# 4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

## 4.1. Mode of study:  Full Time

## 4.2. Programme requirements

A student is required to have a minimum CGPA of 2.00/4.00 and no failing grades (below DD).

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

### Curriculum courses

| Course Code | Course Name | Course Category | METU Credit | Grade | ECTS |
|---|---|---|---|---|---|
| 5710100 | COMPUTER ENGINEERING ORIENTATION | Required Course | 0.0 | S | 1.0 |
| 9010100 | INTRODUCTION TO INFORMATION TECHNOLOGIES AND APPLICATIO | Required Course | 0.0 | S | 1.0 |
| 6390101 | ENGLISH FOR ACADEMIC PURPOSES I | Required Course | 4.0 | CB | 6.0 |
| 6390102 | ENGLISH FOR ACADEMIC PURPOSES II | Required Course | 4.0 | DD | 6.0 |
| 2300105 | GENERAL PHYSICS I | Required Course | 4.0 | CB | 6.5 |
| 2300106 | GENERAL PHYSICS II | Required Course | 4.0 | BB | 6.5 |
| 2340107 | GENERAL CHEMISTRY | Required Course | 4.0 | AA | 6.0 |
| 5710111 | INTRODUCTION TO COMPUTER ENG. CONCEPTS | Required Course | 4.0 | DD | 4.0 |
| 6430112 | PAINTING | Free Elective | 3.0 | BA | 5.0 |
| 2360119 | CALCULUS WITH ANALYTIC GEOMETRY | Required Course | 5.0 | BA | 7.5 |
| 2360120 | CALCULUS FOR FUNCTIONS OF SEVERAL VARIABLES | Required Course | 5.0 | BA | 7.5 |
| 5710140 | C PROGRAMMING | Required Course | 4.0 | BA | 4.0 |
| 6390211 | ACADEMIC ORAL PRESENTATION SKILLS | Required Course | 3.0 | CC | 4.0 |
| 5710213 | DATA STRUCTURES | Required Course | 3.0 | CB | 6.0 |
| 2360219 | INTRODUCTION TO DIFFERENTIAL EQUATIONS | Required Course | 4.0 | DD | 7.0 |
| 2460221 | FUNDAMENTALS OF STATISTICS | Required Course | 3.0 | DC | 5.0 |
| 5710223 | DISCRETE COMPUTATIONAL STRUCTURES | Required Course | 3.0 | CC | 6.0 |
| 5700230 | FUNDAMENTALS OF MATERIALS SCIENCE AND ENGINEERING | Restricted Elective | 3.0 | BB | 5.0 |
| 5710232 | LOGIC DESIGN | Required Course | 4.0 | DD | 7.0 |
| 5710242 | PROGRAMMING LANGUAGE CONCEPTS | Required Course | 4.0 | BB | 7.0 |
| 2360260 | BASIC LINEAR ALGEBRA | Required Course | 3.0 | CC | 5.0 |
| 5710280 | FORMAL LANGU.AND ABSTRACT MACHINES | Required Course | 3.0 | CB | 6.0 |
| 5670281 | ELECTRICAL CIRCUITS | Required Course | 3.0 | DD | 5.0 |
| 5670282 | INTRODUCTION TO DIGITAL ELECTRONICS | Required Course | 3.0 | CC | 5.0 |
| 5710300 | SUMMER PRACTICE I | Required Course | 0.0 | S | 2.0 |
| 6420303 | TURKISH I | Required Course | 0.0 | S | 2.0 |
| 6420304 | TURKISH II | Required Course | 0.0 | S | 2.0 |
| 5710315 | ALGORITHMS | Required Course | 3.0 | DD | 6.0 |
| 1250317 | INTRODUCTION TO VISUAL MEDIA | Nontechnical Elective | 3.0 | AA | 5.0 |
| 4300321 | FOUNDATIONS OF DISTANCE EDUCATION | Technical Elective | 3.0 | AA | 5.0 |
| 5710331 | COMPUTER ORGANIZATION | Required Course | 3.0 | CB | 6.0 |
| 5710334 | INTRODUCTION TO OPERATING  SYSTEMS | Required Course | 3.0 | CC | 5.5 |
| 5710336 | INTRO.TO EMBEDDED SYSTEMS DEVELOPMENT | Required Course | 3.0 | BB | 5.5 |
| 5710350 | SOFTWARE ENGINEERING | Required Course | 3.0 | DD | 5.5 |
| 5710351 | DATA MANAGEMENT AND FILE STRUCTURES | Required Course | 3.0 | BB | 6.0 |
| 5710352 | DATABASE MANAGEMENT SYSTEMS | Technical Elective | 4.0 | DC | 6.0 |
| 1200365 | FINE ARTS TECHNIQUES WORKSHOP | Nontechnical Elective | 4.0 | AA | 6.0 |
| 1200366 | FINE ARTS TECHNIQUES WORKSHOP | Nontechnical Elective | 4.0 | BA | 6.0 |
| 5710384 | SIGNALS AND SYSTEMS FOR COMPUTER ENGINEERS | Required Course | 3.0 | DD | 5.0 |
| 5710400 | SUMMER PRACTICE II | Required Course | 0.0 | S | 2.0 |
| 5710436 | DATA COMMUNICATIONS AND NETWORKING | Required Course | 3.0 | DD | 6.0 |
| 5710443 | INTRODUCTION TO OBJECT-ORIENTED PROG. LANG. AND SYSTEMS | Technical Elective | 3.0 | DD | 6.0 |
| 5710451 | INFORMATION SYSTEMS DEVELOPMENT | Technical Elective | 3.0 | BA | 6.0 |
| 5710477 | INTRODUCTION TO COMPUTER GRAPHICS | Required Course | 3.0 | CC | 6.0 |
| 5710491 | COMPUTER ENGINEERING DESIGN I | Required Course | 2.0 | CB | 7.0 |
| 5710492 | COMPUTER ENGINEERING DESIGN II | Required Course | 2.0 | CC | 7.0 |
| 2402201 | PRINCIPLES OF KEMAL ATATÜRK I | Required Course | 0.0 | S | 2.0 |
| 2402202 | PRINCIPLES OF KEMAL ATATÜRK II | Required Course | 0.0 | S | 2.0 |

