Technical University, Ankara, Turkey
Basic Interests: Evolutionary Methods in Data Mining, Embedded RTOS and Micro Control Systems, Intelligent Robotic Control Systems and Mechatronics, Artificial Intelligence (Adaptive and Learning Systems, Evolutionary Algorithms, and Fuzzy Logic), Embedded Process Control and Instrumentation
***e-mail****: mehmet.bodur@emu.edu.tr*

## RESEARCH ASSISTANTS

### Ph.D. Research Assistants

***Behnam Bojnordi Arbab***
B.S. 2014 Department of Computer Engineering, Ferdowsi University of Mashhad, Iran
M.Sc. 2022 Faculty of Computer Science, University of New Brunswick, Canada
***e-mail:*** *23600334@emu.edu.tr*

***Ebru Karaçam***
B.S. 2008 Department of Computer Engineering, European University of Lefke, T.R.N.C
M.Sc. 2017 Department of Engineering Management, Bahcesehir University, T.R.N.C
M.Sc. 2024 Department of Computer Engineering, European University of Lefke, T.R.N.C
***e-mail:*** *24600021@emu.edu.tr*

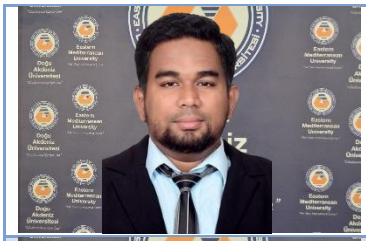
***Ebtihal Enfes***
B.S. 2023, Department of Computer Engineering, Eastern Mediterranean University, T.R.N.C
B.S. 2023, Software Engineering Program, Department of Computer Engineering, Eastern Mediterranean University, T.R.N.C
***e-mail:*** 19700369@emu.edu.tr

***Erce Öztürk***
B.Sc. 2021, School of Computing Science, University of Glasgow, Scotland, UK
M.Sc. 2024, Department of Computer Engineering, Eastern Mediterranean University, T.R.N.C.
***e-mail:*** *erce.ozturk@emu.edu.tr*

***Hamidreza Rahimi***
B.S. 2022, Bilgisayar Mühendisliği, Islamic Azad University, Tehran, IRAN
M. Sc. 2025, Department of Computer Engineering, Eastern Mediterranean University, TRNC
***e-mail:*** *hamidreza.rahimi@emu.edu.tr*

***Mahmut Sevince***
B.S. 2016, Computer Engineering Department, Eastern Mediterranean University, T.R.N.C
M.Sc. 2021, Computer Engineering Department, Eastern Mediterranean University, T.R.N.C
***e-mail:*** *mahmut.sevince@emu.edu.tr*

***Mariia Nebesnaia***
*B.S 2022, School of Computer Science, University of The People, California, USA*
M.Sc. 2024, Department of Computer Engineering, Eastern Mediterranean University, T.R.N.C
***e-mail:*** *mariia.nebesnaia@emu.edu.tr*



***Muhammad Rifthy Kalideen***
B.Sc. 2010, Information and Communication Technology, Department of Physical Sciences, University of Jaffna, Sri Lanka.
M.Sc. 2018, Department of Computer Engineering, Ankara University, Turkiye.
***e-mail:*** *23600301@emu.edu.tr*

***Samed Reyhanlı***
B.S. 2019, Computer Engineering Department, Eastern Mediterranean University, T.R.N.C
M.Sc. 2022, Computer Engineering Department, Eastern Mediterranean University, T.R.N.C
***e-mail:*** *samed.reyhanli@emu.edu.tr*

***Zeinab Jabbarbabouei***
B.S. 2012, Department of Computer Engineering, Payam Noor University, Iran
M.Sc 2024, Department of Computer Engineering, Eastern Mediterranean University, T.R.N.C.
***e-mail:*** *zeinab.jabbar@emu.edu.tr*

## M.Sc. Research Assistants

***Ali Farrokhnejad***
B.S., 2025, Faculty of Computer and Information Sciences, Eastern Mediterranean University, T.R.N.C.
***e-mail:*** Ali.Farrokhnejad@emu.edu.tr

***AmirHossein Mokabberi***
B.S. 2024, Computer Engineering, Mazandaran University of Science and Technology
***e-mail:*** *AMIRHOSSEIN.MOKABBERI@emu.edu.tr*

***Burak Erçıktı***
B.S. 2023, Computer Engineering, Akdeniz University, Türkiye
***e-mail:*** *24501272@emu.edu.tr*

***Cemal Ayberk Coşgun***
B.S. 2025, Department of Computer Engineering, Eastern Mediterranean University, T.R.N.C.
***e-mail***: CEMAL.A.COSGUN@emu.edu.tr

***Ezgi Yazıcı***
B.S. 2023, Department of Computer Engineering, Eastern Mediterranean University, T.R.N.C
***e-mail:*** *ezgi.yazici@emu.edu.tr*

***Furkan Alçıkaya***
B.S. 2025, Software Engineering, Eastern Mediterranean University, T.R.N.C.
***e-mail:*** FURKAN.ALCIKAYA@emu.edu.tr

***Mahamat Hassan Mahadjir Hassan***
B.S. 2025, Software Engineering, Eastern Mediterranean University, T.R.N.C.
***e-mail:*** MAHAMAT.H.M.HASSAN@emu.edu.tr

***Mohammad Tosifi***
B.S. 2024, Electrical Engineering Department, Eastern Mediterranean University, T.R.N.C
***e-mail:*** *mohammad.tosifi@emu.edu.tr*

***Morteza Farrokhnejad***
B.S. 2021, Faculty of Computer and Information Sciences, Eastern Mediterranean University, T.R.N.C.
***e-mail:*** *Morteza.Farrokhnejad@emu.edu.tr*

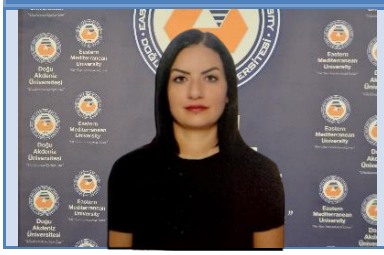
***Nima Abdollahipour***
B.S. 2025, Software Engineering, Eastern Mediterranean University, T.R.N.C.
***e-mail:*** NIMA.ABDOLLAHIPOUR@emu.edu.tr

***Reza Asar***
B.S. 2010, Computer Engineering, Islamic Azad University, Najafabad Branch, Iran
***e-mail:*** *23501688@emu.edu.tr*

***Sohrab Memari***
B.S. 2025, Computer Engineering, Eastern Mediterranean University, T.R.N.C.
***e-mail:*** SOHRAB.MEMARI@emu.edu.tr

## SUPPORT PERSONNEL

### Administrative Assistant



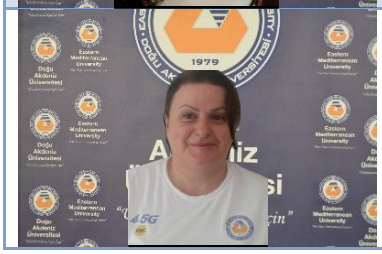
***Tuğçe Yargıcı***
**Tel:** +90 392 630 1484
**Fax**: +90 392 365 0711
***e-mail*:** *tugce.yargici@emu.edu.tr*

### System Administrator

***Necat Abdullahoğlu***
**Tel:** +90 392 630 2995
***e-mail:*** *nejat.abdullahoglu@emu.edu.tr*

### Administrative Managers

***Mehmet Topal***
**Tel:** +90 392 630 1187
***e-mail*:** *mehmet.topal@emu.edu.tr*

| Cleaning Services Personnel | |
|---|---|
|  | ***Semiha Sakallı*** |
|  | ***Deniz Bahçecioğlu Gök*** |
|  | ***Melek Aktaş*** |
|  | ***Aylin Uzun*** |

