THE RELATIONSHIP BETWEEN BASIC FIELD QUALIFICATIONS - PROGRAM QUALIFICATIONS - THE QUALIFICATIONS FRAMEWORK FOR HIGHER EDUCATION IN TURKEY[1]

Basic Field Qualifications (Engineering- Level 7)			PROGRAM QUALIFICATONS										**Qualifications Framework for Higher Education in Turkey** (Level 7)		
			1	2	3	4	5	6	7	8	9	10			
KNOWLEDGE	1. Reach expanded and in-depth information performing scientific research in engineering, evaluate, interpret and apply the information.		X										1. Based on the undergraduate studies qualifications, develop and deepen the knowledge acquired in the field as well as in other fields at the expert level.		KNOWLEDGE
	2. Possess extensive knowledge of engineering techniques, methods, and their respective restrictions.			X		X							2. Understand the interdisciplinary interactions among associated fields.		
	3. Complete and apply information using scientific methods with limited or uncompleted data; integrate information from different disciplines.			X											
	4. Be aware of the new and developing applications; examine and learn them as required.									X					
SKILLS	1. Complete and apply information using scientific methods with limited or uncompleted data; integrate information from different disciplines.			X			X						1. Use the expert level theoretical and practical knowledge in the field.		SKILLS
	2. Devise engineering problems, develop methods to solve them and apply technological advancements in these solutions.			X	X								2. Interpret and produce new information by integrating the knowledge acquired in the field with information generated in other fields.		
	3. Develop new and original ideas and methods, generate innovative solutions for the design of a system, a component, or a process.				X								3. Solve problems faced in the field using research methods.		
	4. Design and apply analytical model based research and experimental research; solve and interpret complex situations faced during this process.			X			X								
COMPETENCIES	Competence work independently and take responsibility	1. Show leadership in multi-discipline teams, develop solutions to complex situations and take responsibilities.						X					1. Conduct independent studies that require expertise in the field.	Competence work independently and take responsibility	COMPETENCIES
		2. Reach expanded and in-depth information performing scientific research in engineering, evaluate, interpret and apply the information.	X X										2. Take leadership as an individual or as a team member towards solving practical problems and complex issues in the field.		
		3. Complete and apply information using scientific methods with limited or uncompleted data; integrate information from different disciplines.		X				X					3. As the leader of the team, plan and direct the members of the project team for their Professional developments.		

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COMPETENCIES		4. Devise engineering problems, develop methods to solve them and apply technological advancements in these solutions.			X									COMPETENCIES
		5. Develop new and original ideas and methods, generate innovative solutions for the design of a system, a component, or a process.												
		6. Design and apply analytical model based research and experimental research; solve and interpret complex situations faced during this process.				X								
	Competence to learn	1. Aware of the new and developing applications in the profession, investigate and learn them when needed.						X	X			1. Critical evaluation of the acquired knowledge and skills in the field and direct its learning.	Competence to learn	
		2. Complete and apply information using scientific methods with limited or uncompleted data; integrate information from different disciplines.		X										
		3. Devise engineering problems, develop methods to solve them and apply technological advancements in these solutions.			X									
		4. Develop new and/or innovative solutions in the design of a system, a component, or a process.												
	Communications and social competence	1. Communicate verbally and in written at least one foreign language at European Language Portfolio Level B2..									X	1. Transfer the recent developments and own studies in the field in writing, verbally, and visually systematically to groups inside and outside the field.	Communications and social competence	
		2. Disseminate the process and results of studies to national and international environments verbally or in written clearly and in a systematic way in the field and outside the field.								X	X	2. Investigate, develop, and make changes as needed social relationships and norms that direct these relationships with a critical view.		
		3. Define the social and environmental aspects of engineering applications.								X		3. Speak and write at least one foreign language at European Language Portfolio Level B2.		
		4. Reach expanded and in-depth information performing scientific research in engineering, evaluate, interpret and apply the information.	X									4. Utilize advaced computer software and information and communication technologies in the field at the desired level of expertise.		

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COMPETENCIES		5. Make up for the information and apply it using scientific methods with limited or uncompleted data; integrate information from different disciplines.		X											
		6. Devise engineering problems, develop methods to solve them and apply technological advancements in these solutions.			X										
		7. Have extensive knowledge of engineering techniques, methods, and their restrictions.				X									
		8. Design and apply analytical model based research and experimental research; solve and interpret complex situations faced during this process.					X								
COMPETENCIES	Competence related to the field	1. Consider the scientific, social and ethical values in the collection, interpretion, and announcements of data and in all professional activities.									X X	1. Audit and teach collection, interpretion, application and announcements of data in the field while observing cultural, ethical, scientific, and social values.	Competence related to the field	COMPETENCIES	
		2. Make up for the information and apply it using scientific methods with limited or uncompleted data; integrate information from different disciplines.		X								2. Develop strategic, political, and application plans and evaluate produced solutions within the quality framework in the field.			
		3. Show leadership in multi-discipline teams, develop solutions to complex situations and take responsibilities.		X			X					3. Utilize the knowledge, problem solving and/or application skills grasped in the field in interdisciplinary studies.			
		4. Disseminate the process and results of studies to national and international environments verbally or in written clearly and in a systematic way in the field and outside the field.									X				

[1] Combined matrix is formed by the combination of Basic Field Qualifications (blue colored zone on left side) - Program Qualifications and Qualifications Framework for Higher Education in Turkey (pink colored zone on right side). Individual remarks (X) pertinent to each zone are given with the same color of the zones.