GRADUATE PROGRAM BOOKLET

MECHANICAL ENGINEERING

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Information and guidelines for the graduate students of the Mechanical Engineering Department for the academic year 2017-2018

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GENERAL INFORMATION

1.1 Mechanical Engineering Department

The Department of Mechanical Engineering (ME) is one of the first three departments established in this University. The graduate program of the department was started in 1990. The Department offers programs of study leading to the degrees of Bachelor of Science (B.S.) in Mechanical & Mechatronics Engineering, Master of Science (M.S.), and Doctor of Philosophy (Ph.D.) in Mechanical Engineering. The Mechanical Engineering Department has the largest population of international students in EMU at present. The BS Mechanical and Mechantronics Engineering programs are accredited by ABET (Accreditation Board for Engineering and Technology).

1.2 Eastern Mediterranean University Mission Statement

To offer contemporary, sustainable and quality education at international standards, conduct research, contribute to the needs of the society, and meet the needs of all stakeholders and graduate students in a multicultural environment having international knowledge and competences. This statement is published in the University website: http://ww1.emu.edu.tr/en/about-emu/mission-and-vision/c/594

1.3 Faculty of Engineering Mission Statement

- Contribute to the betterment of our society through the pursuit of innovative education, active learning and cutting edge scientific research.
- Maintain our regional leadership in engineering education and research, and develop close relationships with and provide knowledge, services and technology to all related communities in its area.
- Provide opportunities and create an esteemed academic environment for the exchange of diversity of cultures, social, political and ideological knowledge and professional talents among the students as well as the faculty.
- Assure quality and foster systematic pursuit of improvement in quality of education to graduate engineers with abilities to analyze and interpret data, design and conduct experiments, apply knowledge to solve engineering problems in a global, economic, environmental, societal context with focus on social, political, ethical, health and safety, manufacturability, and sustainability in a life-long learning capacity.

This statement is published in the Faculty website: http://eng.emu.edu.tr/

1.4 Departmental Mission Statement

The mission of the Mechanical Engineering Department is to cultivate on the creation integration, transfer and application of knowledge relevant to the disciplines of Mechanical and

GENERAL INFORMATION

Mechatronics Engineering. The purpose of the post graduate program is to contribute to the technological improvement to serve national and international communities. Through continuously developing our educational and research programs, students graduating as engineers become professional leaders who can apply their knowledge and skills to work on the engineering problems encountered by community and industry. This statement is published in the Department website.

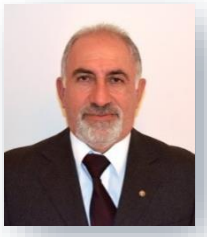
The Department is committed to foster mechanical engineers who are prepared to contribute to society with reliable basic technological skills and proficiency in their field. For this purpose, some educational targets are set as the students are requested to study intensively towards these targets.

Our aim is to enable students to acquire the technological skills to see things from multiple standpoints in a global perspective by learning extensively from the humanities, social sciences, languages, etc., and by mastering an intense academic background with a favor toward technological knowledge.

Graduate research in the Department is conducted primarily in the areas of thermal and fluid sciences, mechanics, machine design, mechatronics, automation, materials and manufacturing.

STAFF

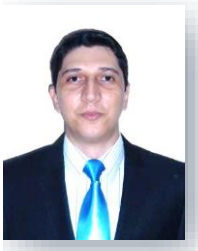
2.1. Academic Staff



Hasan HACISEVKI
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Neriman ÖZADA
Vice Chair of the Department, Assistant Professor of Mechanical Engineering. Dr. Ozada received her B.S from Eastern Mediterranean University. And she received her PhD. from Brunel University, UK. Her current research interests include Biomechanics and Musculoskeletal Systems, Musculoskeletal joint modeling, Orthopaedic Implant Design and manufacturing, Artificial Joint Contact and Robotics.
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Vice Chair of the Department, Assistant Professor of Mechanical Engineering. Dr. Davut Solyalı received his BSc degree in Electrical and Electronic Engineering from the Eastern Mediterranean University, Famagusta, Cyprus. He obtained his MSc in Electrical Power Systems with distinction and his PhD from the Department of Electronic and Electrical Engineering, University of Bath, Bath, U.K in 2007 and 2013. He worked at the ENCC (the Electricity National Control Centre) of the National Grid (UK) as a power systems engineer between 2008 and 2014. Thereafter, he has been teaching at the Eastern Mediterranean University in Cyprus. His major areas for academic & research are renewable energy systems, power and high voltage systems, electrical machines, smart grids & electric vehicles.
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Uğur ATİKOL
Professor of Mechanical Engineering. Dr. Atikol is a Professor of Mechanical Engineering. He received his B.S degree from the University of Leicester and M.Sc. degree from the University of Manchester. He completed his Ph.D. in Eastern Mediterranean University. Dr. Atikol`s research interests are Energy Management, Planning and Utilization, Solar Energy and Desalination. He has been the director of EMU Energy Research Center since 2004.
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STAFF



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Assistant Professor of Mechanical Engineering. Dr. Özdenefe gained his BSc. from Mechanical Engineering Department, Çukurova University. Dr. Özdenefe then received his MSc. in Mechanical Engineering Department, Eastern Mediterranean University. He completed His PhD in School of Mechanical, Aerospace and Civil Engineering, The University of Manchester with the PhD. project "Phase Change Materials and Thermal Performance of Buildings in Cyprus". Dr. Özdenefe's research interests are: Building Heat Transfer, Building Thermal Performance Simulation, Phase Change Materials, Energy Auditing, Passive Buildings.
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Professor Emeritus of Mechanical Engineering. Prof. Sezai received his B.Sc. and M.Sc. degrees from Middle East Technical University, and second M.Sc. from UMIST, University of Manchester, UK. Furthermore, he received his Ph.D. from Eastern Mediterranean University. Prof. Sezai`s current research interests include Computational Heat and Fluid Flow, Solar Energy, Flow through Porous Media and Crystal Growth.
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Habibe ÖĞÜT	ME 007	2185	
Zehra EKİZ	ME 007	2185	