# UNDERGRADUATE PROGRAM CURRICULA

## UNDERGRADUATE CURRICULUM FOR COMPUTER ENGINEERING

**First Year: Fall Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 25711 | CMPE 107 | Foundations of Computer Engineering | - | 4 | 1 | 4 | 10 |
| 2 | 25712 | MATH 163 | Discrete Mathematics | - | 3 | 1 | 3 | 5 |
| 3 | 25713 | ENGL 191 | Communication in English I | - | 3 | 1 | 3 | 4 |
| 4 | 25714 | MATH 151 | Calculus I | - | 4 | 1 | 4 | 6 |
| 5 | 25715 | PHYS 101 | Physics I | - | 4 | 1 | 4 | 6 |
| S.Tot =5 | | | | | Sem. Total | | 18 | 31 |
| | | | | | Sub- Total | | 18 | 31 |

**First Year: Spring Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| - | 25721 | CMPE 100 | Introduction to Computer Engineering | - | - | 2 | 0 | 1 |
| 1 | 25722 | CMPE 112 | Programming Fundamentals | CMPE 107 | 4 | 1 | 4 | 10 |
| 2 | 25723 | ENGL 192 | Communication in English II | ENGL 191 | 3 | 1 | 3 | 4 |
| 3 | 25724 | MATH 152 | Calculus II | MATH 151 | 4 | 1 | 4 | 6 |
| 4 | 25725 | PHYS 102 | Physics II | - | 4 | 1 | 4 | 6 |
| 5 | 25726 | TUSL 181 | Turkish as a Second Language (other Students) | - | 2 | - | 2 | 2 |
| | | HIST 280 | History of Turkish Reforms (TC/TRNC) | | | | | |
| S.Tot =5 | | | | | Sem. Total | | 17 | 29 |
| | | | | | Sub- Total | | 35 | 60 |

**Second Year: Fall Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 25731 | CMPE 223 | Digital Logic Design | MATH 163 | 4 | 1 | 4 | 7 |
| 2 | 25732 | CMPE 231 | Data Structures | CMPE 112 | 4 | 1 | 4 | 7 |
| 3 | 25733 | CMPE 211 | Object-Oriented Programming | CMPE 112 | 4 | 1 | 4 | 7 |
| 4 | 25734 | ENGL 201 | Communication Skills | ENGL 192 | 3 | 1 | 3 | 4 |
| 5 | 25735 | MATH 241 | Linear Algebra and Ordinary Diff. Equations | MATH 151 | 4 | 1 | 4 | 6 |
| S.Tot =5 | | | | | Sem. Total | | 19 | 31 |
| | | | | | Sub- Total | | 54 | 91 |

**Second Year: Spring Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 25741 | CMPE 224 | Digital Logic Systems | CMPE 223 | 4 | 1 | 4 | 7 |
| 2 | 25742 | CMPE 226 | Electronics for Computer Engineers | MATH 241 | 4 | 1 | 4 | 6 |
| 3 | 25743 | CMPE 242 | Operating Systems | CMPE 112 | 4 | 1 | 4 | 7 |
| 4 | 25744 | MATH 373 | Numerical Analysis for Engineers | MATH 241 | 3 | 1 | 3 | 5 |
| 5 | 25745 | UE - 01 | Basic Science (CHEM 101, BIOL 105, SCIE 130, etc.) | - | 3\|4 | - | 3\|4 | 4 |
| S.Tot =5 | | | | | Sem. Total | | 18\|19 | 29 |
| | | | | | Sub- Total | | 72\|73 | 120 |

## UNDERGRADUATE CURRICULUM FOR COMPUTER ENGINEERING (CONTINUED)

**Third Year: Fall Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 25751 | CMPE 325 | Computer Architecture and Organization | CMPE 224 | 4 | 1 | 4 | 7 |
| 2 | 25752 | CMPE 353 | Database Management Systems | CMPE 231 | 4 | 1 | 4 | 6 |
| 3 | 25753 | CMPE 371 | Analysis of Algorithms | CMPE 231 | 4 | 1 | 4 | 6 |
| 4 | 25754 | CMPE 321 | Signals and Systems for Computer Engineers | CMPE 226 | 4 | 1 | 4 | 6 |
| 5 | 25755 | MATH 322 | Probability and Statistical Methods | MATH 151 | 3 | 1 | 3 | 5 |
| S.Tot =5 | | | | | Sem. Total | | 19 | 30 |
| | | | | | Sub- Total | | 91\|92 | 150 |

**Third Year: Spring Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 25761 | CMPE 318 | Principles of Programming Languages | CMPE 211 | 4 | 1 | 4 | 6 |
| 2 | 25762 | CMPE 344 | Computer Networks | CMPE 242 + MATH 322 | 4 | 1 | 4 | 6 |
| 3 | 25763 | CMPE 342 | Client/Server Programming | CMPE 231 | 4 | 1 | 4 | 7 |
| 4 | 25764 | CMPE 312 | Software Engineering | CMPE 211 | 4 | 1 | 4 | 7 |
| 5 | 25765 | UE- 02 | Uni. Elective II- Arts & Humanities | - | 3 | - | 3 | 4 |
| S.Tot =5 | | | | | Sem. Total | | 19 | 30 |
| | | | | | Sub- Total | | 110\|111 | 180 |

**Fourth Year: Fall Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| - | 25771 | CMPE 400 | Summer Practice | - | - | - | 0 | 1 |
| 1 | 25772 | CMPE 455 | Security of Computer Systems & Networks | CMPE 344 | 4 | 1 | 4 | 6 |
| 2 | 25773 | AE 01 | Area Elective I | - | 3\|4 | 1 | 3\|4 | 6 |
| 3 | 25774 | AE 02 | Area Elective II | - | 3\|4 | 1 | 3\|4 | 6 |
| 4 | 25775 | CMPE 471 | Automata Theory | MATH 163 | 4 | 1 | 4 | 6 |
| - | 25776 | CMPE 405 | Graduation Project I | - | 1 | - | 1 | 2 |
| 5 | 25777 | IENG 355 | Ethics in Engineering | - | 3 | - | 3 | 4 |
| S.Tot =5 | | | | | Sem. Total | | 18\|20 | 31 |
| | | | | | Sub- Total | | 128\|131 | 211 |

**Fourth Year: Spring Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 25781 | CMPE 420 | Embedded System Design | CMPE 224 | 4 | 1 | 4 | 7 |
| 2 | 25782 | AE 03 | Area Elective III | - | 3\|4 | 1 | 3\|4 | 6 |
| 3 | 25783 | UE-03 | Uni. Elective III- Arts & Humanities | - | 3 | - | 3 | 4 |
| 4 | 25784 | UE-04 | Uni. Elective IV (Restricted: ECON/MGMT/FIN/BANK/ACCT Fields) | - | 3 | - | 3 | 4 |
| 5 | 25785 | CMPE 406 | Graduation Project II | CMPE 405 | 3 | 1 | 3 | 8 |
| S.Tot =5 | | | | | Sem. Total | | 16\|17 | 29 |
| C.tot=40 | | | | | Sub- Total | | 144\|148 | 240 |

## UNDERGRADUATE CURRICULUM FOR SOFTWARE ENGINEERING

**First Year: Fall Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 29711 | CMSE 107 | Foundations of Computer Engineering | - | 4 | 1 | 4 | 10 |
| 2 | 29712 | MATH 163 | Discrete Mathematics | - | 3 | 1 | 3 | 5 |
| 3 | 29713 | ENGL 191 | Communication in English I | - | 3 | 1 | 3 | 4 |
| 4 | 29714 | MATH 151 | Calculus I | - | 4 | 1 | 4 | 6 |
| 5 | 29715 | PHYS 101 | Physics I | - | 4 | 1 | 4 | 6 |
| S.Tot =5 | | | | | Sem. Cr. Total : | | 18 | 31 |
| | | | | | Cr. Sub-Total : | | 18 | 31 |

