Program Learning Outcome Mapping Matrix

Identify on the table below the courses that are required to teach the program learning outcomes. Insert the program learning outcomes, according to the level of instruction, from the above table below and indicate the courses and levels that are required to teach each one; use your program's course numbers across the top and the following level scale. Levels: I = Introduction   P = Proficient   A = Advanced

Allocation of Responsibilities for Learning Outcomes to Optional Courses

Levels:	I = Introduction	P = Proficient	A = Advanced
	M :=Math,	PE=PENG,	PM=PMTH,
	PC=PCOM,	PPH=PPHS	A=ARAB,
	SA=SALM,	ST=STAT	

Program Learning Outcomes		Course Code and Number																		
		PE 111	PM 112	PC 113	PSC 114	PE 121	PM 127	PE 123	PPH 128	M 231	ST 201	M 201	M 271	A 101	SA 101	M 202	M 203	M 204	M 241
Knowledge	a1. Apply fundamentals and concepts of mathematics.		I	I	I		I		I	P		P	P			P	P	P	P
Knowledge	a2. Apply fundamentals and concepts General sciences and	I	I	I	I	I	I	I	I	I	I	I	P		P			P	P
Knowledge	a3. Realize Social and ethical			I	I														
Cognitive Skills	b1. Read and construct mathematical arguments and proofs		I							I	I	I	P			P	P	P	P
Cognitive Skills	b2. Apply critical thinking skills to solve problems that can be modeled mathematically					I	I	I	I	I	I	I	P			P	P	P	P
Interpersonal Skills & Responsibility	c1. Work independently and	P			P	P		P											
Interpersonal Skills & Responsibility	c2. Bear responsibility for different situations.	I						I											
Interpersonal Skills & Responsibility	c3. Realize codes of ethics and their importance.													I	P				
Communication, Information Technology, Numerical	d1. Communicate a depth and breadth of mathematical knowledge, both orally and in																		
Communication, Information Technology, Numerical	d2. Ability to Organize, connect and communicate						I						I			P	P	A	
Communication, Information Technology, Numerical	d3. Critically interpret numerical and graphical data.																		
Psychomotor	e1. Use computer and its applications as an office tool																		

Program Learning Outcomes		M 321	M 351	M 352	M 353	SA 102	M 322	M 342	ST 302	M 381	M 423	M 443	M 472	M 473	SA 103	M 483	M 484	M 499
Knowledge	a1. Apply fundamentals and concepts of mathematics.	P	P	P	P		P	P	P	P		A	A	A		A	A	A
	a2. Apply fundamentals and concepts General sciences and	I	P		P	P					P		P		P		P	P
	a3. Realize Social and ethical								I									
Cognitive Skills	b1. Read and construct mathematical arguments and proofs.	P	P	P	P		P	A	A	A	A	A	A	A		A	A	
	b2. Apply critical thinking skills to solve problems that can be modeled mathematically.	P	P	P	P		P	A	A	A		A	A	A		A	A	A
Interpersonal Skills & Responsibility	c1. Work independently and within			I			I	I					P	P				
	c2. Bear responsibility for different situations.									I		I			I		P	
	c3. Realize codes of ethics and their importance.										P			P		P		
Communication, Information Technology, Numerical	d1. Communicate a depth and breadth of mathematical knowledge, both orally and in																	
	d2. Ability to Organize, connect and communicate mathematical	I		P	P						P							P
	d3. Critically interpret numerical and graphical data.																	
Psychomotor	e1. Use computer and its applications as an office tool		A		A		A				A							A