RESEARCH AREAS

1. *Energy*

- Solar energy applications in buildings
- Solar air heating
- Solar water heating
- Solar desalination
- Solar energy integrated vehicles
- Energy generation systems (nuclear and fossil fuel power plants)
- Building energy performance simulation
- Thermal Energy Storage

2. *Energy management*

- Demand-side management
- Integrated resource planning
- Efficient energy utilization
- Energy demand prediction

3. *Thermodynamics*

- Advanced power cycles
- Absorption cycles
- Thermo-elasticity
- Computational heat dynamics

4. *Fluids*

- Computational fluid dynamics
- Flow simulation on unstructured grids
- Parallel programming in CFD
- Solution methods of fluid flow equations
- Two phase flows (interface tracking methods, and melting and solidification)
- Simulation of turbulent flows (RANS and LES methods)
- Nanofluids and applications

5. *Aerodynamics*

- Flow properties behind bluff bodies
- Flow interactions between different cross sections
- Analysis of aero-engine turbine blades

6. *Automotive*

- Vehicle dynamics
- Improving combustion process in I.C. engines
- Metallic and ceramic engines
- Simulation studies of different compound engine schemes
- Computer modeling of general thermodynamic systems
- Electrical Vehicle Design

7. *Biomechanics*

- Design and development of diarthrodial joint prosthesis

- 6DOF kinematic analysis of joint prosthesis
- Simulation of wear at contact point of prosthesis
- Modelling of human body joints as 6DOF unconstrained joints
- FE analysis of diarthrodial joints
- Predicting injury mechanisms of joints and tissues
- Dynamics of vehicles

8. Multidisciplinary Design Optimization

- Design Optimization of complex multidisciplinary systems
- Design under uncertainties
- Robust Design & Meta-Modeling
- Multi-Objective & Hybrid Optimization
- Dealing with nonlinear mechanical problems using high performance computing methods

9. Vibration, acoustics and vibro-acoustics

- Designing of quiet structures
- Self-excited vibrations
- Energy harvesting by piezoelectric
- Optimum vibro-acoustics design of mechanical structures, e.g, mufflers, wind turbines, human hearing implants.

10. Dynamical systems and control

- Structures under impacts, e.g., airplane landing gears system
- Robotics
- Control of hybrid electric power-trains

11. Manufacturing systems

- Distributed control/manufacturing systems (IEC 61499)
- Wireless sensor networks and RFID applications in manufacturing
- Modeling framework for organizational competency
- Collaborative networks
- Intelligent manufacturing systems
- Development of computer aided engineering software (CASE tools)
- Process planning and scheduling integration for SMEs

12. Manufacturing processes

- Incremental sheet forming
- Metal spinning
- Friction stir processing
- Friction stir welding
- Hybrid welding
- High speed milling
- Water jet machining
- Laser cladding
- Analytical modelling of manufacturing processes

13. Material science and engineering

- Mechanical behavior of materials (fatigue, creep, fracture)
- Film formation and its characterization
- Plastic deformation and micro-structural effects
- Prediction of fracture and forming limits
- Heat treatment
- Surface alloying
- Thermo-magnetic materials and applications

ADMISSIONS REQUIREMENTS

M.Sc. in Mechanical Engineering

M.Sc. program requires a minimum CGPA of 2.75/4.0 (or international equivalent) in a related science or engineering discipline; for applicants with CGPA below 2.75 (between 2.5 and 2.75) the departmental graduate committee may ask the candidates to take a number of deficiency courses from the undergraduate program before they are admitted to the program.

Ph.D. in Mechanical Engineering

For the Ph.D. program the standard academic entry requirement is a minimum CGPA of 3.0/4.0 (or international equivalent) obtained from a related science or engineering undergraduate discipline. The applicant is also required to have a Master's Degree in a mechanical engineering-related field and submit a research proposal (brief explanation about his/her research interests). Admission of applicants to the Ph.D program is subject to the availability of a supervisor in the proposed research field.

PROGRAM REQUIREMENTS

The graduate programs (MSc. and PhD) in Mechanical Engineering is in full compliance with the rules and regulations outlined in the "Doğu Akdeniz Üniversitesi Lisansüstü Öğretim Yönetmeliği". In addition, the following requirements set by the Mechanical Engineering Department should be fulfilled.

1- The fields of study in the Mechanical Engineering Department are classified into three groups
Thermal-fluid Science and Energy; Materials and Manufacturing; Mechanics and Machine Design

2- Students accepted for the graduate program should have taken the courses or their equivalents as given below. Otherwise the candidate will be asked to take all or some of the courses not taken before.

(a) Thermal-fluid Science Energy: Thermodaynamics (MENG 245, 246), Heat Transfer (MENG 345), Fluid Mechanics (MENG 353)
(b) Materials and Manufacturing: Materials Science (MENG 286), Manufacturing Processes (MENG 364), Strength of Materials (MENG 222)
(c) Mechanics and Machine Design: Dynamics of Machinery (MENG 331)), Control System (MENG 332), Machine Elements (MENG 375, 376)
(d) Engineering Mathematics courses are prerequisite for students in all of three groups besides familiarity in one computer language, (such as Fortran, C, C++ Pascal, Basic,…..)

PROGRAM REQUIREMENTS

MASTER OF SCIENCE

1- A Master student needs to take 7 Technical courses and 2 Non-credit courses (Seminar and Advanced writing) as one of Master degree requirement.
2- Two MATH courses, as approved by the department, are compulsory for every student.
3- Besides MATH and Non-credit courses, a student needs to take at least 3 departmental courses (i.e., with MENG code).
4- The remaining 2 courses are elective and can be taken with the permission of concerned supervisor.
5- A Master student can take an undergraduate course (from area electives with MENG 400 code), which will be counted as one of the three departmental courses required to be taken.