**First Year: Spring Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| - | 29721 | CMSE 100 | Introduction to Software Engineering | - | - | 2 | - | 1 |
| 1 | 29722 | CMSE 112 | Programming Fundamentals | CMSE 107 | 4 | 1 | 4 | 10 |
| 2 | 29723 | ENGL 192 | Communication in English II | ENGL 191 | 3 | 1 | 3 | 4 |
| 3 | 29724 | MATH 152 | Calculus II | MATH 151 | 4 | 1 | 4 | 6 |
| 4 | 29725 | PHYS 102 | Physics II | - | 4 | 1 | 4 | 6 |
| 5 | 29726 | TUSL 181 | Turkish as a second Language (other Students) | - | 2 | - | 2 | 2 |
| | | HIST 280 | History of Turkish Reforms (TC/TRNC) | | | | | |
| S.Tot =5 | | | | | Sem. Cr. Total : | | 17 | 29 |
| | | | | | Cr. Sub-Total : | | 35 | 60 |

**Second Year: Fall Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 29731 | CMSE 201 | Fundamentals of Software Engineering | CMSE 107 | 4 | 1 | 4 | 8 |
| 2 | 29732 | CMSE 211 | Object-Oriented Programming | CMSE 112 | 4 | 1 | 4 | 7 |
| 3 | 29733 | CMSE 231 | Data Structures | CMSE 112 | 4 | 1 | 4 | 7 |
| 4 | 29734 | MATH 241 | Linear Algebra and Ordinary Diff. Equations | MATH 151 | 4 | 1 | 4 | 6 |
| 5 | 29735 | UE-01 | Basic Science (CHEM 101, BIOL 105, SCIE 130, etc.) | - | 3\|4 | - | 3\|4 | 4 |
| S.Tot =5 | | | | | Sem. Cr. Total : | | 19\|20 | 32 |
| | | | | | Cr. Sub-Total : | | 54\|55 | 92 |

**Second Year: Spring Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 29741 | CMSE 222 | Introduction to Computer Organization | MATH 163 | 4 | 1 | 4 | 8 |
| 2 | 29742 | CMSE 242 | Operating Systems | CMSE 112 | 4 | 1 | 4 | 7 |
| 3 | 29743 | MATH 373 | Numerical Analysis for Engineers | MATH 241 | 3 | 1 | 3 | 5 |
| 4 | 29744 | ENGL 201 | Communication Skills | ENGL 192 | 3 | 1 | 3 | 4 |
| 5 | 29745 | UE-02 | Uni. Elective II- Arts &Humanities | - | 3 | - | 3 | 4 |
| S.Tot =5 | | | | | Sem. Cr. Total : | | 17 | 28 |
| | | | | | Cr. Sub-Total : | | 71\|72 | 120 |

## UNDERGRADUATE CURRICULUM FOR SOFTWARE ENGINEERING (CONTINUED)

**Third Year: Fall Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 29751 | CMSE 321 | Software Req. Analysis & Specification | CMSE 201 | 4 | 1 | 4 | 7 |
| 2 | 29752 | CMSE 351 | Database Management Systems | CMSE 231 | 4 | 1 | 4 | 7 |
| 3 | 29753 | CMSE 371 | Analysis of Algorithm | CMSE 231 | 4 | 1 | 4 | 6 |
| 4 | 29754 | UE- 03 | Uni. Elective III- Arts &Humanities | - | 3 | - | 3 | 4 |
| 5 | 29755 | MATH 322 | Probability and Statistical Methods | MATH 151 | 3 | 1 | 3 | 5 |
| S.Tot =5 | | | | | Sem. Cr. Total : | | 18 | 30 |
| | | | | | Cr. Sub-Total : | | 89\|90 | 150 |

**Third Year: Spring Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 29761 | CMSE 322 | Software Design | CMSE 321 | 4 | 1 | 4 | 6 |
| 2 | 29762 | CMSE 318 | Principles of Programming Languages | CMSE 211 | 4 | 1 | 4 | 7 |
| 3 | 29763 | CMSE 344 | Computer Networks & Communication | CMSE 242 + MATH 322 | 4 | 1 | 4 | 7 |
| 4 | 29764 | IENG 355 | Ethics in Engineering | - | 3 | - | 3 | 4 |
| 5 | 29765 | CMSE 326 | Software Quality Assurance & Testing | CMSE 201 | 4 | 1 | 4 | 6 |
| S.Tot =5 | | | | | Sem. Cr. Total : | | 19 | 30 |
| | | | | | Cr. Sub-Total : | | 108\|109 | 180 |

**Fourth Year: Fall Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| - | 29771 | CMSE 400 | Summer Practice | - | - | - | 0 | 1 |
| - | 29772 | CMSE 405 | Graduation Project I | - | 1 | - | 1 | 1 |
| 1 | 29773 | CMSE 471 | Automata Theory | MATH 163 | 4 | 1 | 4 | 6 |
| 2 | 29774 | CMSE 473 | Software Process & Management | CMSE 321 + MATH 322 | 4 | 1 | 4 | 6 |
| 3 | 29775 | CMSE 423 | Embedded System Design | CMSE 222 | 4 | 1 | 4 | 6 |
| 4 | 29776 | AE 01 | Area Elective I | - | 3\|4 | - | 3\|4 | 6 |
| 5 | 29777 | AE 02 | Area Elective II | - | 3\|4 | - | 3\|4 | 6 |
| S.Tot =5 | | | | | Sem. Cr. Total : | | 19\|21 | 32 |
| | | | | | Cr. Sub-Total : | | 127\|130 | 212 |

**Fourth Year: Spring Semester**

| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
|---|---|---|---|---|---|---|---|---|
| 1 | 29781 | AE 03 | Area Elective III | - | 3\|4 | - | 3\|4 | 6 |
| 2 | 29782 | AE 04 | Area Elective IV | - | 3\|4 | - | 3\|4 | 6 |
| 3 | 29783 | CMSE 406 | Graduation Project II | CMSE 405 | 3 | 1 | 3 | 6 |
| 4 | 29784 | UE- 04 | Uni. Elective IV (Restricted: ECON/MGMT/FIN/BANK/ACCT Fields) | - | 3 | - | 3 | 4 |
| 5 | 29785 | CMSE 456 | Security of Computer Systems & Networks | CMSE 344 | 4 | 1 | 4 | 6 |
| S.Tot =5 | | | | | Sem. Cr. Total : | | 16\|18 | 28 |
| C.Tot=40 | | | | | Cr. Sub-Total : | | 143\|148 | 240 |

