

Table 5.2 Cross Mapping of courses to student outcomes (A-K)

Student outcomes (SOs)		A	B	C	D	E	F	G	H	I	J	K
BA113	Physics 1	✓	✓		✓			✓				
ME151	Engineering Drawing & Projection							✓				✓
BA123	Mathematics 1	✓				✓						
BA141	Engineering Mechanics1	✓				✓						
CC111	Introduction to Computers	✓				✓	✓		✓			
IM111	Industrial Relations	✓				✓	✓		✓		✓	
LH131	ESP 1							✓				
BA114	Physics 2	✓	✓		✓			✓				
BA124	Mathematics 2	✓				✓						
BA142	Engineering Mechanics 2	✓				✓						
CC112	Structured Programming		✓	✓		✓						✓
IM112	Manufacturing Technology			✓		✓	✓				✓	✓
LH132	ESP 2							✓				
BA118	Chemistry	✓	✓		✓			✓				
BA223	Mathematics (3)	✓				✓						
EE238	Electrical Eng. Fundamentals	✓	✓		✓							✓
LH231	Technical Report Writing (3)							✓				
ME232	Thermodynamics (1)	✓	✓			✓		✓				
ME252	Mechanical Eng. Drawing							✓				✓
ME274	Material Science	✓	✓									
BA224	Mathematics (4)	✓				✓						
EE218	Instrumentation & Measurements	✓	✓	✓								✓
IM212	Manufacturing Process 1					✓	✓		✓			✓
ME241	Experimental methods		✓	✓				✓				
ME276	Stress analysis	✓				✓						
ME333	Thermodynamics (2)	✓	✓	✓		✓		✓				
BA323	Mathematics (5)	✓				✓						
CC213	Programming applications		✓	✓		✓						✓
NE466	Environmental science & tech.								✓		✓	
ME355	Theory of Machines	✓				✓						
ME356	Machine Design (1)			✓		✓	✓	✓				
ME381	I.C.E (1)	✓	✓					✓			✓	
EE329	Electrical machines	✓	✓									
CC413	Numerical Analysis	✓				✓						✓
ME357	Machine design (2)			✓		✓	✓	✓				
ME362	Hydraulics	✓	✓			✓		✓				
ME431	Heat transfer	✓		✓		✓						

Table 5.2 (Continued)

EC331	Electronics	✓		✓		✓						
NE264	Scientific thinking						✓	✓	✓	✓		
CC442	Digital design & introduction to Microprocessors	✓	✓	✓		✓						
EE416	Microcontroller applications			✓	✓	✓						✓
EE418	Automatic Control System	✓	✓	✓		✓						✓
ME455	Computer aided design			✓		✓						✓
ME458	Mechanical Vibrations	✓				✓						
ME461	Fluid Mechanics	✓				✓						
NE364	Engineering economy	✓				✓			✓		✓	
IM423	Operations research	✓		✓		✓			✓			✓
EE419	Modern control engineering	✓	✓	✓		✓						✓
ME465	Computational fluid dynamics	✓		✓		✓						✓
ME591	Mechatronics		✓	✓		✓		✓		✓		✓
EC534	Analog & digital signal processing	✓		✓		✓						✓
ME593	Electromechanical systems	✓	✓	✓		✓		✓		✓		✓
ME501	Senior Project (1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ME592	Mechatronics systems	✓	✓	✓		✓		✓		✓		✓
IM535	International operational management								✓		✓	
ME502	Senior Project (2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ME542	Maintenance Planning					✓	✓		✓		✓	
ME595	Automation of mechanical systems	✓	✓	✓		✓		✓		✓		✓
ME594	Robotics applications	✓		✓		✓		✓		✓		✓