

## 7. CERTIFICATION OF THE SUPPLEMENT

- 7.1. Date : 24.02.2023  
 7.2. Name and Signature :  
 7.3. Capacity : Director of Student Affairs  
 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 non-compulsory 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 European Higher Education Area (EHEA). 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. The structure of first and second cycles is separate except for dentistry, pharmacy, medicine and veterinary programmes which are one-tier systems (lisans ve yüksek lisans bütünlüklü programları). The duration of these one-tier programmes is five years (300 ECTS) except for medicine which lasts six years (360 ECTS). The level of qualifications in these one-tier programmes is equivalent to that of second cycle including first cycle. Graduate level of study consists of second cycle (master's-yüksek lisans derecesi) and third cycle (doctorate-doktora derecesi) degree programmes.

Second cycle degrees are divided into two sub-types named as master with thesis and master without thesis. The master programmes with thesis require 120 ECTS credits, which consist of courses, a seminar, and a thesis. Master programmes without thesis require 60 to 90 ECTS credits and consist of courses and a semester project. These programmes do not give direct access to third-cycle doctoral studies; for access to third-cycle programmes candidates should fulfil the thesis and other requirements of master programmes with thesis. 60 ECTS non-thesis master programmes are exceptional and exist in a few disciplines. Third cycle (doctorate with master degree) degree programmes are completed having earned 240 ECTS credits, which consist of completion of courses, a seminar, passing a scientific proficiency examination and a doctoral thesis. Third cycle (doctorate with bachelor degree) degree programmes are completed having earned 300 ECTS credits, which consist of completion of courses, a seminar, passing a scientific proficiency examination and a doctoral thesis. Proficiency in art, specialisation in medicine and in dentistry are accepted as equivalent to third cycle programmes, the last two being carried out within the faculties of medicine and dentistry, university hospitals and the training hospitals operated by the Ministry of Health.

Universities consist of graduate schools (Institutes) offering second cycle and third cycle degree programmes, faculties offering first cycle programmes, four-year professional higher education schools offering first cycle degree programmes and two-year vocational schools offering short cycle degree programmes.

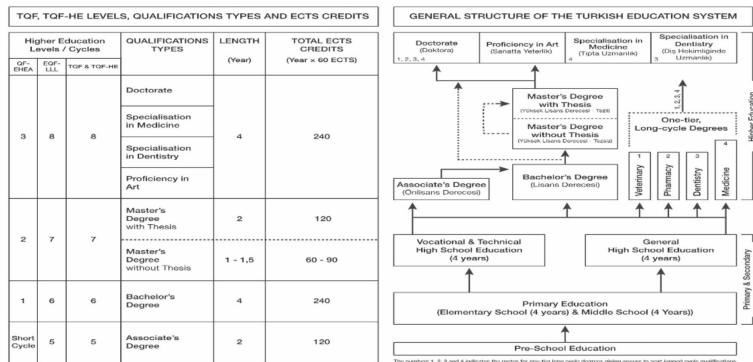
**Admission requirements:** Admission of national students to short and first cycle degree programmes is centralised and based on a nationwide one/two-stage examination(s) conducted by an autonomous public body (Assessment, Selection and Placement Centre-ÖSYM). Candidates gain access to institutions 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 international 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.

**Turkish National Qualifications Frameworks:** The National Qualifications Framework for Higher Education in Turkey (TQF-HE, TYİÇ in Turkish) developed with reference to the QF for European Higher Education Area and the EQF for lifelong learning was adopted by the CoHE in 2010. Later in 2015, the framework became a part of Turkish Qualifications Framework (TQF, TYÇ in Turkish) which was designed as a single framework in harmony with the European Qualifications Framework and displays all qualifications gained through vocational, general and academic programs including primary, secondary and higher education or other learning environments. The framework was referenced with the EQF in 2017.

TQF consists of 8 levels in which the higher education lies from 5 to 8. The levels of TQF and TQF-HE with reference to the European Overarching Qualifications Frameworks as well as that to ECTS credits and student workload are shown below.

**Turkish Quality Assurance System:** The Higher Education Quality Council of Turkey (THEQC) was founded as an autonomous public legal entity in 2015, and since then it has been operating at the national level for evaluating the quality levels of higher education institutions' education and research activities and administrative services at institutional level in accordance with the national and international quality standards, and coordinating the processes of institutional accreditation, internal and external quality assurance as well as authorization of independent external evaluation and accreditation organizations. THEQC is a full member of ENQA (The European Association for Quality Assurance in Higher Education) since April of 28, 2020.

### GENERAL STRUCTURE OF THE TURKISH EDUCATION SYSTEM



## İZMİR UNIVERSITY OF ECONOMICS DIPLOMA SUPPLEMENT



İzmir Ekonomi Üniversitesi

Sakarya Cad. No:156 Balçova-İZMİR/TÜRKİYE

Tel: +90 (232) 279 25 25 www.iue.edu.tr

Diploma No :  
Diploma Date : 24.02.2023

The purpose of the Diploma 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 is free from any value judgements, equivalence statements or suggestions about recognition. This Diploma Supplement model was developed by European Commission, Council of Europe and UNESCO.