## UNDERGRADUATE CURRICULUM FOR ARTIFICIAL INTELLIGENCE ENGINEERING

| First Year: Fall Semester | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 2L711 | AING 107 | Programming Fundamentals I | - | 4 | 1 | 4 | 8 |
| 2 | 2L712 | MATH 163 | Discrete Mathematics | - | 3 | 1 | 3 | 5 |
| 3 | 2L713 | ENGL 191 | Communication in English - I | - | 3 | 1 | 3 | 4 |
| 4 | 2L714 | MATH 151 | Calculus I | - | 4 | 1 | 4 | 7 |
| 5 | 2L715 | PHYS 101 | Physics I | - | 4 | 1 | 4 | 7 |
| S.Tot =5 | | | | | Sem. Total | | 18 | 31 |
| | | | | | Sub-Total | | 18 | 31 |
| **First Year: Spring Semester** | | | | | | | | |
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| | 2L721 | AING 100 | Introduction to Artificial Intelligence | - | - | 2 | 0 | 1 |
| 1 | 2L722 | AING 112 | Programming Fundamentals II | AING 107 | 4 | 1 | 4 | 8 |
| 2 | 2L723 | ENGL 192 | Communication in English - II | ENGL 191 | 3 | 1 | 3 | 4 |
| 3 | 2L724 | MATH 152 | Calculus II | MATH 151 | 4 | 1 | 4 | 7 |
| 4 | 2L725 | PHYS 102 | Physics II | - | 4 | 1 | 4 | 7 |
| 5 | 2L726 | TUSL 181 | Turkish as a Second Language (other Students) | - | 2 | - | 2 | 2 |
| | | HIST 280 | History of Turkish Reforms (TC/TRNC) | | | | | |
| S.Tot =5 | | | | | Sem. Total | | 17 | 29 |
| | | | | | Sub-Total | | 35 | 60 |
| **Second Year: Fall Semester** | | | | | | | | |
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 2L731 | AING 201 | Fundamentals of Artificial Intelligence | AING 107 | 4 | 1 | 4 | 6 |
| 2 | 2L732 | AING 231 | Data Structures | AING 112 | 4 | 1 | 4 | 7 |
| 3 | 2L733 | AING 211 | Object-Oriented Programming | AING 112 | 4 | 1 | 4 | 6 |
| 4 | 2L734 | UE 01 | Basic Science | - | 3\|4 | - | 3\|4 | 4 |
| 5 | 2L735 | MATH 241 | Linear Algebra and Ordinary Diff. Equations | MATH 151 | 4 | 1 | 4 | 6 |
| S.Tot =5 | | | | | Sem. Total | | 19/20 | 29 |
| | | | | | Sub-Total | | 54/55 | 89 |
| **Second Year: Spring Semester** | | | | | | | | |
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 2L741 | AING 222 | Introduction to Computer Organization | MATH 163 | 4 | 1 | 4 | 7 |
| 2 | 2L742 | AING 242 | Operating Systems | CMPE 112 | 4 | 1 | 4 | 6 |
| 3 | 2L743 | AING 216 | Basic Search Strategies | AING 201 | 4 | 1 | 4 | 6 |
| 4 | 2L744 | AING 214 | Advanced Programming Techniques for Artificial Intelligence | AING 211 | 4 | 1 | 4 | 7 |
| 5 | 2L745 | MATH 322 | Probability and Statistical Methods | MATH 151 | 4 | 1 | 4 | 5 |
| S.Tot =5 | | | | | Sem. Total | | 20 | 31 |
| | | | | | Sub-Total | | 74/75 | 120 |

## UNDERGRADUATE CURRICULUM FOR ARTIFICIAL INTELLIGENCE ENGINEERING (CONTINUED)

| **Third Year: Fall Semester** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tu r | Cr. | ECTS |
| 1 | 2L751 | AING 353 | Database Management Systems | AING 231 | 4 | 1 | 4 | 6 |
| 2 | 2L752 | AING 371 | Analysis of Algorithms | AING 231 | 4 | 1 | 4 | 6 |
| 3 | 2L753 | AING 327 | Data Science | AING 214 | 4 | 1 | 4 | 7 |
| 4 | 2L754 | AING 355 | Knowledge Representation & Reasoning | AING 201 | 4 | 1 | 4 | 6 |
| 5 | 2L755 | UE - 02 | Uni. Elective - II (Arts & Humanities) | - | 3 | - | 3 | 4 |
| S.Tot =5 | | | | | Sem. Total | | 19 | 29 |
| | | | | | Sub-Total | | 93/94 | 149 |
| **Third Year: Spring Semester** | | | | | | | | |
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tu r | Cr. | ECTS |
| 1 | 2L761 | AING 312 | Software Engineering | AING 211 | 4 | 1 | 4 | 7 |
| 2 | 2L762 | ENGL 201 | Communication Skills | ENGL 192 | 4 | 1 | 4 | 4 |
| 3 | 2L763 | AING 364 | Large Scale Computing and Big Data | AING 353 | 4 | 1 | 4 | 8 |
| 4 | 2L764 | AING 356 | Machine Learning | AING 327 | 4 | 1 | 4 | 8 |
| 5 | 2L765 | UE-03 | Uni. Elective III - Arts & Humanities | - | 3 | - | 3 | 4 |
| S.Tot =5 | | | | | Sem. Total | | 19 | 31 |
| | | | | | Sub-Total | | 112/113 | 180 |
| **Fourth Year: Fall Semester** | | | | | | | | |
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tu r | Cr. | ECTS |
| - | 2L771 | AING 400 | Summer Practice | - | - | - | 0 | 1 |
| - | 2L772 | AING 405 | Graduation Project I | - | - | - | 1 | 1 |
| 1 | 2L773 | AING 421 | Deep Learning | AING 356 | 4 | 1 | 4 | 6 |
| 2 | 2L774 | AING 425 | Fundamentals of Computer Vision | MATH 152 | 4 | 1 | 4 | 7 |
| 3 | 2L775 | AE 01 | Area Elective I | - | 3\|4 | 1 | 3\|4 | 6 |
| 4 | 2L776 | AE 02 | Area Elective II | - | 3\|4 | 1 | 3\|4 | 6 |
| 5 | 2L777 | UE-04 | Uni. Elective IV - Arts & Humanities (ECON/MGMT/FIN/ACCT Fields) | - | 3\|4 | - | 3\|4 | 4 |
| S.Tot =5 | | | | | Sem. Total | | 18/21 | 31 |
| | | | | | Sub-Total | | 130/134 | 211 |
| **Fourth Year: Spring Semester** | | | | | | | | |
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tu r | Cr. | ECTS |
| 1 | 2L781 | AING 406 | Graduation Project II | CMPE 405 | 3 | 1 | 4 | 7 |
| 2 | 2L782 | AING 426 | Natural Language Processing | AING 327 | 4 | 1 | 4 | 6 |
| 3 | 2L783 | AE 03 | Area Elective III | AING 211 | 4 | 1 | 4 | 6 |
| 4 | 2L784 | AE 04 | Area Elective IV | - | 3\|4 | 1 | 3\|4 | 6 |
| 5 | 2L785 | IENG 355 | Ethics in Engineering | - | 3 | - | 3 | 4 |
| S.Tot =5 | | | | | Sem. Total | | 18/19 | 29 |
| C.tot=40 | | | | | Sub- Total | | 148/153 | 240 |

## ELECTIVE COURSES

### A. Non-technical Electives

Non-technical electives approved by the department are announced at the beginning of each semester. Students can choose any of those courses announced as a non-technical elective.

### B. Area Electives

Area elective courses offered by the Computer Engineering Department are announced by the Department at the beginning of each semester. A list of area elective courses is given below. The Department may add further courses to this list. In addition to these courses, at the beginning of each semester, the Department will list courses offered by other Engineering Faculty Departments that may be chosen as area electives. Registration to such courses will require Departmental consent.

| Course Code | Course Name | Credit | Prerequisite |
|---|---|---|---|
| CMPE/CMSE 413 | Compiler Construction | (4, 1) 4 | MATH 163 |
| CMPE/CMSE 414 | Modern Programming Platforms | (4, 1) 4 | CMPE 211 |
| CMPE/CMSE 415 | Visual Programming | (4, 1) 4 | CMPE 231 |
| CMPE/CMSE 416 | Object-Oriented Programming and Graphical User Interfaces | (4, 1) 4 | CMPE 211 |
| CMPE/CMSE 417 | Advanced Topics in C | (4, 1) 4 | CMPE 211 |
| CMPE/CMSE 418 | Internet Programming | (4, 1) 4 | CMPE 353 |
| CMPE/CMSE 419 | Mobile Application Development | (4, 1) 4 | CMPE 211 |
| CMPE/CMSE 421 | Parallel Computer Architecture | (4, 1) 4 | CMPE 325 |
| CMPE/CMSE 422 | Microprocessor Systems | (4, 1) 4 | CMPE 224 |
| CMPE/CMSE 423 | Low End Embedded Systems | (4, 1) 4 | CMPE 224 |
| CMPE/CMSE 424 | Introduction to Image Processing | (4, 1) 4 | MATH 152 |
| CMPE/CMSE 426 | Digital Signal Processing | (4, 1) 4 | CMPE 321 |
| CMPE/CMSE 427 | Hardware Realization of Algorithms | (4, 1) 4 | CMPE 224 |
| CMPE/CMSE 428 | Data Science | (4, 1) 4 | MATH 322 |
| CMPE/CMSE 429 | Deep Learning | (4, 1) 4 | MATH 241 |
| CMPE/CMSE 443 | Real-time System Design | (4, 1) 4 | CMPE 242 |
| CMPE/CMSE 444 | Data Communications | (4, 1) 4 | CMPE 344 |
| CMPE/CMSE 445 | Internet Architecture and Protocols | (4, 1) 4 | CMPE 344 |
| CMPE/CMSE 446 | Networked computing | (4, 1) 4 | CMPE 344 |
| CMPE/CMSE 447 | Fiber Optic Computer Communication | (4, 1) 4 | CMPE 321 |
| CMPE/CMSE 448 | Modern Networking Concepts | (4, 1) 4 | CMPE 344 |
| CMPE/CMSE 449 | Distributed Systems | (4, 1) 4 | CMPE 242 |
| CMPE/CMSE 451 | Information Security | (4, 1) 4 | CMPE 353 |
| CMPE/CMSE 461 | Artificial Intelligence | (4, 1) 4 | CMPE 211 |
| CMPE/CMSE 462 | Functional and Logic Programming | (4, 1) 4 | CMPE 211 |
| CMSE 439 | Human/Computer Interaction | (4, 1) 4 | - |
| CMSE 491 | Selected Topics in Software Engineering | (4, 1) 4 | - |
| CMSE 492 | Selected Topics in Software Engineering | (4, 1) 4 | - |
| AING421 | Fundamentals of Computer Vision | (4, 1) 4 | |
| AING422 | Health Informatics | (4, 1) 4 | |
| AING431 | Time Series Data Analysis | (4, 1) 4 | |
| AING432 | Agent-Based Modeling | (4, 1) 4 | |
| AING435 | Expert Systems | (4, 1) 4 | |
| AING436 | Natural Language Processing | (4, 1) 4 | |
| AING451 | Neural Computation | (4, 1) 4 | |
| AING452 | Introduction to Information Retrieval | (4, 1) 4 | |