Course Code	Course Title	Credit	Lecture Hour (hrs/week)	Lab / Tutorial (hrs/week)
MENG500	M.S. Thesis	No-Credit	-	-
REQ1	Required Course	3	3	-
REQ2	Required Course	3	3	-
REQ3	Required Course	3	3	-
REQ4	Required Course	3	3	-
REQ5	Required Course	3	3	-
REQ6	Required Course	3	3	-
REQ7	Required Course	3	3	-
MENG598	Seminar	No-Credit	-	-

PROGRAM REQUIREMENTS

DOCTORATE OF PHILOSOPHY

1- A PhD student needs to take 7 Technical courses and 2 Non-credit courses (Seminar and Advanced writing) as one of Master degree requirement. However, Advanced writing can be exempted for a student if he/she has already taken this course in Master program.
2- Two MATH courses, as approved by the department, are compulsory for every student.
3- Besides MATH and Non-credit courses, a student needs to take at least 3 departmental courses (i.e., with MENG code).
3- The remaining 3 courses are elective and can be taken with the permission of concerned supervisor.
4- A PhD student, contrary to a Master student, is not allowed to take any undergraduate course (with 400 code).
5- After fulfilling the course requirement, the student is required to register for PhD qualifying exam with the advisor. Prior to appear in exam, applicant (or supervisor) must update graduate school by filling the relevant form. This exam consists of two parts; written and oral exams. The objective of the written exam is to test the student's background in the proposed field of research.

i-The streams and the relevant subjects of the written exam are as follows:

a- Thermal Energy and Fluid Science group

1- Applied Mathematics
2- Heat Transfer
3- Thermodynamics
4- Fluid Mechanics

b- Materials and Manufacturing group

1- Applied Mathematics
2- Materials Science
3- Manufacturing Processes
4- Strength of Materials

c- Mechanics and Machine Design group

1- Applied Mathematics
2- Machine Elements
3- Dynamics and Vibration
4- System Control

ii- The exam depending on the instructor could be open or close book.

iii-The exam (written & oral) is organized and evaluated by a committee with ***at least three members.***

iv-To qualify exam, a student should secure at least 65% marks in each subject.

v-Students who fail the qualifying examination are allowed to retake the exam for the second time only after three months.

vii- In case a student successfully qualifies exam, s/he must appear for oral exam, preferably within a week. S/He is expected to explain his research plan thoroughly.

vi-Further requirements for thesis and graduation are outlined in "Lisansüstü Öğretim Yönetmeliği".

6- Prior to appoint of a Ph.D thesis jury, the candidate must have:
(a) At least one paper published (or accepted) related to his/her thesis research field in SCI/SCIE journal.

(b) Secured minimum 16 points from the scientific activities described in the list of EMU Academic Assescment Criteria. The distribution of marks for publications is as below:

Type	Points
SCI	**15**
SCIE	**12**
Int. Conference	**5**

Course Code	Course Title	Credit	Lecture Hour (hrs/week)	Lab / Tutorial (hrs/week)
MENG600	Ph.D. Thesis	No-Credit	-	-
REQ1	Required Course	3	3	-
REQ2	Required Course	3	3	-
REQ3	Required Course	3	3	-
REQ4	Required Course	3	3	-
REQ5	Required Course	3	3	-
REQ6	Required Course	3	3	-
REQ7	Required Course	3	3	-
MENG699	Ph.D. Qualifying Exam	No-Credit	-	-

COURSE DESCRIPTIONS

MENG 511 Applied Computational Methods for Engineers (3,0) 3
The course is an applied approach to solve different types of equations that aries in engineering analysis. The course contains: solution of systems of linear algebraic equations, eigen-value problems; nonlinear equations; polynomial approximation, numerical differentiation and integration; ordinary differential equations and partial differential equations.

MENG515 – Multidisciplinary Design Optimization (3,0) 3
Multidisciplinary Design Optimization (MDO) deals with the optimization of several engineering disciplines simultaneously. It provides the opportunity to find the optimal solution of a system accounting for the interactions between the different disciplines. The topics covered include: Introduction to Optimization, Design Architectures, Unconstrained & Constrained Optimization, KKT Conditions, Genetic Algorithm, Particle Swarm Optimization, Simulated Annealing, Multi-Objective & Hybrid Optimization, Design of Experiments, Robust Design & Meta-Modeling, FMEA, VMEA, Post Optimality Analysis.

MENG 522 Fracture Mechanics (3,0) 3
Mechanism of fracture and crack growth. The elastic crack-tip stress field, the crack-tip plastic zone. The energy principle; energy release rate, criterion for crack growth, crack resistance, compliance, J-Integral and tearing modulus. Dynamic fracture mechanics and crack arrest. Plane strain fracture toughness, plane stress and transitional behaviour. Elastic-plastic fracture, fatigue crack propagation, fracture resistance of materials. Application of fracture mechanics. Prediction of fatigue crack growth.

MENG 525 Elasticity (3,0) 3
Analysis of stress and strain. Constitutive equations. Plane problems of elasticity. Torsion and flexure of beams. Variational methods, theorems of minimum potential energy and complementary energy. Approximate solution by means of variational methods. Introduction to plate theory.

MENG 533 Advanced Mechanical Vibrations (3,0) 3
1D Wave examples (strings), Sound in fluids, Acoustic impedance, Source energy, intensity and power, Sources, reciprocity, Green's functions, etc., Sound absorption and absorbing materials, Sound in waveguides, mufflers and silencer, Sound in enclosures

MENG 541 Advanced Thermodynamics (3,0) 3
The first and second laws of thermodynamics. The two laws combined: the destruction of energy. Energy generalized. Single-phase, multiphase and chemical reactive systems. Refrigeration and power generation. Thermodynamic design.

MENG 542 Components of Energy Systems (3,0) 3
Piping systems, Heat exchangers, Prime movers, pumps, fans, nozzles, turbines, modeling and simulation, Steady-state simulation, Transient simulation, System optimization and risk analysis, Uncertainty analysis, Fluid transients.