Total METU credits :135
Total ECTS credits:246.5
Final grade of the degree (CGPA):2.39 out of 4.00

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

For each course taken, the student is given one of the following grades by the course instructor. The letter grades, coefficients and percentage equivalents are given below.

| PERCENTAGE | COURSE GRADE | COEFFICIENT |
|---|---|---|
| 90-100 | AA | 4 |
| 85-89 | BA | 3.5 |
| 80-84 | BB | 3 |
| 75-79 | CB | 2.5 |
| 70-74 | CC | 2 |
| 65-69 | DC | 1.5 |
| 60-64 | DD | 1 |
| 50-59 | FD | 0.5 |
| 49 and below | FF | 0 |

I- Incomplete, S-Satisfactory Completion, U-Unsatisfactory, P-Satisfactory Progress, EX-Exempt, NI-Not Included, W-Withdrawn

The grade of (I) is given to a student who provides supporting evidence through genuine and valid documentation of illness or other reasons which have prevented her/him from completing the necessary course work. In such a case, within 7 days from the day of submitting the grades to Registrar`s Office, the student must complete the missing work and obtain a grade. Otherwise the (I) grade will automatically become an (FF).

The grade (S) is given to students who are successful in non-credit courses.

The grade (U) is given to students who are not successful in non-credit courses.

The grade (P) is given to students who are successfully taking non-credit courses.

The grade (EX) is given to students who previously attended another higher education institution and entered the university with the Student Selection Exam held by ÖSYM, and to those who transfer to this university from another, after the equivalence of courses they have taken before is approved by the faculty board after the Chairperson proposes it. The grade (EX) can also be given to student who meet the conditions determined by the Senate. The grade (EX) is not included in the grade point average but is shown on the transcript.

The grade (NI) is given if courses within the program or programs in which a student is registered are taken with the "condition that they are not included in their Cumulative Grade Point Average".

The grade (W) is issued if a student withdraws from a course after the add/drop period within the first 10 weeks after the semester starts, on the recommendation of her/his advisor and permission of the instructor concerned.

The student`s standing is calculated in the form of a Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA) and is announced at the end of each semester by the Registrar`s Office. The total credit points for a course are obtained by multiplying the coefficient of the final grade by the credit hours. In order to obtain the GPA for any given semester, the total credit points are divided by the total credit hours . The averages are given up to two decimal points.

