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 (6 months later in certain provinces) 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 competitive exams obtained from a centralized exam for secondary schools.

Higher education in Turkey is managed by the Council of Higher Education (Rektorluk, 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 governed by law and subject to the Higher Education Law and the regulations enacted in accordance with it.

Higher education in Turkey comprises post-secondary higher education programmes, consisting of first, second, and third cycle degrees in the terminology of the Bologna Process. The structure of Turkish higher education degree is based on a three-tier system, except for dentistry, pharmacy, medicine and veterinary medicine programmes which have a four-year 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 non-engineer 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/associate degree) and first cycle (bachelor's/degree) degrees which are awarded after successful completion of full-time twelve (120 ECTS) and four-year (140 ECTS) study programmes, respectively.

Graduate level of study consists of second cycle (master's/second degree) and third cycle (doctorate/doctoral degree) degree programmes. Second cycle is divided into two sub-types namely master without thesis and master with thesis. Master without thesis requires 60 to 90 ECTS credits and consists of courses and a semester project. 60 ECTS thesis master programmes are exceptional, and exist in a few disciplines. The master programmes with thesis require 60 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 facilities of medical 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 programmes if their performance at the first cycle degree level is exceptionally high and their national graduate examination (Lisevi Sınav) at least also high and their application is approved. For these students, full-time part of the programme 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 entrance-examination conducted by an autonomous public body (Assessment, Selection and Placement Center – OSB). Candidates gain access to institutions of Higher education based on their composite score consisting of the scores on the selection examination and their high school grade point average. Admission to graduate programmes is conducted by the higher education institutions (HEIs) within the framework 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 application of criteria defined by a HEI based on publicly available national and institutional regulations.

The Turkish National Qualifications Framework for Higher Education (TYC): The National Qualifications Framework for Higher Education in Turkey (TYC) developed with reference to the EQF for European Higher Education Area and the EQF for Lifelong learning was adopted by the CoE in 2010. The framework has been developed as a part of a single national qualifications framework, which would eventually consist of at least one national framework covering all levels of education on completion of the ongoing work at the national level, in which the higher education levels are at levels 5 to 8. The levels of the TYC, with reference to the European occupational frameworks as well as to ECTS credits and student workload are shown below:

#### TYC LEVELS QUALIFICATIONS TYPES AND ECTS CREDITS

<table>
<thead>
<tr>
<th>Higher Education Levels/Cycles</th>
<th>ECTS Credits</th>
<th>Length (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFEQQ EFL LLL TYC LEVELS</td>
<td></td>
<td>(Year)</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>120</td>
<td>3</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>180</td>
<td>2-3</td>
</tr>
<tr>
<td>Doctorate Degree (Ph.D.)</td>
<td>240-300</td>
<td>3-4</td>
</tr>
<tr>
<td>Associate's Degree (2nd Cycle)</td>
<td>90</td>
<td>2</td>
</tr>
</tbody>
</table>

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1. Level of qualification

Second Cycle (Master's Degree)

3.2. Official length of programme

2 years, 2 semesters per year, 16 weeks per semester, 120 ECTS credits

3.3. Access requirement(s)

* Bachelor's degree.
* Acceptable score from the centralized Academic Staff and Graduate Education Entrance Examination (ALES).
* Certificate of English Proficiency.
* Admission is based on the evaluation of the department.
4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1. Mode of study:
Full-time

4.2. Programme requirements
Master's Degree is awarded to students who have
- successfully completed at least 7 different graduate courses with minimum 21 GIT credits and two graduate seminars,
- taken %60 of 7 graduate courses in English,
- obtained a total of 120 ECTS credits,
- maintained a minimum C.P.G.A. of 3.00 / 4.00,
- prepared a Master thesis and passed a Thesis Defence Examination,

Programme Objectives:
The program aims to donate students with knowledge of Materials Science and Engineering and skills to design and conduct experiments, as well as analyze and interpret data related to materials design and specification; and skills either to perform their profession or to continue their studies at post-graduate level.

Programme Learning Outcomes:
Upon successful completion of this program, students will be able to:
1. Define and manipulate advanced concepts of Materials Science and Engineering,
2. Formulate and solve advanced engineering problems
3. Review the literature critically pertaining to his/her research projects, and connect the earlier literature to his/her own results
4. Embrace modern methods and tools in the field of materials science and engineering
5. Acquire scientific knowledge
6. Design and conduct research projects independently
7. Work effectively in multi-disciplinary research teams
8. Develop an awareness of continuous learning in relation with modern technology
9. Find out new methods to improve his/her knowledge.
10. Effectively express his/her research ideas and findings both orally and in writing
11. Write progress reports clearly on the basis of published documents, thesis, etc
12. Defend research outcomes at seminars and conferences.
13. Demonstrate professional and ethical responsibility.