MENG 544 Advanced Heat Transfer (3,0) 3
Conservation principles; mass, momentum and energy. Fluid stresses and flux laws; boundary layer theory and the integral equations of the boundary layer. Momentum and heat transfer in laminae in external and internal flow. Momentum and heat transfer in turbulent external and internal flow; natural convection.

MENG 545 Transport Phenomena (3,0) 3
Heat, mass and momentum transfer with emphasis on the analogies between them. Introduction to transport phenomena. Heat, mass and momentum diffusivities. The balance or conservation concept. One and more dimensional balance equation. Steady-state transport. Transport with a net convection flux. Fluid flows in duct. Heat and mass transfer in duct flow. Unsteady-state transport. Transport coefficient.

MENG 546 Advanced Internal Combustion Engines (3,0) 3
Review of basic principles of engine operation. Thermo-chemistry and properties of engine working fluids. Thermodynamic analysis of engine processes. Mathematical modeling and simulation of engine processes and cycles. Study of various engine schemes.

MENG 547 Energy Management and Utilization (3,0) 3
Energy consumption, conservation and resources. Energy audits, economic analysis. Management and organization of conservation programs. Analysis of thermal-fluid systems. Energy conservation in combustion systems, steam and condensate systems. Heat exchangers, heat recovery and insulation. Energy conservation in industrial system, industrial cogeneration. Power circuits, electrical machinery, electrical energy conservation. Industrial energy use profiles.

MENG 548 Power Generation Systems (3,0) 3
Thermal power plants, steam power plants, solar thermal power plants, Organic Rankine Cycle, Gas Turbines, Carbon dioxide power cycles, Diesel power plants, Other power generating systems, Economic analysis of power plants, power plant simulation and performance analysis.

MENG 551 Advanced Fluid Mechanics (3,0) 3
Fundamentals equations, flow kinematics and special forms of governing equations. Two-dimensional potential flow, three-dimensional potential flow. Viscous flow: incompressible flow and compressible flow of fluids.

MENG 555 Computational Fluid Dynamics (CFD) (3,0) 3
Introduction, vector and tensor algebra; Governing equations; Equilibrium equations; Diffusion equation; Euler equation; Advection equations; advection-diffusion equation; boundary and initial conditions; Permeative and stream function-vorticity approach; Approximate methods. Finite difference, weighted residual-finite elements, finite volume; Accuracy and error analysis, Higher order schemes; Staggered grid concept; Pressure correction schemes; Flow in porous media, turbulent flow modeling.

MENG 559 Transport Phenomena in Porous Media (3,0) 3
Emphasis on the principle of mechanics of fluid flow through a porous medium, (continuity equation, momentum equation with its extensions), heat transfer through a porous meduium (energy equation with its extensions to more complex situation), mass transfer, force convection, external natural convection, internal natural convection and mixed convection in a porious medium and their application for solving engineering problems.

MENG 561 Manufacturing Systems Engineering (3,0) 3
CAD/CAM Hardware; CAD/CAM software, Integrative manufacturing Planning and control, Group Technology, Computer Integrated manufacturing (CIM), Modeling methodologies and analysis tools for CIM, Systems analysis and design methods, Computer Assisted Systems Engineering (CASE).

MENG 562 Advanced CAD/CAM (3,0) 3
Principles of CAD, Mathematical theory of graphics, Principles of geometric modeling, Terminology of bezier curves, B splines and NURBS, Parametric representation of curves and surfaces; Principles of NC technology and its components, Adaptive control technology, Necessities and types of precise tooling in NC based manufacturing, Advanced methods for NC program of instructions, Information requirements of manufacturing, Role of group technology in CAM, Contribution of CAD/CAM and NC technology in advanced manufacturing

MENG 575 Advanced Biomechanics (3,0) 3
Introduction to mechanics and biomechanics; Static, Kinematic and Dynamic concepts for analyzing musculoskeletal joint motion; Joint mechanics; Musculoskeletal tissues and tissue modeling; Biomaterials; Joint prosthesis design and analysis; Implant materials and coating; Musculoskeletal and artificial joint contact and tribology; Software for analyzing human body joints.

MENG 582 Plastic Forming of Metals (Plasticity) (3,0) 3

Stress, Strain, Macroscopic plasticity and yield criteria, Work hardening, Plastic instability, Strain rate and temperature, Ideal work, Slab analysis, Formability, Forming limits, Advanved forming processes

MENG 583 Application of Virtual Reality (VR) in Manufacturing (3,0) 3

Design-Centered Virtual Manufacturing (VM) – part modeling, rapid prototyping, virtual assembly, and prototyping of mechanical systems. Production-Centered VM-shop floor planning, virtual manufacturing cell, virtual manufacturing process. Virtual Machining-constructing a virtual operation, process simulation and prediction, virtual numerical control. VR Instruments-hardware, software, VR programming.

MENG 584 Advanced Manufacturing Processes (3,0) 3

Advanced materials and material Technologies, Materials developed through Space Related Technologies, Advanced processes for plastic forming and casting; Precision machining-sources of error (Thermal, Static, Dynamic, Process Related), Precision machining processes, Vibration and thermal assisted machining, High-speed processing, Application of FEM in machining, Manufacturing of semiconductor devices, Electronic assembly and packaging, Rapid prototyping technologies; Manual and computer assisted part programming, Flexible manufacturing systems [FMS] and Robotics.

MENG 587 Mechanical Behavior of Materials (3, 0) 3

Elastic properties Mechanical tests Micro-plasticity of crystals and plastic deformation Grain boundaries Strain-hardening Creep Strengthening mechanisms(solute-hardening, precipitation-hardening) Fracture-brittle fracture (Griffith theory) Ductile fracture (ductile-brittle transition) Fatigue fracture.