| | | | |
|---|---|---|---|
| AING453 | Text mining | (4, 1) 4 | |
| AING454 | Artificial Intelligence Applications for Security | (4, 1) 4 | |
| AING455 | Fundamentals of Data Mining | (4, 1) 4 | |
| AING456 | Big Data Analytics | (4, 1) 4 | |
| AING487 | Semantic Web Technologies and Applications | (4, 1) 4 | |
| AING491 | Special Topics in Artificial Intelligence | (4, 1) 4 | |

For course descriptions, please check the Computer Engineering Department's Web site.

## LABORATORIES

**General Computer Laboratory I**

The first general laboratory is equipped with 50 Intel Core i7 16GB RAM computers. The laboratory may be used according to the requirements of students for their courses and projects.

**General Computer Laboratory II**

The second general laboratory is equipped with 25 computers. The laboratory may be used according to the student's requirements for their courses and projects.

**UNIX Laboratories**

In Unix Lab1, there are 25 computers that have Dual Core PC's, Windows 7 operating system and a direct connection to a Fedora server. In Unix Lab 2, there are 25 computers that have Intel Core i7 16 GB RAM.

**Computer Research Laboratory**

This laboratory provides general-purpose research facilities under various software platforms for graduate students. This laboratory is used for projects and research studies of 4$^{th}$ year students as well. There are 16 Dual Core PC's in this lab.

**Electric and Electronics Laboratory**

This laboratory provides facilities for performing experiments on electrical circuits and basic electronics. It includes voltmeters, amperemeters, signal generators, power supplies, oscilloscopes and relevant discrete components.

**Logic Design Laboratory**

Intended for teaching the fundamentals of combinatorial and sequential logic circuits. Lab equipment includes construction boards with power supplies, clock generators, LED displays, IC's and 40 Intel Core i3 computers.

**Multimedia Laboratory**

Intended for teaching technical elective courses. There are 40 i5 16GB RAM computers in this lab.

**Mac Laboratory**

There are 25 iMac (OS X operating system) computers and 10 IPAD tablets are located in this lab.

**Artificial Intelligence Laboratory**

The Artificial Intelligence Laboratory was established to support experimental and applied studies in artificial intelligence, machine learning, and deep learning that require high computational power, and is used by undergraduate and graduate students for projects, research, and GPU-intensive computations. The laboratory is equipped with high-performance computers featuring Intel i9-14900K processors, 64 GB DDR5 RAM, 2 TB NVMe SSD storage, and NVIDIA RTX 4090 24 GB graphics cards, along with liquid cooling and high-capacity power supplies, providing suitable infrastructure for AI model training, data analysis, and advanced computational applications.

# REGISTRATION PROCESS

## Academic Advisor

Each student is assigned an Academic Advisor who assists the student with matters related to course selection, registration, and scheduling. The advisor plays a key role in the student's progress through university studies, but it is ultimately the student's responsibility to meet all University requirements, and it is the responsibility of the Office of the Registrar to ascertain and certify that these requirements have been met.

Students must obtain their advisors' approval for registration, selection of core and elective courses, and for adding, dropping, or withdrawing courses.

## Registration Procedure

### A) Course Registration Procedure

Please, first get access for course registration with your 'ID card' and 'bank receipt' by visiting:

- Registrar's Office
- Accounting Office

Then go to your academic advisor at your department to complete your registration.

Important Notes:

- Course registration is complete when you see your advisor face-to-face and he/she confirms your registration on the computer.
- Students who do not obtain access cannot complete their registration.
- You can learn the tuition fee or any debts that needs to be settled from https://students.emu.edu.tr
- Students must register for courses in person. Please do not ask your friend(s) to do it for you. It will not be accepted.
- Students who complete their registration after course registration period, should pay penalty per day even if they did pay their tuition fees earlier.
- In case of problems, please go directly to the Registrar's Office.

### B) Online Course Registration Procedure

Access to online registration: (https://students.emu.edu.tr)
First pay your tuition and fees, then log on to this web site and choose your courses online. Then, get confirmation from your advisor regarding your course selection.

Your course registration will be completed when your advisor confirms your courses. You will need to see your advisor face to face before the last date that will be announced to get the final approval for your course registration. Students who do not get approval from their advisor until the specified date will have to pay late registration penalty on a per day basis.

Important Notes:

- Students who do not get access cannot register online.
- Access is opened automatically in 24 - 48 hours following the payment to the bank.
- You can learn your tuition fee or any debts at https://students.emu.edu.tr.
- Freshman undergraduate students CANNOT register online. These students must first visit the registration/accounting offices and then meet the academic staff in the department who are responsible for registration of freshmen.
- Master/PhD students and first semester CANNOT register online. These students must fill-out the form in appendix A and then meet the academic staff in the department who are responsible for registration of Master/PhD students.

**Late Registration**

Students who have not completed formal registration processes during the scheduled period may be permitted to register late with a late registration penalty, if the delay has been involuntary.

**Registration Changes**

*a) Adding Courses*

With the approval of their Academic Advisor and the Chairman of the Department, students may request addition of courses to their schedule during the first two weeks of classes in a regular term. Such requests will be granted if:

1) The maximum allowable student course load is not exceeded;
2) Added courses can be scheduled properly.

*b) Dropping Courses*

With the approval of his/her Academic Advisor and the Chairman of the Department, a student may drop courses from his/her schedule during the first two weeks of classes in a regular term.

*c) Withdrawing from a Course*

Course withdrawal may take place no later than the deadline announced in the academic calendar, with the approval of the Academic Advisor and the Chairman of the Department. A student who withdraws from a course will receive a "W" grade on his/her transcript. Such courses must be registered again in the following semester.

NOTE: Depending on the different conditions, a course-group may be altered (schedule/instructor) or removed or added to the semester's program. The department tries to minimize these alterations. Please check your portal frequently in the first two weeks to be aware of those changes.

## TRANSFERS

**Transfer from another Academic Institution**

A student who has completed at least one academic semester of an equivalent program at another university may apply for transfer to the Computer Engineering Department. Such an application will be considered provided the applicant:

a) has not been dismissed from that institution, either on academic or any other grounds,
b) has an adequate knowledge of English, and
c) the quota for transfer students has not been exceeded.

A transfer student may be exempted from certain courses. Decisions concerning exemption will be made by the Transfer Committee of the Department, only once, after the application of the student.

