

COURSE LEARNING OUTCOMES MATRIX

PROGRAMME : SKMM, SKMV, SKMB, SKMT, SKMI, SKMP, SKMO
COURSE CODE & NAME : SKMM2413

No.	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PO)										Learning Taxonomy	Delivery (Teaching Methods)	Assessment	Key Performance Indicators/ Index
		Engineering Knowledge	Problem Analysis	Design Solutions Using Conventional/Modern Tools	Investigation	Professional Ethics & Society	Sustainability	Communication	Team Working	Life Long Learning	Management, Finance & Entrepreneurship				
		1	2	3	4	5	6	7	8	9	10				
1.	explain the basic concepts of thermodynamics, energy, energy transfer and laws of thermodynamics	3(ii) (10%)										C2	Lectures, AL, tutorials	Quiz/Homework, Test	Average achievement of each CLO should be 65% and above.
2.	determine the thermodynamics properties based on property tables, equations of states and charts	3(ii) (15%)										C3	Lectures, AL, tutorials	Quiz/Homework, Test	
3.	analyze closed and open thermodynamics systems using the first law of thermodynamics	3(ii) (30%)	2 (5%)									C4	Lectures, AL, tutorials	Quiz/Homework, Test, Exam	
4.	analyze performance of reversible & actual heat engine, refrigerator and heat pump cycles based on the first and second laws of thermodynamics	3(ii) (15%)	2 (5%)									C4	Lectures, AL, tutorials	Quiz/Homework, Assignment, Test, Exam	
5.	analyze the entropy change during thermodynamics processes and calculate the isentropic efficiency of various steady flow devices	3(ii) (15%)	2 (5%)									C4	Lectures, AL, tutorials	Quiz/Homework, Exam	
	Overall	85	15												

Key:
3 = major contribution to outcome; 2 = moderate contribution to outcome; 1 = minor contribution to outcome