ETHICAL ISSUES

For Ethical Issues Regulations have been laid down by the Research and Publication Ethics Board of EMU and available on (http://bayek.emu.edu.tr/en/regulations , http://ww1.emu.edu.tr/en/research/research-and-publication-ethics-board/1448)

Ethical Principles in Science and Arts

Honesty, self-criticism, objectivity and fairness, openness, scientific skepticism, critical view, openness to new concepts, protection of scientific research discipline, unique and creative thinking, respect for others' efforts and products, and sensitivity towards the nature and the rights of the living form the basis for Eastern Mediterranean University's ethics related with science and arts. The application of all types of scientific research, art-related work, and any other related activities encompasses the following principles in the University:

(1) **Research Ethics Basic Principles**

a. **The Principle of Being Scientific:** Data is collected through scientific methods. During the phases of the evaluation and interpretation of the data and obtaining theoretical outcomes, the researcher does not deviate from scientific methods or procedures or change the outcomes. The researcher cannot present any research findings that have not been obtained.

b. **The Principle of Nonmaleficence: The Act of Respect for "the Living" and Protection of the "Participants" in Scientific Research:** The principle of nonmaleficence requires us that no harm is inflicted on the subjects, participants and respondents or natural or cultural assets that are the focus of the artistic activity or research. The participants and respondents should directly be informed of the possible risks and the researcher/s should endeavor to ensure that the decision of participating in the experiment/research is taken independently without coercion as required by the principle of the informed consent. Regarding research involving human data, the participants should be informed on the use, confidentiality and sharing of the data and their consent should be obtained, accordingly.

c. **The Principle of Informing and Warning the Public and the Concerned about Applications Containing Possible Risks/Harm:** Researchers, artists and officials undertake the responsibility of informing and warning the public about the outcomes and related possible harmful applications of the scientific research and artistic work under discussion.

d. **The Principle of Freedom in Research Publication:** Researchers have a right, as well as responsibility, to refrain from undertaking or continue undertaking any research or declarations that would, according to their understanding, yield harmful outcomes or involve applications not approved by them. No researcher can be forced to defend, publicly verbalize or declare a specific opinion, thought or action.

e. **The Principle of Academic Freedom of Research:** Unless a misconduct in the ethical principles specified in these regulations occurs, any attempts of research or artistic work cannot be interfered or prevented. In return, keeping in mind the budgetary application principles of the University and topics which require regional or global sensitivity, researchers and artists act carefully and responsibly in determining their research topics and methods.

f. **The Principle of Responsibility towards Society and Humanity:** On the condition that intellectual rights and copyright are reserved, scientific research and artistic research are public domains, owned by the public as well as the researchers. Hence, the content of the research and artistic work that are

beneficial for the society, humanity and the environment cannot be hidden, altered, distorted or forbidden.

g. **Joint and Individual Responsibility Principle:** Researchers and artists are responsible for adhering to these principles both individually and jointly. The University community takes the protection of these principles as a basis for its existence.

(2) **Basic Principles of Publication Ethics**

a. Findings of any scientific research are published with the inclusion of the names of all those researchers who actually carried out the research. Names of those individuals who have not been actively involved in the design, planning, implementation and publication stages of the research are not or cannot be forced to be included in the authors section.

b. In benefitting from research that has never been published or previously published, the source should be indicated in accordance with the scientific publication rules. Apart from universal scientific theories, math theorems and their proofs, neither the translation nor the original version of any scientific work can be published as a whole or partially without getting any approval or citating the main source.

c. Names of the institutions or individuals who provide active support in the research are explicitly referred to in the publications. In this respect, the name of the institution where most of the research has been carried out has to be referred to even if the researcher is no longer a member of it.

Ethical Misconduct and Ethical Negligence

Actions Involving Ethical Misconduct or Ethical Negligence

Ethical principles for scientific research form the basis for the evaluation of the applications for actions including "ethical violation" or "ethical negligence". Additionally, the classification of the actions including "ethical misconduct" or "ethical negligence" in terms of publication ethics takes place in accordance with the following definitions:

(1) **Plagiarism**

a. Piracy: Obtaining someone else's printed or electronic version of work or applications of art and presenting them under one's own name without giving appropriate credit;

b. Presenting others' research findings or ideas and applications simply by using different words or expressions or by changing part of it without giving credit;

c. Submitting or presenting part of someone else's printed or electronic version of work as your own, without giving any reference as required by academic publication rules;

d. Presenting someone else's ideas, findings and artistic applications as one's own, without making any appropriate attributions in a manner that would leave no room for suspicion and that is parallel with the original source or the artistic applications;

e. Failing to present others' ideas, findings and artistic applications in a manner that would show that they are citations;

f. Failing to provide information regarding the source of the quote or providing partial information regarding the source..

(2) **Fabrication:** Claiming either to have carried out research which has not been carried out and/or claiming to have obtained results based on research which has not been carried out.

(3) **Falsification:**

a. Making deliberate or intentional alterations on the methods or findings of research and applications;
b. Presenting research and applications in a different way that would violate the integrity of the research and applications;
c. Making a false claim of using a research material and/or tool that have not been involved in the research;
d. Presenting the research process in a different way than the original, leading to changes in the research process and qualities of the process;
e. Deliberately altering research data and records;
f. Violating the By-law for Ideas and Work of Art.

(4) **Duplication:** Publishing (or submitting for publication) the same article or its translated version in more than one journal without attributing to the previous versions. However, in case of situations such as the publication content being related with multiple areas of expertise or the publication being beneficial if it is published in a different language, the duplication would be acceptable within the framework of certain rules and regulations. In situations as such, consent of both publisher should be obtained and bibliographic information about the first publication should be provided in the second publication.

(5) **Salami Slicing:** Publishing the findings of the research in least publishable units within multiple articles although it is possible to publish them in a single article without damaging the unity and the integrity of the research.

(6) **Failure to Acknowledge the Supporters/Contributors:** Failure to clearly acknowledge the support of any individuals, institutions or establishments in the research.

(7) **Ghost Authorship, Fabricating or Falsifying the Author**

a. Addition of the names of the person/s who do not have any active contributions to the research and/or publication into the list of authors due to their title or position;
b. Addition of the names of person/s who have not contributed to the research significantly or actively into the list of authors; or the addition of a new author (authors) by giving credit for contributions that would not conform with authorship;
c. Omission of the names of the co-researchers or authors who have significantly contributed to the research and/or article;
d. Changing the order of the authors without any reasons or in an appropriate way;
e. Translating books, articles etc. written in a foreign language and publishing them as one's own work..

