

PHD

PEO 1	Capable of integrating concepts, theories, methods, and current knowledge to conduct high-quality research that benefits both the local and global community
PEO 2	Field experts who are skilled in critically and accurately analyzing problems and capable of exploring creative and innovative solutions using the latest digital platforms
PEO 3	Field experts who practice professional, sustainable, and ethical values in fulfilling responsibilities to employers, society, and the nation
PEO 4	Possess effective and confident communication skills in conveying knowledge orally and in writing and be able to apply entrepreneurial mindsets and skills in research work
PEO 5	Capable of generating new knowledge through high-performance research and cross-disciplinary collaboration that impacts the socio-economic development and sustainability of society and the nation.

USM uses 11 programme learning outcomes (PLO) (updated 2024) across school to describe the general and specific knowledge, skills, attitudes, and abilities that students should demonstrate upon graduation according to the sequence of MQF (2024) learning domains. Therefore, the PLO are set as follows:

PLO1: Integrate significant knowledge by using appropriate approaches to address current critical issues and generate original and impactful contributions to the relevant fields.

PLO2: Critically analyse and synthesize new, complex, and abstract ideas and solve contemporary issues through advanced research methods to produce original contributions that meet international standards.

PLO3: Develop original, complex, and specialised research methods and techniques to address emerging problems and create high-quality solutions in the relevant fields with minimal supervision.

- PLO4:** Demonstrate the ability to collaborate cogently with various parties in carrying out research.
- PLO5:** Present research findings, ideas, issues, and solutions clearly, confidently, and effectively to the research community, peers, and society.
- PLO6:** Utilise digital technologies and appropriate software to support, enhance, and justify research findings.
- PLO7:** Validate findings by using analysis that is appropriate to the research methods to ensure that conclusions are accurate and impactful.
- PLO8:** Exhibit intellectual leadership qualities and skills in managing research and related resources.
- PLO9:** Demonstrate commitment to lifelong learning and personal development in shaping future directions within the related field.
- PLO10:** Apply entrepreneurial skills to identify opportunities and implement innovative projects in related research.
- PLO 11:** Comply with safety rules and instructions, ethics and professionalism, and sustainable practices as well as identify the related issues for research advancement in the field and their impact to society.

Matrix of programme learning outcomes against the programme educational objectives

Programme Learning Outcomes (PLO)	Programme Educational Objectives (PEO)				
	PEO1	PEO2	PEO3	PEO4	PEO 5
PLO 1	/				
PLO 2	/				
PLO 3		/			
PLO 4					/
PLO 5				/	
PLO 6		/			
PLO 7		/			
PLO 8			/		
PLO 9					/
PLO10				/	
PLO11			/		