## 4.5. Overall classification of the qualification :Başarılı \ Satisfactory

# 5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

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

## 5.2. Professional status (if applicable) :   Degree facilitates the exercise of the profession

# 6. ADDITIONAL INFORMATION

## 6.1. Additional Information:

Not applicable

## 6.2. Further Information Sources:

Faculty web page: http://www.eng.metu.edu.tr/

Registrar`s Office Home Page: http://www.oidb.metu.edu.tr/eng

Online university catalog: http://catalog.metu.edu.tr

Council of higher education: http://www.yok.gov.tr

ENIC/NARIC info center: http://www.enic-naric.net/index.aspx?c=Turkey

# 7. CERTIFICATION OF THE SUPPLEMENT

## 7.1. Date :  23/06/2015

## 7.2. Name and signature : Sebat Alanlı

## 7.3. Capacity :Acting Registrar

## 7.4. Official stamp or seal:

## 8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

### Structure and Degree System

The basic structure of the Turkish National Education System consists of stages of noncompulsory pre-school education; compulsory primary (elementary and middle school) and secondary (high school) education; and higher education. Primary education begins at the age of 5.5 (66 months), lasts eight years and comprises elementary and middle school education, four years each. Secondary education is also four years and divided into two categories as "General High School Education" and "Vocational and Technical High School Education". The entry into these categories is through composite scores obtained from a centralized exam for secondary schools.

Higher education system in Turkey is managed by the Council of Higher Education (CoHE, Yükseköğretim Kurulu-YÖK) which is an autonomous public body responsible for the planning, coordination, governance and supervision of higher education within the provisions set forth in the Constitution of the Turkish Republic and the Higher Education Law. Both state and non-profit foundation universities are founded by law and subjected to the Higher Education Law and to the regulations enacted in accordance with it.

Higher education in Turkey comprises all post secondary higher education programmes, consisting of short, first, second, and third cycle degrees in terms of the terminology of the Bologna Process. The structure of Turkish higher education degrees is based on a two-tier system, except for dentistry, pharmacy, medicine and veterinary medicine programmes which have a one-tier system. The duration of these one-tier programmes is five years (300 ECTS) except for medicine which lasts six years (360 ECTS). The qualifications in these one-tier programmes are equivalent to the first cycle (bachelor's) plus second cycle (master's) degree. Undergraduate level of study consists of short cycle (associate's)-(önlisans derecesi) and first cycle (bachelor's)-(lisans derecesi) degrees which are awarded after successful completion of full-time two-year (120 ECTS) and four-year (240 ECTS) study programmes, respectively.

Graduate level of study consists of second cycle (master's)-(yüksek lisans derecesi) and third cycle (doctorate)-(doktora derecesi) degree programmes. Second cycle is divided into two sub-types named as master without thesis and master with thesis. Master programmes without thesis require 60 to 90 ECTS credits and consist of courses and a semester project. 60 ECTS non-thesis master programmes are exceptional, and exist in a few disciplines. The master programmes with a thesis require 90 to 120 ECTS credits, which consists of courses, a seminar, and a thesis. Third cycle (doctorate) degree programmes are completed having earned a minimum of 180 ECTS credits, which consists of completion of courses, passing a proficiency examination and a doctoral thesis. Specialization in medicine, accepted as equivalent to third cycle programmes are carried out within the faculties of medicine, university hospitals and the training hospitals operated by the Ministry of Health.