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

- 1.1. Last name(s) :  
 1.2. First name(s) :  
 1.3. Date of birth (day/month/year) :  
 1.4. Student identification number or code :

### 2. INFORMATION IDENTIFYING THE QUALIFICATION

- 2.1. Name of the qualification and (if applicable) title conferred:  
**Yazılım Mühendisliği, Lisans Derecesi**  
**Title conferred:** Yazılım Mühendisi (Software Engineer)  
 2.2. Main field(s) of study for the qualification:  
**Software Engineering**  
 2.3. Name and status of awarding institution:  
**İzmir Ekonomi Üniversitesi: Kâr Amacı Gütmeyen ve Devlet Tarafından Tamınan Vakıf Üniversitesi**  
**İzmir University of Economics, Non-profit and State Recognized Foundation University**  
 2.4. Name and status of institution (if different from 2.3) administering studies  
**same as 2.3**  
 2.5. Language(s) of instruction/examination: **English**

### 3. INFORMATION ON THE LEVEL AND DURATION OF THE QUALIFICATION

- 3.1. Level of qualification: **First Cycle (Bachelor's Degree)**  
 3.2. Official duration of programme in credits and/or years:  
**4 years (240 ECTS), 8 Semesters, 16-18 weeks per semester.**  
 3.3. Access requirement(s):  
**(1) High school diploma, (2) Placement through a centralised, nation-wide student selection and placement examination organized by Assessment, Selection and Placement Centre (ÖSYM). Candidates gain access to the programmes based on their composite scores consisting of the scores on the centralized exam and high school grade point averages.**

## 4. INFORMATION ON THE PROGRAMME COMPLETED AND THE RESULTS OBTAINED

### 4.1. Mode of study: Full Time

### 4.2. Key Learning Programme Outcomes:

- To educate the engineers of the future having the highest standards of software engineering, principles and application design aptitude.
- To guide the students in analyzing the fundamentals of software engineering design, object-oriented programming, and the effective mechanisms of implementing and maintaining software systems.
- To develop a solid foundation in computer science and mathematics and integrate skills of teamwork, management and creativity with application development and project management.

### Graduation Requirements:

To succeed in all courses with a grade of at least DD/S in 240 ECTS. Cumulative Grade Point Average (CGPA) of 2.00 out of 4.00. To complete compulsory internship.

### 4.3. Programme details, individual credits gained and grades/marks obtained\* :

Course Code	Course Title	Course Category	Institutional Credits	ECTS Credits	Grade
011	English Preparatory Program	Required Course	S	0.0	0.0
SE 105	Introduction to Software Engineering	Required Course	CC	3.0	3.0
SE 115	Introduction to Programming I	Required Course	DD	3.0	6.0
MATH 153	Calculus I	Required Course	DD	3.0	6.0
IUE 100	Academic and Social Orientation	Required Course	BB	1.0	1.0
TURK 100	Turkish	Required Course	BA	4.0	4.0
ENG 101	Academic Skills in English I	Required Course	BB	3.0	3.0
TTL 103	Italian Language I	Elective	BA	3.0	4.0
CHEM 100	General Chemistry	Required Course	DC	3.0	6.0
PHYS 100	General Physics I: Mechanics and Thermodynamics	Required Course	CC	3.0	6.0
MATH 154	Calculus II	Required Course	Pass	3.0	6.0
ENG 102	Academic Skills in English II	Required Course	BA	3.0	4.0
HIST 100	Princ. of Atatürk and Hist. of Revol.	Required Course	CC	4.0	4.0
GER 102	German Language II	Required Course	BA	3.0	4.0
CE 215	Discrete Structures of Computer Science	Required Course	DD	3.0	6.0
CE 221	Data Structures and Algorithms I	Required Course	DD	4.0	7.0
MATH 250	Linear Algebra for Engineers	Required Course	DD	3.0	6.0
GEEC 201	Introduction to Business	Required Course	BB	3.0	4.0
GER 201	German Language III	Required Course	BB	3.0	4.0
GER 101	German Language I	Required Course	AA	3.0	4.0
SE 116	Introduction to Programming II	Required Course	AA	3.0	6.0
SE 315	Software Project Management	Required Course	BB	3.0	5.0
CE 223	Database Systems	Required Course	DD	4.0	7.0
MATH 240	Probability for Engineers	Required Course	CC	3.0	6.0
GER 202	German Language IV	Required Course	CB	3.0	4.0
SE 305	Software Specification and Design	Required Course	DD	3.0	8.0
SE 311	Software Architecture	Required Course	DC	3.0	7.0
MCS 441	Music and Sound Design in Film	Elective	BB	3.0	4.0
SE 366	Numerical Analysis	Elective	CC	3.0	8.0
SE 320	Introduction to Game Development	Elective	CB	3.0	5.0
SE 309	Concepts of Programming Languages	Required Course	BA	3.0	8.0
SE 350	Game Design	Elective	CC	3.0	5.0
GEAR 307	Contemporary World Cinema	Required Course	DC	3.0	4.0
SE 318	Software Verification and Validation	Required Course	DC	3.0	7.0
SE 375	Systems Programming	Required Course	DD	3.0	7.0
SE 307	Concepts of Object-Oriented Programming	Elective	DD	3.0	7.0
SE 330	Advanced Game Development	Elective	CC	3.0	5.0
SE 470	Software Maintenance	Elective	CB	3.0	5.0
ENG 310	Essential Speaking Skills in English	Required Course	BA	3.0	4.0
ST 304	Summer Training (4 weeks)	Required Course	S	0.0	4.0
CLM 405	Restaurant Management	Elective	BB	3.0	5.0
FENG 497	Senior Project I	Required Course	BB	3.0	6.0
CE 308	Computing Theory	Required Course	DD	4.0	7.0
SE 432	3D Animation in Computer Games	Elective	CC	3.0	5.0
ENG 410	English for Career Development	Required Course	BB	3.0	4.0
CLM 412	Banquet Organization and Management	Elective	CB	3.0	5.0
FENG 498	Senior Project II	Required Course	BB	3.0	6.0