**Transfer within the University**

Transfer from another four-year degree program of EMU to Computer Engineering may be permitted, if the student has successfully completed at least one term of study in a department (English Preparatory School is not counted) and if the quota for transfer students has not been exceeded. Students who have already made one internal transfer before or students who have an academic warning are not eligible for another transfer application.

A two-year diploma program student who graduates with a high cumulative grade-point average may apply for transfer to the first year of the Computer Engineering four-year degree program.

## COURSE-LOAD AND ASSESSMENT

### The Academic Year

Academic activities take place in an “Academic Year”, from the end of September to the end of June, consisting of two periods of at least 16 weeks each, possibly followed by a “Summer Session”. The two periods of study are referred to as the “Fall” and “Spring” semesters. There is a two to three weeks of break between the two semesters. Summer sessions are offered in July and August.

### The Academic Term

The current academic term of a student is determined by the cumulative credited courses he/she registered to during his/her whole period of studies at EMU. The total course load is distributed over eight academic terms (four academic years).

### Courses

Courses consist of two to four hours of instruction and, where appropriate, tutorial and laboratory work, for each week of the Fall or Spring semester or the equivalent total number of hours per week in a Summer session.

### The Credit-Hour

Courses offered for academic credit are described in terms of a number that is proportional to the academic involvement they require from the student. This number is called the “Credit-Hour.”

For each course, one credit hour is equivalent to one lecture hour per week. Any additional hour that may be required for preparation outside the class, or any additional hour required for laboratory or tutorial work is considered to be equivalent to one-half of a credit-hour.

A course consisting of both lecture and laboratory/tutorial sessions, meeting for 3 lecture hours and 2 laboratory/tutorial hours per week would be assigned 4 credit-hours. It would receive a credit rating of “(3,2) 4,” where the first digit indicates the weekly lecture hours, the second digit the weekly laboratory/tutorial hours, and the last, the credit-hours associated with the course.

### Prerequisite Courses

Prerequisite course requirements are given in parentheses in each course description, if applicable. They are also shown in the tabular undergraduate curriculum. When course A is a prerequisite to course B, a student cannot register to course B before obtaining at least a D- grade from course A.

### Course Load

For every semester, the number of specified credit courses of a registered program makes up the semester course load. Non-credit courses are not taken into account in the computation of the course load. However, upon the recommendation of the student advisor and the approval of the Department Chair or School Director:

1. a maximum of two courses can be reduced from the normal course load of a semester. In this case, the student must register for the untaken courses at the first semester the courses are being offered.
2. in accordance with the standard course load of the relevant semester and the academic achievement status of the student, semester course load can be increased by two courses at most. In order to do this, the students must hold a Cumulative Grade Point Average (CGPA) minimum of 2.00.
    a. the student who holds a minimum of 2.00 CGPA, however is not within the “High Honour” student category as of the end of the previous academic semester, can only increase their semester course load by one course at most.
    b. the student who is listed within the “High Honour” category as of the end of the previous academic semester, may increase the course load of that semester by two courses.

High Honour students may receive only one of their courses free-of-charge. Students make additional payments based on the per-credit fees to be applied for the summer semester at the end of the respective academic year, in addition to the tuition fee they are obligated to pay for each extra course they take during that semester.

3. The course load of students who do not have any Academic Warnings and who are in the graduation semester can be increased by three courses for students enrolled in Faculty of Law undergraduate and in School of Justice associate degree programs and, by two courses for students who are enrolled in the other programs. In addition to the normal courses to be taken during the final semester of the education program, the student with the graduation status can increase their course load by a maximum of 3 for those whose undergraduate program curriculum consists of 60 courses and associate degree program curriculum with over 30. Other students enrolled in different programs who have maximum of two courses left and who take these courses successfully, are to obtain the right to graduate. When determining the course load, non-credit courses and credit courses that have been accepted by the Senate as not being considered as normal load are not taken into account.

**Course Grades and Grade-Points**

Thirteen categories of scholastic achievement, ranging from "superior" to "failure" (A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, NG), are recognized as valid end-of-course grades or letter grades. These grades are indexed on a scale of "0 to 4", termed "Grade-Points". The symbol "NG" (Nil Grade) indicates poor attendance and/or a failure to complete assigned work (including exams).

The letter grades are indexed to Grade-Point equivalents as follows: A=4.0; A-=3.7; B+=3.3; B=3.0; B-=2.7; C+=2.3; C=2.0; C-=1.7; D+=1.3; D=1.0; D-=0.7; F=0.0; NG=0.0.

Four other symbols are also used in grading, for special circumstances. "W" (withdrawn), indicates withdrawal from a course before the end of a term. In case a student has been authorized to delay completion of course work past the normal end-of-term, the "I" (incomplete) grade may be given until a formal grade is reported. Achievement in a non-credit-hour course is indicated by the symbol "S" (satisfactory) or "U" (unsatisfactory). In the case of repeated course work, the last grade earned is considered the official course grade. No grade-point equivalent is assigned for the notations I, W, S, and U.

**Credits Earned**

A student earns credits based on the level of his/her achievement in a course. The credits earned are the product obtained by multiplication of the "Credit-Hour" and the "Grade-Point" obtained. For example, if a student gets grade A- for a 4-credit course, then the credits earned for that course is 4*3.7=14.8.

**Grade-Point Average: GPA**

A student's academic achievement for each semester is expressed numerically by a real number referred to as the "Grade Point Average" (GPA). The GPA is obtained by:

1. calculating credits earned for each course,
2. adding these earned credits for all courses in the semester to obtain the total credits, and
3. dividing the total credits by the total credit-hours registered in that semester.

The GPA can range from 0.00 to a maximum number of 4.00. A student's GPA is calculated and reported to two decimal places.

**Cumulative Grade Point Average: CGPA**

A student's overall academic achievement is expressed by a real number called the "Cumulative Grade Point Average" (CGPA). The CGPA is obtained by:

1. adding the credits earned in each completed semester to find the total credits earned,
2. adding credit-hours registered in all completed semester to find the total credit-hours registered, and
3. dividing the total credits earned by the total credit-hours attempted.

When a course is repeated, the last credit earned is substituted in place of the previous value.

**Example:**

Assume that a student is registered to the following courses and got the following grades.

**Semester I:**

| Course | Grade | Credit |
|---|---|---|
| CMPE 101 | B- | (3) |
| MATH 163 | D- | (3) |
| ENGL 191 | D | (3) |
| MATH 151 | C | (4) |
| PHYS 101 | F | (4) |
| | + | 17 |

Credits earned = 3*2.7+3*0.7+3*1+4*2+4*0
= 21.2

GPA = 21.2 / 17 = 1.25
CGPA = 21.2 / 17 = 1.25

**Semester II:**

| Course | Grade | Credit | |
|---|---|---|---|
| MATH 163 | B+ | (3) | (repeat) |
| CMPE 102 | B | (3) | |
| ENGL 192 | D | (3) | |
| MATH 152 | C+ | (4) | |
| PHYS 101 | D | (4) | (repeat) |
| | + | 17 | |

Total of new credits = 10

Credits earned = 3*3.3+3*3+3*1+4*2.3+4*1
= 35.1

GPA = 35.1 / 17 = 2.06

Total credits registered = 17+10 = 27
(excluding repeated MATH163 and PHYS 101)
Total credits earned = 35.1 + 19.1 = 54.2
(excluding 2.1 in Semester I for the D- of MATH163)

CGPA = Total credits earned / total credits registered
= 54.2 / 27 = 2.01

## ACADEMIC EVALUATION

**Evaluation of a Course**

A course is said to have been successfully completed if a student, obtains a grade of A, A-, B+, B, B-, C+, C, C-, D+, D or S. A course in which a student receives a grade of D-, F, NG or U is not satisfactorily completed, and the student is required to repeat such a course in the next semester it is offered.