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

Since 2003, first cycle degree holders may apply directly to third cycle (doctorate) programmes if their performance at the first cycle degree level is exceptionally high and their national central Graduate Education Entrance Examination (ALES) score is also high and their application is approved. For these students, theoretical part of the programmes requires additional courses of 60 ECTS credits.
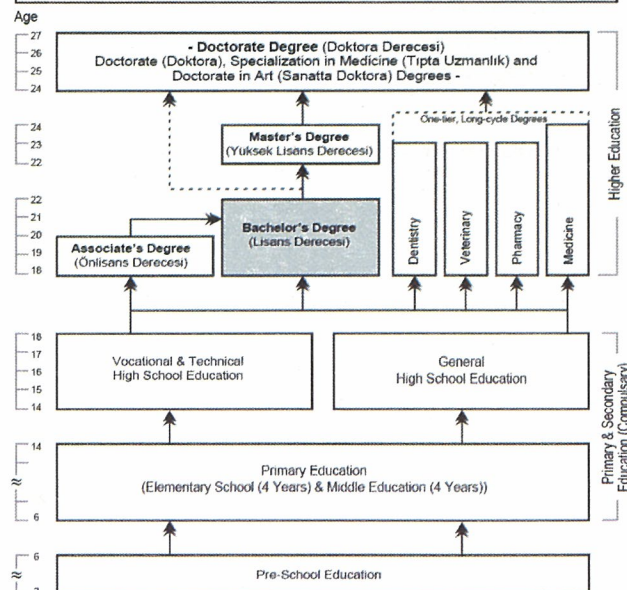
Admission of national students to short and first cycle degree programmes is centralized and based on a nationwide one/two-stage examination(s) conducted by an autonomous public body (Assessment, Selection and Placement Centre-ÖSYM). Candidates gain access to institutions of higher education based on their composite scores consisting of the scores on the selection examination and their high school grade point averages. Admission to graduate programmes is directly conducted by the higher education institutions (HEIs) within the frameworks of the publicly available national and institutional regulations. Admission of foreign students to programmes at all levels of higher education can be done by direct applications of candidates to HEIs based on publicly available national and institutional regulations.

**The Turkish National Qualifications Framework for Higher Education (TYYÇ):** The National Qualifications Framework for Higher Education in Turkey (TYYÇ) developed with reference to the QF for European Higher Education Area and the EQF for lifelong learning was adopted by the CoHE in 2010. The framework has been developed as a part of a single national qualifications framework, which would eventually consists of 8 level national framework covering all levels of educations on completion of the ongoing work at the national level, in which the higher education levels lie on levels between 5 to 8. The levels of the TYYÇ with reference to the European overarching qualifications frameworks as well as that to ECTS credits and student workload are shown below.

### TYYC LEVELS, QUALIFICATIONS TYPES AND ECTS CREDITS

| Higher Education Level & Cycles | | | AWARDS/ DEGREES | LENGTH | TOTAL ECTS CREDITS | TOTAL STUDENT WORKLOAD (h) |
|---|---|---|---|---|---|---|
| QF-EHEA | EQF-LLL | TYYÇ LEVELS | | (Year) | (Year x 60 ECTS) | (1 ECTS=25-30h) |
| 3 | 8 | 8 | Doctorate / Specialization in Medicine / Doctorate in Art | 3 (min.) | 180 (min.) | 4.500 - 5.400 |
| 2 | 7 | 7 | Master's Degree | 1-2 | 60-120 | 1.500 - 3.600 |
| 1 | 6 | 6 | Bachelor's Degree | 4 | 240 | 6.000 - 7.200 |
| Short Cycle | 5 | 5 | Associate's Degree | 2 | 120 | 3.000 - 3.600 |

### GENERAL STRUCTURE OF THE TURKISH EDUCATION SYSTEM



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**Diploma Supplement**    **Diploma No :** 121356    **Diploma Date :** 22/06/2015

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

### B.S., Computer Engineering, Middle East Technical University

#### 1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

**1.1. Family name(s)** : YILMAZ

**1.2. Given name(s)** : HASAN

**1.3. Date of birth** : 24.04.1991

**1.4. Student identification number** : 1679349

#### 2. INFORMATION IDENTIFYING THE QUALIFICATION

**2.1. Name of the qualification:**
Bilgisayar Mühendisliği, Lisans

**Title conferred (if applicable):**
Bilgisayar Mühendisi

**2.2. Main field(s) of study for the qualification:**
Computer Engineering

**2.3. Name and status of awarding institution:**
**Orta Doğu Teknik Üniversitesi, Devlet Üniversitesi**

**2.4. Name and status of institution administering studies:**
Same as 2.3

**2.5. Language(s) of instruction / examination:**
English

#### 3. INFORMATION OF THE LEVEL OF QUALIFICATION

**3.1. Level of qualification:**
First Cycle (Bachelor's Degree)

**3.2. Official length of programme:**
Normally 4 years (240 ECTS), maximum 7 years (excluding 1 year English Preparatory School, if necessary) 2 semesters per year, 16 weeks per semester

**3.3. Access requirements:**
Admission to higher education is based on a nation-wide Student Selection Examination (ÖSS). Certificate of English Proficiency is also required.