Zarqa University
Skills Matrix
Mathematics Program

Skills VS. Courses

Skills VS. Courses	First Year								Second Year						Third Year												Fourth Year											
	Calculus 1	Calculus 2	Statistics and Probability	General Physics 1	General Physics 2	General Chimistry 1	Biology 1	Logic and Set Theory	Calculus 3	Ordinary Differential Equations 1	Linear Algebra 1	Euclidean Geometry	Advance Calculus	Mathematical Physics	Partial Differential Equations 1	Real Analysis 1	Theory of Probability	Mathematical Statistics	Abstract Algebra 1	General Topology 1	Number Theory	Numerical Analysis 1	Special Functions	Linear Programming	History of Mathmatics	Ordinary Differential Equations 2	Integral Equations	Real Analysis 2	Mathematical Analysis	Complex Analysis	Linear Algebra 2	Mathematical Packages	Integral Transformation	Partial Differential Equations 2	Introduction to Functional Analysis	Theory of Matrices	Foundation of Mathematics	Methods in Applied Mathematics
Intended Learning Outcomes: (ILOs)																																				
A. Knowledge and understanding of:																																				
A1- Concepts and Theories.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
A2- Contemporary Trends, problems and Research.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*		*			*	*	*		*		*
A3- Professional Responsibility.				*	*	*	*	*		*		*		*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	
B.Subject-specific skills:																																				
B1- Problem solving skills.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
B2-Modeling and Design.	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			*	*	*		*		*
B3-Application of Methods and TOOLS.		*		*	*	*	*	*	*	*	*	*		*	*		*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*		*	*	
C. Critical- Thinking Skills																																				
C1- Analytic skills.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
C2- Strategic Thinking.	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*
C3- Creative thinking and innovation.		*		*	*	*	*	*	*	*		*	*	*	*		*	*	*	*	*		*	*	*	*	*	*	*		*	*	*	*		*	*	
D. General and Transferable Skills(other skills relevant to employability and personal development)																																				
D1-Communication.	*			*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	
D2- Teamwork and leadership	*			*			*	*	*	*	*	*		*	*	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*		*		*