### Satisfactory/Probation/Unsatisfactory Status

Satisfactory/On-Probation/Unsatisfactory Status of students is based on the following table:

| Actual Academic Term | Satisfactory (S) | Satisfactory Progress (Y) | On Probation (P) | Unsatisfactory (U) | Compulsory Transfer/DISMISS (C) |
|---|---|---|---|---|---|
| **2** | 4.00≥CGPA≥2.00 | 2.00>CGPA≥1.50 | 1.50>CGPA≥1.00 | 1.00>CGPA≥0.00 | ----- |
| **3** | 4.00≥CGPA≥2.00 | 2.00>CGPA≥1.50 | 1.50>CGPA≥1.00 | 1.00>CGPA≥0.00 | ----- |
| **4** | 4.00≥CGPA≥2.00 | 2.00>CGPA≥1.50 | 1.50>CGPA≥1.00 | 1.00>CGPA≥0.00 | 1.00>CGPA≥0.00 |
| **5** | 4.00≥CGPA≥2.00 | 2.00>CGPA≥1.80 | 1.80>CGPA≥1.50 | 1.50>CGPA≥0.00 | 1.00>CGPA≥0.00 |
| **6** | 4.00≥CGPA≥2.00 | 2.00>CGPA≥1.80 | 1.80>CGPA≥1.50 | 1.50>CGPA≥0.00 | 1.00>CGPA≥0.00 |
| **7** | 4.00≥CGPA≥2.00 | 2.00>CGPA≥1.80 | 1.80>CGPA≥1.50 | 1.50>CGPA≥0.00 | 1.00>CGPA≥0.00 |
| **≥8** | 4.00≥CGPA≥2.00 | ----- | 2.00>CGPA≥1.80 | 1.80>CGPA≥0.00 | 1.00>CGPA≥0.00 |

### Meaning of Terms

- **Actual Academic Term** refers to the number of semesters that a student has registered so far (English Preparatory School and summer semesters are not counted).
- **On Probation status**: Student can register to a maximum of two new courses.
- **Unsatisfactory status**: Student cannot register to any new course, must repeat previously taken courses.
- **Compulsory Transfer/DISMISS**: Students who completed a minimum of 4 academic semesters (if the fourth semester is Spring Semester, then at the end of the Summer School) and who have a **CGPA below 1.00** are dismissed from the program. In the case of Compulsory Transfer/DISMISS, the student may transfer to another faculty (with the same tuition fees) or may continue his education in the same program with new student registration fees.
- **Academic Term**: The current academic term of a student is determined by the cumulative credited courses he/she registered to during his/her whole period of studies at EMU. The total course load is distributed over eight academic terms (four academic years). In other words, the semester of a student is determined by the number of courses taken so far.
- **First Academic Warning** Student may register for a maximum of two new courses.
- The students with **Second, Third, ... Academic Warning** cannot register for any new course.
- The students with **Fourth Academic Warning** are dismissed from the program. In this case, the student may transfer to another faculty (with the same tuition fees) or may continue his education in the same program with new student registration fees.
- Students who originally registered before 2007-2008 should note that Academic Warning and dismiss rules are different for them.

### Honor and High Honor Students

If the student has taken normal course load, if she/he obtains a GPA between 3.00 and 3.49, he/she is designated an “Honor Student”. A student who obtains a GPA between 3.50 and 4.00 is designated a “High Honor Student”.

### Graduation

A student is entitled to graduate if he/she:

1. Satisfactorily completes all the required course work (40 courses with credits, and other compulsory courses),
2. Completes the 40-day summer training, and
3. Attains a CGPA of at least 2.00.

If at the time of his/her graduation a student has achieved a CGPA of 3.00 or higher, this will be indicated on his/her graduation Diploma/Certificate and official transcript as follows: students with a CGPA in the range 3.00-3.49 “Honors”; students with a CGPA in the range 3.50-4.00 “High Honors”.

Graduation is conferred by the University Senate upon the request of Faculties and Schools. The Diplomas/Certificates are prepared by the Office of the Registrar, and describe the name of the program, the date of graduation, and the degree or title obtained.

## DOUBLE-MAJOR PROGRAMS: REGISTRATION, ADMISSION AND APPLICATION

### Who can apply

In order to be eligible to apply for the double-major program, students

- should already be registered at least for a semester in one of the departments that runs the double-major program and should renew his/her registration during the period of application to the double-major program.
- can apply for the double-major program earliest at the beginning of the third semester of the first major program.
- should obtain minimum grade of 'D' for all credit courses in the first major program up to the period of application.
- should hold a minimum CGPA of 3.00.
- **should apply until the beginning of the 5$^{th}$ semester at the latest.**

A student can apply for more than one double-major program. However, students cannot register for more than one double-major program or a double-major and a double minor program at the same time.

### Application process

1. Applications for double-major programs take place until the last day of the academic semester registration period following the announcement of the double-major programs. Applications are processed by the Registrar's Office after the submission of an application form and a transcript.
2. The registrar's office sends all applications to the department of the first major program on the first working day following the registration deadline.
3. The double-major program committee reviews applicants' documents and academic reference letters, if available, and determines whether the candidates will be admitted to double-major programs based on the set quota and whether applicants who have gained admission will be exempted from specific courses. The committee then submits the decision in writing to the department head of the first major program who will ask for relevant departments' and faculties' approval.
4. Students who have gained admission for the double-major program must register for the double-major program during the add-drop period of the relevant academic semester.

| Additional Courses for CMSE – CMPE Double Major Program | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 29731 | CMSE201 | Fundamentals of Software Engineering | CMPE/CMSE107 | 4 | 1 | 4 | 8 |
| 2 | 29765 | CMSE326 | Software Quality Assurance and Testing | CMSE201 | 4 | 1 | 4 | 6 |
| 3 | 29751 | CMSE321 | Software Requirement Analysis & Specification | CMSE201 | 4 | 1 | 4 | 7 |
| 4 | 29761 | CMSE322 | Software Design | CMSE321 | 4 | 1 | 4 | 6 |
| 5 | 29774 | CMSE473 | Software Process and Management | CMPE/CMSE231 + MATH322 | 4 | 1 | 4 | 6 |
| 6 | 29776 | AE01 | Area Elective I | | 4 | 1 | 4 | 6 |
| 7 | 29777 | AE02 | Area Elective II | | 4 | 1 | 4 | 6 |
| 8 | 29781 | AE03 | Area Elective III | | 4 | 1 | 4 | 6 |
| 9 | 29782 | AE04 | Area Elective IV | | 4 | 1 | 4 | 6 |
| | | | | | Total Credits / ECTS | | 36 | 57 |

| Additional Courses for AING – CMPE Double Major Program | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 2L731 | AING201 | Fundamentals of Artificial Intelligence | CMPE/AING107 | 4 | 1 | 4 | 6 |
| 2 | 2L744 | AING214 | Programming Languages for Artificial Intelligence | CMPE/AING211 | 4 | 1 | 4 | 7 |
| 3 | 2L743 | AING 216 | Basic Search Strategies | AING 201 | 4 | 1 | 4 | 6 |
| 4 | 2L753 | AING 327 | Data Science | AING 214 | 4 | 1 | 4 | 7 |
| 5 | 2L754 | AING 355 | Knowledge Representation & Reasoning | AING 201 | 4 | 1 | 4 | 6 |
| 6 | 2L763 | AING 364 | Large Scale Computing and Big Data | AING 353 | 4 | 1 | 4 | 8 |
| 7 | 2L762 | AING 355 | Knowledge Representation & Reasoning | AING 201 | 4 | 1 | 4 | 6 |
| 8 | 2L764 | AING 356 | Machine Learning | AING 327 | 4 | 1 | 4 | 8 |
| 9 | 2L784 | AE05 | Area Elective IV | | 4 | 1 | 4 | 6 |
| | | | | | Total Credits / ECTS | | 36 | 60 |

