

PhD in MATERIALS SCIENCE AND NANO ENGINEERING PROGRAM OUTCOMES		NATIONAL QUALIFICATIONS OF RELATED FIELD*																
		ENGINEERING																
		A1	A2	B1	B2	B3	B4	B5	C1	C2	C3	D1	D2	D3	D4	E1	E2	F1
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		
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											
3	Evaluate and use new information within the field in a systematic approach.		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				
5	Critical analysis, synthesis and evaluation of new and complex ideas.										x					x		x
6	Gain advanced level skills in the use of research methods in the field of study.	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					
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				
9	Demonstrate leadership in contexts requiring innovative and interdisciplinary problem solving.				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				
11	Investigate and improve social connections and their conducting norms and manage the actions to change them when necessary.										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
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
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
15	Demonstrate functional interaction by using strategic decision making processes in solving problems encountered in the field.		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

* 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