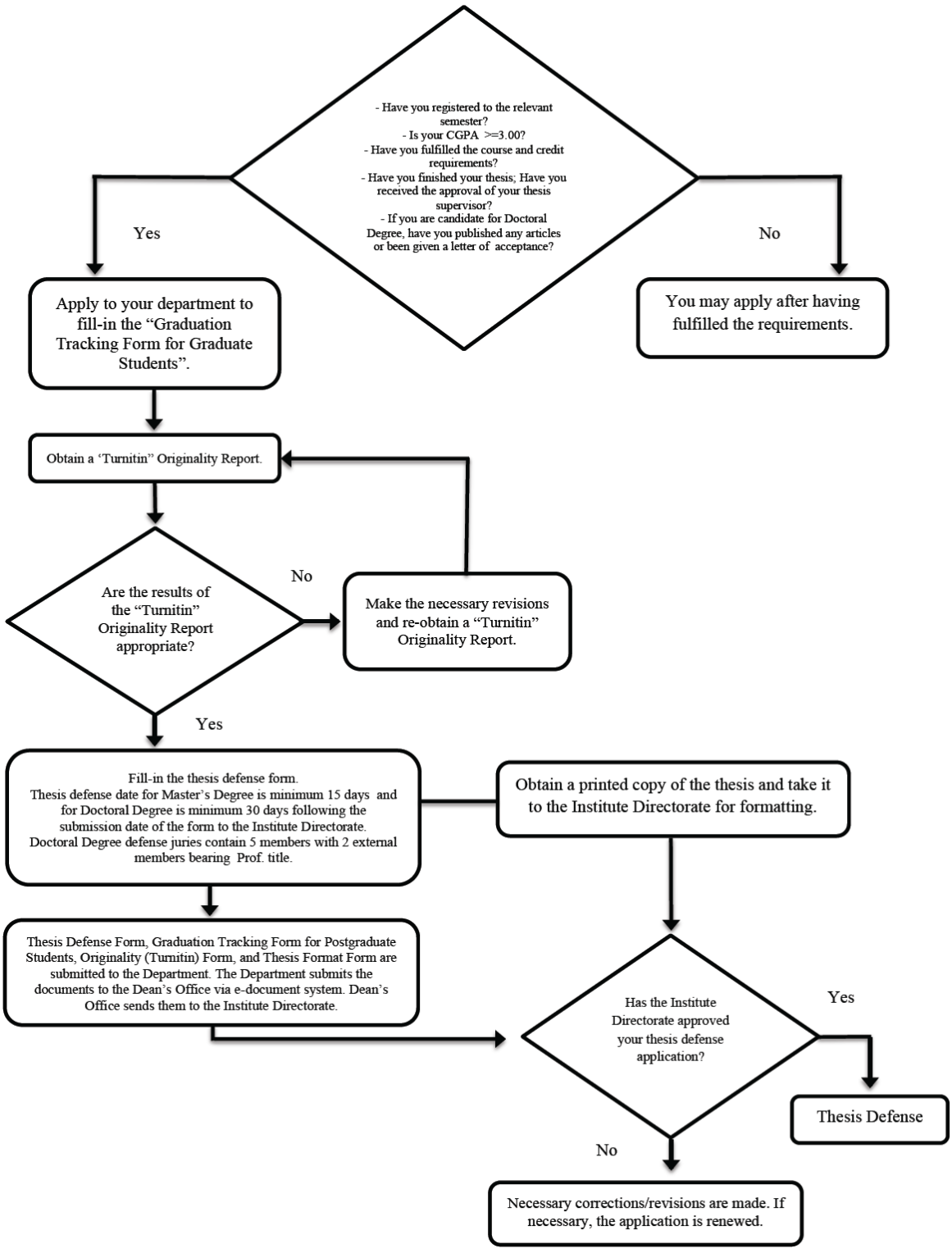
MAJOR MILESTONES for EACH SEMESTER

Semester	Master with Thesis	PhD. Program
Semester 1	Course registration Priority should be given to Deficiency / English Support program courses if given*	Course registration Priority should be given to Deficiency / English Support program courses if given*
Semester 2	Course registration Priority should be given to Deficiency / English Support program courses if given*	Course registration Priority should be given to Deficiency / English Support program courses if given*
Semester 3	Course, seminar (if not completed yet) and thesis registration Last semester to assign a supervisor and submit the thesis proposal (*latest by the course add/drop period*)	Course and thesis registration Last semester to assign a supervisor and submit the preliminary thesis proposal (*latest by the course add/drop period*)
Semester 4	Course and thesis registration The last term to defend thesis for full-time students who will graduate at the end of the regular duration End of the regular duration for full-time students	Course and thesis registration Last semester to pass all required courses (at least 7 courses) for full-time and part-time students
Semester 5	Full-time students should apply for one semester "extension" (online application via student portal) Course (if not completed yet) and thesis registration	Qualifying exam and thesis registration
Semester 6	Full-time students should apply for one semester "extension" (online application via student portal) Course (if not completed yet) and thesis registration The last term to defend thesis for full-time students who will graduate at the end of the extended terms End of the extensions for full-time students (all courses and thesis should be completed with a minimum CGPA of 3.00) End of the regular duration for part-time students	Thesis registration If the student passed the qualifying exam, Thesis Monitoring Committee should be assigned The thesis proposal should be defensed at least one month after assignment of Thesis Monitoring Committee
Semester 7	Part-time students should apply for one semester "extension" (online application via student portal) Course (if not completed yet) and thesis registration	Thesis registration Defense in front of Thesis Monitoring Committee
Semester 8	Part-time students should apply for one semester "extension" (online application via student portal) Course (if not completed yet) and thesis registration The last term to defend thesis for part-time students who will graduate at the end of the extended terms End of the extensions for part-time students (all courses and thesis should be completed with a minimum CGPA of 3.00) End of the regular duration for part-time students	Thesis registration Defense in front of Thesis Monitoring Committee
Semester 9	-	Thesis registration Defense in front of Thesis Monitoring Committee