| Additional Courses for CMPE – CMSE Double Major Program | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 25741 | CMPE224 | Digital Logic Systems | CMPE223/ AING222 | 4 | 1 | 4 | 7 |
| 2 | 25742 | CMPE226 | Electronics for Computer Engineering | MATH241 | 4 | 1 | 4 | 6 |
| 3 | 25751 | CMPE325 | Computer Architecture and Organization | CMPE224 | 4 | 1 | 4 | 7 |
| 4 | 25754 | CMPE321 | Signals & Systems for Computer Engineers | CMPE226 | 4 | 1 | 4 | 6 |
| 5 | 25763 | CMPE342 | Client/Server programming | CMPE231 | 4 | 1 | 4 | 7 |
| 6 | 25773 | AE 01 | Area Elective I | CMPE223 AING222 | 4 | 1 | 4 | 6 |
| 7 | 25774 | AE02 | Area Elective II | MATH241 | 4 | 1 | 4 | 6 |
| 8 | 25782 | AE03 | Area Elective III | CMPE224 | 4 | 1 | 4 | 6 |
| 9 | | AE05 | Area Elective V | CMPE226 | 4 | 1 | 4 | 6 |
| | | | | | Total Credits / ECTS | | 36 | 51 |

| Additional Courses for AING- CMSE Double Major Program | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 2L731 | AING201 | Fundamentals of Artificial Intelligence | CMPE/AING107 | 4 | 1 | 4 | 6 |
| 2 | 2L744 | AING214 | Programming Languages for Artificial Intelligence | CMPE/AING211 | 4 | 1 | 4 | 7 |
| 3 | 2L743 | AING 216 | Basic Search Strategies | AING 201 | 4 | 1 | 4 | 6 |
| 4 | 2L753 | AING 327 | Data Science | AING 214 | 4 | 1 | 4 | 7 |
| 5 | 2L754 | AING 355 | Knowledge Representation & Reasoning | AING 201 | 4 | 1 | 4 | 6 |
| 6 | 2L763 | AING 364 | Large Scale Computing and Big Data | AING 353 | 4 | 1 | 4 | 8 |
| 7 | 2L762 | AING 355 | Knowledge Representation & Reasoning | AING 201 | 4 | 1 | 4 | 6 |
| 8 | 2L764 | AING 356 | Machine Learning | AING 327 | 4 | 1 | 4 | 8 |
| 9 | 2L784 | AE05 | Area Elective IV | | 4 | 1 | 4 | 6 |
| | | | | | Total Credits / ECTS | | 36 | 60 |

| Additional Courses for CMPE- AING Double Major Program | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 25741 | CMPE224 | Digital Logic Systems | CMPE223/AING222 | 4 | 1 | 4 | 7 |
| 2 | 25742 | CMPE226 | Electronics for Computer Engineering | MATH241 | 4 | 1 | 4 | 6 |
| 3 | 25744 | MATH373 | Numerical Analysis for Engineers | MATH241 | 3 | 1 | 4 | 5 |
| 4 | 25751 | CMPE325 | Computer Architecture and Organization | CMPE224 | 4 | 1 | 4 | 7 |
| 5 | 25754 | CMPE321 | Signals & Systems for Computer Engineers | CMPE226 | 4 | 1 | 4 | 6 |
| 6 | 25761 | CMPE318 | Principles of Programming Languages | CMPE/AING211 | 4 | 1 | 4 | 6 |
| 7 | 25762 | CMPE344 | Computer Networks | CMPE242+MATH322 | 4 | 1 | 4 | 6 |
| 8 | 25772 | CMPE455 | Security of Computer Systems & Networks | CMPE344 + AING201 | 4 | 1 | 4 | 6 |
| 9 | 25773 | AE 02 | Area Elective I | | 4 | 1 | 4 | 6 |
| 10 | 25782 | AE 03 | Area Elective III | | 4 | 1 | 4 | 6 |
| | | | | | Total Credits / ECTS | | 39 | 68 |

| Additional Courses for CMSE- AING Double Major Program | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| # of crs. | R.code | Crs.Code | Course Name | Prerequisite | Lect. | Lab/Tur | Cr. | ECTS |
| 1 | 29731 | CMSE201 | Fundamentals of Software Engineering | CMSE/AING107 | 4 | 1 | 4 | 8 |
| 2 | 29743 | MATH373 | Numerical Analysis for Engineers | MATH241 | 3 | 1 | 3 | 5 |
| 3 | 29751 | CMSE321 | Software Requirement Analysis & Specification | CMSE201 | 4 | 1 | 4 | 7 |
| 4 | 29761 | CMSE322 | Software Design | CMSE321 | 4 | 1 | 4 | 6 |
| 5 | 29762 | CMSE318 | Principles of Programming Languages | CMSE211<br>AING211 | 4 | 1 | 4 | 7 |
| 6 | 29763 | CMSE344 | Computer Networks | CMSE242+MATH322 | 4 | 1 | 4 | 6 |
| 7 | 29764 | CMSE356 | Security of Software Systems | CMSE201 | 4 | 1 | 4 | 7 |
| 8 | 29765 | CMSE326 | Software Quality Assurance and Testing | CMSE201 | 4 | 1 | 4 | 6 |
| 9 | 29774 | CMSE473 | Software Process and Management | CMSE231+MATH322 | 4 | 1 | 4 | 6 |
| 10 | 29776 | AE01 | Area Elective I | CMSE107<br>AING107 | 4 | 1 | 4 | 6 |
| | | | | | Total Credits / ECTS | | 39 | 64 |

## ADDITIONAL REGULATIONS

### Attendance Requirements

Regular attendance of EMU students is required in all courses. When a student fails to show regular class attendance, an EMU faculty member may report an “NG” for the student. Such action may be taken when the number of unexcused absences exceeds 20% of the total class/laboratory hours scheduled for the course. Specific rules for NG grades are announced by instructors for each course at the beginning of each semester. Students should be aware that course grades can be adversely affected through absence, whether excused or unexcused.

### Leave of Absence

A student who has an important excuse for having a break from university studies for a period of time may apply for leave of absence. The total duration of leaves of absence for a student cannot exceed a total of four semesters during his/her studies.

Written appeals are made by using the student portal at the beginning of each semester, within five weeks of the commencement of classes. Medical cases are dealt with separately.

### Withdrawal from the University

A student who wishes to withdraw from the University must initiate withdrawal procedures with the Office of the Registrar. The official withdrawal procedure requires that the student obtain clearances from the Registrar, the Library, the Bookstore, Student Housing, and the Accounting Department.

### Student Transcript of Academic Record

At the end of each semester, students are provided with a copy of his/her academic records. Errors or suspected errors should be brought to the immediate attention of the Registrar. An official transcript of a student's entire academic record will be provided upon submission of a written request from the student to the Registrar. The official transcript will be mailed by the Registrar to the intended recipient and cannot be handed directly to the student. Student copies of transcripts may also be issued upon request, which can be handed to the student.

### Summer Session

The Summer session is organized primarily to help students with lower scholastic achievement in some courses. Students may register to summer session courses with the approval of the Department. Summer session is an intensive study which lasts for eight weeks. The number of courses offered is based on student demand and faculty availability. The grading policy is the same as the regular terms.

### Summer Training / Internship

Students enrolled in undergraduate programs run by the Computer Engineering department are required to do an internship of 40 days duration in organizations related to their fields of study as part of the fulfillment of the degree program requirements. Ideally, students should have at least completed their third academic year before doing their internship.

Starting from 2010-2011 academic year, students who have completed the curriculum apart from the summer training must pay 1/20 of the semester fees to register for only summer training.

### Disciplinary Matters

The principles of truth and honesty are recognized as fundamental to an academic community. It is expected that both teachers and students honor these principles. In the event of academic dishonesty or behavior that may damage University functions, disciplinary actions as described in the “Disciplinary Regulations” may be enforced by the Disciplinary Committee of the University.

## USEFUL LINKS

| | |
|---|---|
| Computer Engineering Web Site: | https://cmpe.emu.edu.tr |
| University Web Site: | https://www.emu.edu.tr |
| Rules and regulations of the university: | https://mevzuat.emu.edu.tr |
| Student portal: | https://student.emu.edu.tr |
| Campus Map: | https://www.emu.edu.tr/campusmap |

**NOTES**