	PhD in MANUFACTURING ENGINEERING PROGRAM OUTCOMES	NATIONAL QUALIFICATIONS OF RELATED FIELD*																																					
		ENGINEERING																		PRODUCTION AND BUSINESS																					
		A1	A2	B1	B2	B3	B4	B5	C1	C2	C3	D1	D2	D3	D4	E1	E2	F1	F2	A1	A2	B1	B2	B3	B4	B5	C1	C2	C3	D1	D2	D3	D4	E1	E2	F1	F2
1	Develop and deepen the current and advanced knowledge in the field with original thought and/or research and come up with innovative definitions based on Master's degree qualifications		x		x			x				x	x			x					x		x			x				x	x			x				
2	Conceive the interdisciplinary interaction which the field is related with ; come up with original solutions by using knowledge requiring proficiency on analysis, synthesis and assessment of new and complex ideas.		x				x														x				x													
3	Evaluate and use new information within the field in a systematic approach.		x	x			x														x	x			x													
4	Develop an innovative knowledge, method, design and/or practice or adapt an already known knowledge, method, design and/or practice to another field; research, conceive, design, adapt and implement an original subject.				x			x		x		x		x									x			x		x		x								
5	Critical analysis, synthesis and evaluation of new and complex ideas.										x					x		x											x					x		x		
6	Gain advanced level skills in the use of research methods in the field of study.	x		x		x														x		x		x														
7	Contribute the progression in the field by producing an innovative idea, skill, design and/or practice or by adapting an already known idea, skill, design, and/or practice to a different field independently.				x			x		x				x									x			x		x			x							
8	Broaden the borders of the knowledge in the field by producing or interpreting an original work or publishing at least one scientific paper in the field in national and/or international refereed journals.								x						x												x						x					
9	Demonstrate leadership in contexts requiring innovative and interdisciplinary problem solving.				x			x		x		x		x									x			x		x		x								
10	Develop new ideas and methods in the field by using high level mental processes such as creative and critical thinking, problem solving and decision making.			x	x					x			x	x								x	x				x			x	x							
11	Investigate and improve social connections and their conducting norms and manage the actions to change them when necessary.										x						x		x										x					x			x	
12	Defend original views when exchanging ideas in the field with professionals and communicate effectively by showing competence in the field.																x	x	x															x	x		x	
13	Ability to communicate and discuss orally, in written and visually with peers by using a foreign language at least at a level of European Language Portfolio C1 General Level.																x		x															x			x	
14	Contribute to the transition of the community to an information society and its sustainability process by introducing scientific, technological, social or cultural improvements.										x							x											x							x		
15	Demonstrate functional interaction by using strategic decision making processes in solving problems encountered in the field.		x								x							x			x								x							x		
16	Contribute to the solution finding process regarding social, scientific, cultural and ethical problems in the field and support the development of these values.										x							x											x							x		

* Please check **http://tyyc.yok.gov.tr/** for the list of national qualifications.

A: KNOWLEDGE, Theoretical & Factual

B: SKILL, Cognitive & Applied

C: COMPETENCY, Working Independently & Taking Responsibility

D: COMPETENCY, Ability to Learn

E: COMPETENCY, Communication & Social Competencies

F: COMPETENCY, Field Specific