

INFORMATION ON THE INDUSTRY ENGINEERING DOCTORATE PROGRAM

General Information	TOBB ETÜ Industrial Engineering Program, founded in 2005 gave its first graduates in 2009. Master's Degree in Industrial Engineering program has been founded in the year 2008 and Ph.D. program is started in the year 2011. There are currently 9 faculty members in the department. The faculty does research mostly in the areas of optimization, stochastic models, statistics, logistics, supply chain, scheduling, energy systems. The quotas for funded and not-funded master students are determined by the Institute of Natural Sciences of TOBB ETU.
Program Purpose	The objective of the Ph.D. in Industrial Engineering at TOBB ETU is to train industrial engineers who will either continue conducting research, lead R&D projects in industry or start their own technology companies to turn innovative ideas into products, make contributions to the state-of-the-art, and disseminate scholarly work in scientific conferences and journals
Degree Earned	Ph.D.
Level of Degree Earned	Doctorate Level
Requirements and Rules of the Degree Earned	Thesis programme - At least 7 courses with a total of 21 credits + Ph.D. thesis (no credit) +FBE600 - Scientific Research Techniques and Ethics course + Qualification Exams + Requirements by YÖK and TOBB ETÜ rules and regulations :::
Registration Admission Requirements	1. A minimum grade of 55 from the Akademik Personel ve Lisansüstü Eğitimi Giriş Sınavı (ALES). GRE (Graduate Record Examinations) and GMAT (Graduate Management Admission Test) grades are also acceptable. 2. A minimum grade of 50 from UDS. TOEFL, IELTS and KPDS grades are also acceptable 3. Students are evaluated by faculty members through interviews. 4. Candidates should get at least 55 points. Total grade is calculated as follows: ALES 50%, GPA 25%, Interview 25%.
Recognition of Prior Learning	A student can substitute courses taken in a quitted previous graduate education program. The substitution of the courses taken in a previous program, its equivalency and suitability with the courses in the program are evaluated at the
Examinations, Assessment and Grading	Courses with credits have their own evaluation criteria. Seminar course is graded bu G (pass) - K (fail) grade. The thesis is evaluated by a committee of three faculty members through the written thesis and its oral presentation.
Teaching Style	Day time - in class
Graduation Requirements	To complete the requirements of the degree and A CGPA of at least 3.00/4.00.
Occupational Profiles of Graduated-Employment Opportunities	A great majority of our graduates can find a job within 6 months of graduation.
Transition to a Upper Degree	Not Applicable

NQF-HETR PROGRAM QUALIFICATION MATRIX				PROGRAM QUALIFICATIONS														
Program : Industry Engineering				1	2	3	4	5	6	7	8	9	10	11	12			
Related NQF-HETR Core Field: Engineering (Academic) - Doctorate																		
CORE AREA QUALIFICATIONS	INFORMATION	Theoretical - Factual	Understands and applies the basic sciences, mathematics and engineering sciences at a high level.	✓				✓	✓	✓								
			Has extensive and in-depth knowledge including the latest developments in his / her field.										✓	✓				
	SKILLS	Cognitive - Applied	Has access to the most up-to-date information in an area and has a high level of competence in the methods and skills required to comprehend them.										✓	✓				
			Undertakes a comprehensive study that brings innovation to knowledge or technology, develops a new scientific method or technological product / process, or applies a known method to a new field.										✓		✓			
			Ddeviates and applies basic sciences, mathematics and engineering sciences at a high level.	✓				✓	✓	✓								
			Has extensive and in-depth knowledge including the latest developments in his / her field.											✓	✓			
			Perceives, designs, implements and concludes the original research process independently; it manages this process.		✓			✓	✓									
			COMPETENCIES	Ability to work independently and to take responsibility	Contributes to the science and technology literature by publishing the outputs of his academic studies in a prestigious academic setting.	✓		✓	✓									
	Undertakes a comprehensive study that brings innovation to knowledge or technology, develops a new scientific method or technological product / process, or applies a known method to a new field.					✓							✓		✓			
	Ttransfers scientific, technological, social and cultural developments to the assembly with the awareness of scientific impartiality and ethical responsibility.						✓											
	Learning Competence			Perceives, designs, implements and concludes the original research process independently; it manages this process.		✓			✓	✓								
				Has access to the most up-to-date information in an area and has a high level of competence in the methods and skills necessary to comprehend them.										✓	✓			
				Undertakes a comprehensive study that brings innovation to knowledge or technology, develops a new scientific method or technological product / process, or applies a known method to a new field.			✓							✓		✓		
				Contributes to the science and technology literature by publishing the outputs of his academic studies in a prestigious academic setting.	✓		✓	✓										
	Communication and Social Competence			Makes critical analysis, synthesis and evaluation of ideas and developments in the field of expertise.						✓					✓			
				Communicates effectively with the professionals and the wider scientific and social communities in writing and verbal communication and communicate and discuss advanced written, oral and visual communication using a foreign language at least at the European Language Portfolio C1 General Level.			✓											
				Evaluates scientific, technological, social and cultural developments and conveys the gathering with the consciousness of scientific impartiality and ethical responsibility.				✓										
	Field Specific Competence			Interacts effectively with staff in the field of expertise and wider scientific and social communities in written and oral communication and communicate and discusses advanced written, oral and visual communication using a foreign language at least at the European Language Portfolio C1 General Level.			✓											

Not: 1 (Az) 2 (Orta) 3 (Çok)

Program Qualifications

1	Ability to conduct literature review, prepare and deliver academic presentations and write articles in academic journals
2	Ability to work independently, to take responsibility, and to function effectively as a member or a leader in intra- and multi-disciplinary teams, and to develop solutions in complicated situations.
3	Ability to communicate effectively in both national and international arenas verbally and in writing.
4	Adherence to societal, scientific, and ethical values in all professional activities including collection of data, interpretation of results, and dissemination of outputs.
5	Ability to use mathematics and engineering science in advanced research.
6	Ability to develop original ideas and scientific methods, to offer innovative solutions for engineering systems, devices, processes or designs
7	Ability to complete and apply knowledge through scientific methods, using limited or incomplete information; to integrate and apply knowledge from different disciplines
8	Ability to design and conduct theoretical or experimental research and to analyze and solve complex problems faced during the research.
9	Awareness of social, environmental, health, safety, legal implications of and constraints for engineering applications
10	In-depth knowledge in contemporary methods and techniques in Industrial Engineering
11	Ability to access information in Industrial Engineering and to evaluate, interpret and apply this information
12	Ability to formulate and solve problems in the area of Industrial Engineering, and to develop and apply innovative methods for solving these problems.

All Courses in the Program		Program Qualifications											
Code	Course Name	1	2	3	4	5	6	7	8	9	10	11	12
END 651	Advanced Stochastic Processes	5				5	4				3	3	3
END 673	Reliability Theory	3				5	3	2			5	3	4