MAJOR MILESTONES FOR EACH SEMESTER

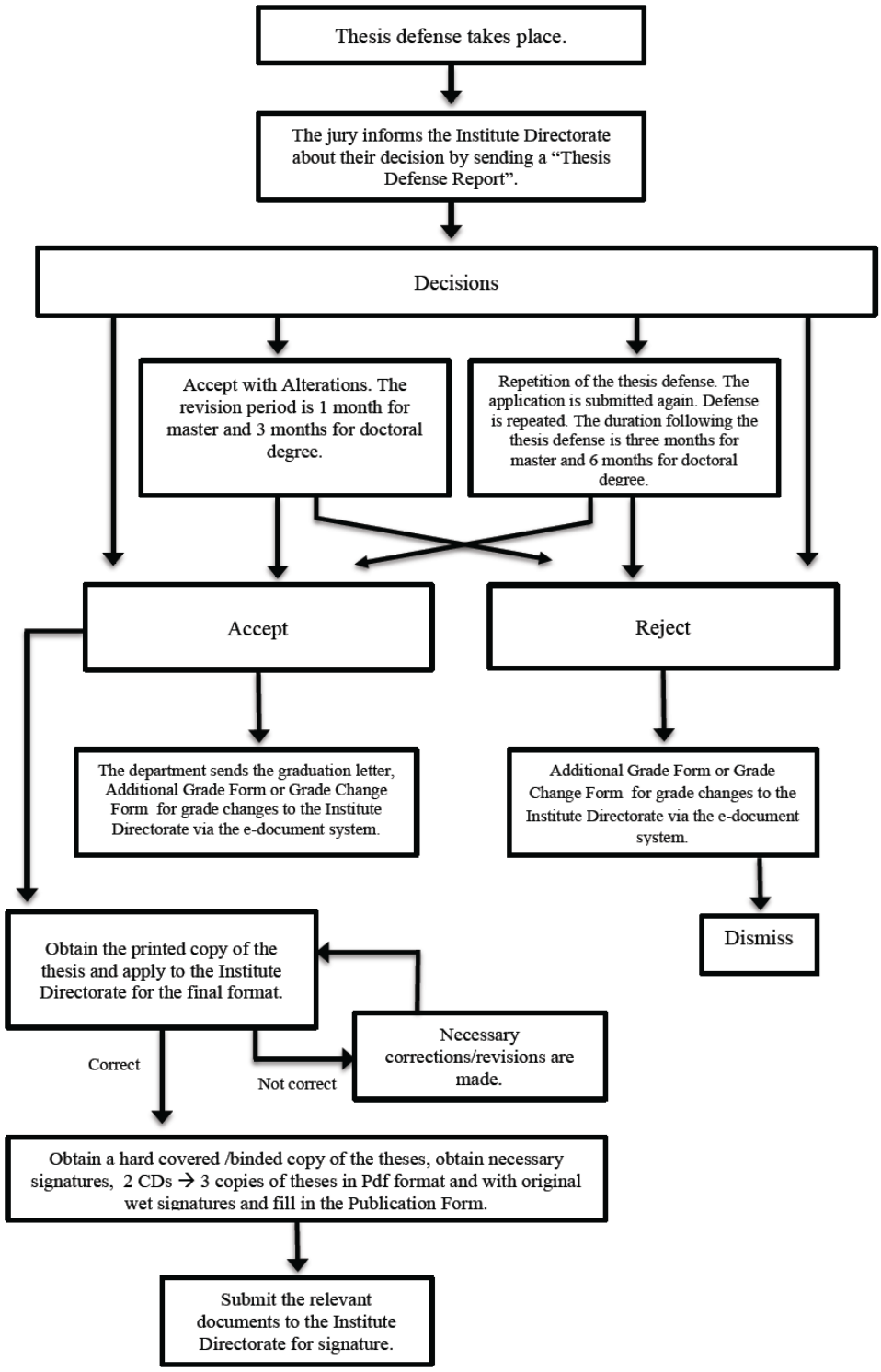
Semester 10	-	Thesis registration The last term to defend thesis for full-time students who will graduate at the end of the regular duration. Otherwise, defense in front of Thesis Monitoring Committee End of the regular duration for full-time students
Semester 11	-	Full-time students should apply for one semester "extension" (online application via student portal) Thesis registration Thesis defense or Monitoring Committee
Semester 12	-	Full-time students should apply for one semester "extension" (online application via student portal) Thesis registration The last term to defend thesis for full-time students who will graduate at the end of the extended terms End of the extensions for full-time students to complete all requirements (all courses, qualifying exam, thesis and publication) with a minimum CGPA of 3.00 If a full-time student completes all courses, submits thesis to IGSR and sends his/her article to a scientific journal for publication, he/she can apply for an "Awaiting Publication" status for at most five academic years, at the end of 10th, 11th or 12th terms
Semester 13	-	Part-time student: Thesis registration Thesis defense or Monitoring Committee
Semester 14	-	Part-time student: Thesis registration The last term to defend thesis for part-time students who will graduate at the end of the regular duration. Otherwise, defense in front of Thesis Monitoring Committee End of the regular duration for part-time students
Semester 15		Part-time students should apply for one semester "extension" (online application via student portal) Thesis registration, Thesis defense or Monitoring Committee
Semester 16		Part-time students should apply for one semester "extension" (online application via student portal) Thesis registration The last term to defend thesis for part-time students who will graduate at the end of the extended terms. End of the extensions for part-time students to complete all requirements (all courses, qualifying exam, thesis and publication) with a minimum CGPA of 3.00. If a part-time student completes all courses, submits thesis to IGSR and sends his/her article to a scientific journal for publication, he/she can apply for an "Awaiting Publication" status for at most five academic years, at the end of 14th, 15th or 16th terms