Total Credits Obtained: (Institutional), ECTS

Cumulative Grade Point Average (CGPA) :

### 4.4. Grading system and, if available, grade distribution table

For each course taken, the students is given one of the following grades by the course teacher. Local letter grades, ECTS grades, grade points and percentage equivalents are given below:

Percentage	90-100	85-89	80-84	75-79	70-74	65-69	60-64	50-59	49 and below
Local Course Grades	AA	BA	BB	CB	CC	DC	DD	FD	FF
Grade Points	4.00	3.50	3.00	2.50	2.00	1.50	1.00	0.50	0.00
ECTS Grades	A	B	B	C	C	D	E	FX	F

Other Grades: S: Satisfactory Completion, EX: Exempt, NI: Not Included

In accordance with the recommendations of the Ministry of Health in the fight against the New Coronary Virus disease (COVID-19) and the decisions of the Higher Education Council's on transition to distance education, "Pass" grade has been added to the University's grading system. This grade is not included in the GPA calculation.

"Pass" grade is given to:

- Associate and undergraduate students for IUE credit courses they received DD and above grades,
- Master's students for IUE credit courses they received CC and above grades,
- Ph.D. students for IUE credit courses they received CB and above grades.

**Exchange Program Courses (EP):** These are the courses taken at partner universities abroad in the framework of Erasmus Program and/or cooperation protocols.

**Transferred Courses (T):** Courses taken at other universities that are exempted (through transfer, previous education, etc.)

**Double Major, Minor and Certificate Program Transfer Courses (DMT, MNT, CT):** Shows the courses of the students who left DMP (Double Major Program), MP (Minor Program) and CP (Certificate Program) These are not counted in Major Program courses. When students leave Double Major and Minor Programs, they are not obliged to repeat the Double Major and Minor Program courses they have failed.

**Double Major/Minor Program Transfer Courses (MT):** It indicates the successful courses, which are transferred to major transcript (NI) without being included in grade point average, for students leaving Double Major and Minor Program.

**Double Major-Major Common Equivalent Coursed (TMP):** Indicates the Double Major-Major common equivalent courses.

**Grade Point Averages:** The student's academic standing is calculated in the form of a GPA and Cum. GPA out of a scale of 4.00 and announced at the end of each semester by the Registrar's Office. A student's GPA is obtained by the multiplying the grade points of the final grade by the credit hours and divided by the total credit points earned in that semester. The Cum. GPA is computed by the ratio of total grade points earned by the total credit points earned up to and including that semester.

### 4.5 Overall Classification of the qualification :

Genel Not Ortalaması: /4.00; ""Başarılı-Successful""

Cumulative Grade Point Average (CGPA): out of 4.00; "Successful"

## 5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

### 5.1 Access to further study:

Upon successful completion of this programme, students may apply to second cycle degree or directly to integrated third cycle (doctorate) programmes.

### 5.2 Access to a regulated profession (if applicable):

This degree enables the graduate to exercise his/her profession in the field of Software Engineering as an engineer in accordance with the national regulations and practices.

## 6. ADDITIONAL INFORMATION

### 6.1. Additional information

### 6.2. Further information sources

University web site: <https://www.iue.edu.tr/>

University's ECTS Course Catalogue: <http://ects.ieu.edu.tr/new/>

YÖK/CoHE website: <https://www.yok.gov.tr>

YÖKAK/THEQC website: <https://yokak.gov.tr>

The Turkish ENIC-NARIC website: <https://denklik.yok.gov.tr/enic-naric-tr-tanima-ofisi>

TYÇ/TQF website: <https://www.myk.gov.tr/index.php/en/turkiye-yeterlilikler-cercevesi>

TYYC/TQF-HE website: <http://www.tyyc.yok.gov.tr>