4.3 Programme details: (e.g. modules or units studied), and the individual grades/marks/credits obtained:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Course Category</th>
<th>Credit</th>
<th>Grade</th>
<th>ECTS Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 631</td>
<td>METAL FORMING AND THEORY OF PLASTICITY</td>
<td>Elective Course</td>
<td>3.0</td>
<td>AA</td>
<td>7.5</td>
</tr>
<tr>
<td>MSE 548</td>
<td>ANALYSIS OF MATERIAL SYNTHESIS PROCESSES</td>
<td>Elective Course</td>
<td>3.0</td>
<td>AA</td>
<td>7.5</td>
</tr>
<tr>
<td>MSE 547</td>
<td>MECHANICAL BEHAVIOR OF MATERIALS AT ELEVATED TEMPERATURES</td>
<td>Elective Course</td>
<td>3.0</td>
<td>AA</td>
<td>7.5</td>
</tr>
<tr>
<td>MSE 609</td>
<td>SURFACE SCIENCE</td>
<td>Elective Course</td>
<td>3.0</td>
<td>BA</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Semester 1:
Total Credits: 21 Total ECTS Credits: 120

Semester 2:
Total Credits: 20

Semester 3:
Total Credits: 19

Semester 4:
Total Credits: 10

4.4 Grading scheme and grade distribution guidance
A student who receives a grade of (AA), (BA), (BB), (CB), or (CC) in any course will be considered successful. Lesser grades will indicate failure. Students are required to maintain a minimum a grade of (BB) to graduate from a graduate programme.

For each course taken, the student is given one of the following grades by the lecturer. The letter grades, grade points and percentage equivalents are given below:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>90-100</th>
<th>85-89</th>
<th>80-84</th>
<th>75-79</th>
<th>70-74</th>
<th>65-69</th>
<th>60-64</th>
<th>55-59</th>
<th>50-59</th>
<th>49 and below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Grade</td>
<td>AA</td>
<td>BA</td>
<td>BB</td>
<td>CB</td>
<td>CC</td>
<td>DC</td>
<td>DD</td>
<td>FD</td>
<td>FF</td>
<td>NA</td>
</tr>
<tr>
<td>Grade Points</td>
<td>4.0</td>
<td>3.5</td>
<td>3.0</td>
<td>2.5</td>
<td>2.0</td>
<td>1.5</td>
<td>1.0</td>
<td>0.5</td>
<td>0.0</td>
<td>P</td>
</tr>
<tr>
<td>ECTS Grades</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>FX</td>
<td>No Equivalence</td>
<td>F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The statements mentioned above are valid for courses continuing more than 1 semester - such as thesis work.

Grade Point Averages (G.P.A.): The student's standing is calculated in the form of a Grade Point Average (G.P.A.) and Cumulative Grade Point Average (C.G.P.A.), 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 grade point by the credit hours. In order to obtain the G.P.A. for any given semester, the total credit points earned in that semester are divided by the total credit hours.

Cumulative Grade Point Averages (C.G.P.A.): The sum of at least 21 credit points earned from minimum 7 courses that the student has been most successful is divided by 21 credit hours to calculate C.G.P.A.

4.5 Overall classification of the qualification
Genel Not Ortalaması: 3.79 / 4.00
Cumulative Grade Point Average: 3.79 / 4.00

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION
5.1. Access to further study
May apply to third cycle programmes

5.2. Professional status
This degree enables the holder to exercise the profession

6. ADDITIONAL INFORMATION
6.1. Additional information:

6.2. Further information sources:
University web site: www.gyte.edu.tr
Online University Catalogue: http://enlab.gyte.edu.tr/ects
The Council of Higher Education web site: www.yok.gov.tr
The Turkish ENIC-NARIC web site: www.enic-naric.net/members.asp?country=Turkey

7. CERTIFICATION OF THE SUPPLEMENT
7.1. Date: 22.07.2013
7.2. Signature: [Signature]
7.3. Capacity: Registrar of Student Affairs Office Tülay BÜYÜKAKSOY