THESIS DEFENSE PROCEDURE



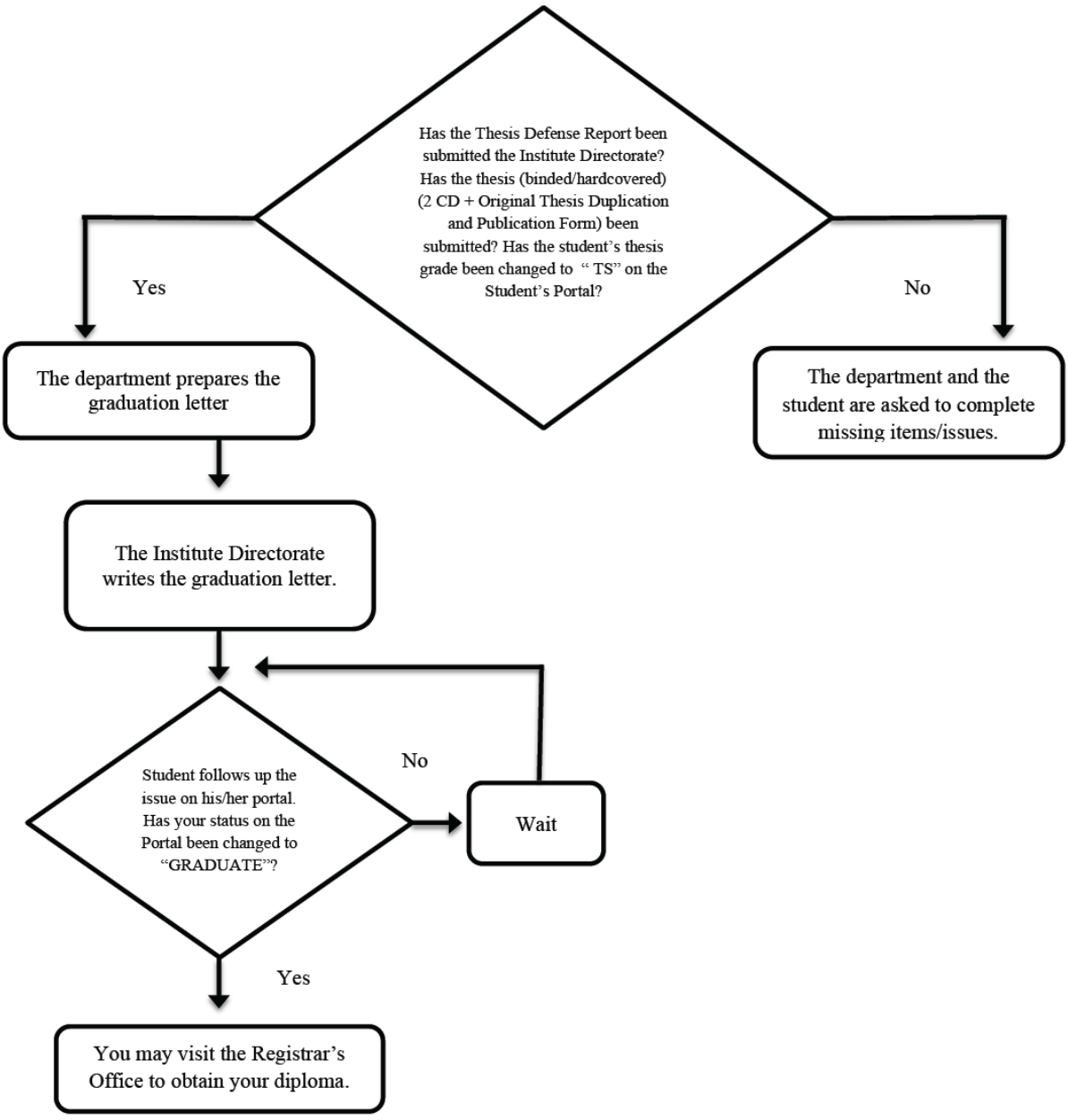
http://grad.emu.edu.tr/en/academic-issues/theses

POST THESIS DEFENSE PROCEDURE



http://grad.emu.edu.tr/en/academic-issues/theses

GRADUATION PROCEDURES



http://grad.emu.edu.tr/en/academic-issues/theses

FORMS

The following forms are available at http://grad.emu.edu.tr/en/academic-issues/forms
Registration Forms
Course Registration Form

Jury Appointment Forms
Authorization Request to Schedule a Ph.D. Qualifying Examination
Thesis Monitoring Committee Appointment Form

Student Status Forms
Request for Extension of Duration
Leave of Absence Application Form
Status Change Form
Application Form for Waiting for Publication Status

Jury Report Forms
Ph.D. Qualifying Examination Report
Thesis Monitoring Committee Decision Form
Jury Report for the Thesis Defense Form

Supervision Forms
Advisor Appointment form
Supervisor Co-Supervisor Change Form
Supervisor Co-Supervisor Appointment Form

Thesis Related Forms
Thesis-Project Grade Change Form
Master Thesis Proposal Form
PhD Thesis Preliminary Proposal Form
Thesis Subject Change Form
PhD Thesis Proposal Form
Thesis/Dissertation Duplication and Publication Approval Form
List of forms required for MS-PhD Graduation

Other Forms
Research Assistant Request Form, Arastirma Gorevlisi Talep Formu
Additional Grade Form
New Graduate Course Proposal Form
Program Change Form
New Program Proposal Form
Graduate Course Offer Form
Graduate Course Revision or Termination Form

Forms Required for forming Master's Jury
Authorization Request to Schedule a Master's Thesis Defense Form
Form for Tracking Graduate Students' Graduation Procedures
Thesis Format Evaluation Form

Forms Required for forming Ph.D Jury
Authorization Request to Schedule a Ph.D. Thesis Defense Form
Form for tracking graduate students graduation procedures
Thesis Format Evaluation Form

Forms Required After MS/PhD Jury
Jury Report for the Thesis Defense Form
Seminar-thesis-project grade change form
Thesis Duplication and Publication Approval Form