

Bachelor Degree in Instrumentation and Control Engineering Technology

Preparatory Year +2 +2 program.

Preparatory Year Requirements:

Engineering Stream:

LEVEL I

Course Code	Course Title	Weekly Contact Hours		Credit Hours	Pre-req
		LT	LB		
GES 021	Math I	3	0	3	-
*MIT 012	Introduction to Computer	0	1	1	-
*ELI 001	English A1	4	0	4	-
*ELI 002	English A2	4	0	4	-
Total		11	1	12	

LEVEL II

Course Code	Course Title	Weekly Contact Hours		Credit Hours	Pre-req
		LT	LB		
GES 006	Study Skills	1	0	1	
GES 022	Math II	4	0	4	GES 021
*ELI 003	English B1	4	0	4	
*ELI 004	English B1 Plus	4	0	4	
Total		13	0	13	

Degree Requirements:**Bachelor of Science in Instrumentation and Control Engineering Technology (ICET)**

1st YEAR LEVEL I						
Course Code	Course Title	Lec	Lab	Credit	Pre-req	
ELC 103	English III	2	3	3	ELC 012	
MME 102	Workshop Technology	0	2	1	-	
GES 113	Calculus I	3	3	4	GES 022	
EEE 101	Electrical Circuits I	2	3	3	-	
EEE 121	Instrumentation and Measurements I	2	3	3	-	
GES 132	Fundamentals of Physics	3	4	4	-	
TOTAL		12	18	18		

1st YEAR LEVEL II						
Course Code	Course Title	Lec	Lab	Credit	Pre-req	
ELC 104	English IV	2	3	3	ELC 103	
MME 101	Engineering Drawing	0	2	1	-	
MME 103	Industrial Safety and Environment	1	0	1	-	
GES 151	General Chemistry	2	4	3	-	
CHM 122	Process Equipment	2	3	3	-	
EEE 131	Analogue Electronics	2	3	3	EEE 101	
EEE 132	Digital Electronics	2	3	3	EEE 101	
TOTAL		11	18	17		

2nd YEAR LEVEL I

Course Code	Course Title	Lec Lab Credit			Pre-req
ELC 205	Technical Writing	2	3	3	ELC 104
MIT 170	Computer Applications	0	2	1	MIT 011
MIT 203	Organization Behavior and Ethics	2	0	2	-
EEE 221	Instrumentation and Measurements II	2	3	3	EEE 121
EEE 222	Electrical Machines and Control	2	3	3	EEE 101
EEE 223	Industrial Control	2	3	3	EEE 121, GES 113
EEE 224	Introduction to Microprocessor	2	3	3	EEE 113 or EEE 132
TOTAL		12	17	18	

2nd YEAR LEVEL II					
Course Code	Course Title	Lec	Lab	Credit	Pre-req
GES 271	Islamic Culture	1	0	1	-
EEE 231	Instrumentation System Diagram	0	2	1	EEE 223
EEE 232	Instrumentation Engineering	2	3	3	EEE 221
EEE 233	Programmable Logic Controllers	2	3	3	EEE 113 or EEE 132
EEE 234	Computer Control I	2	3	3	EEE 224
EEE 235	ICET Project	0	4	2	EEE 223 & EEE 224
XXX xxx	Elective*	2/3	3/0	3	-

TOTAL		9/10	18/15	16	
EEE 290	Cooperative Work Experience	0	40	3	-
Total credit hours			72		

3rd YEAR LEVEL I					
Course Code	Course Title	Lec	Lab	Credit	Pre-req
GES 313	Calculus II	3	3	4	GES 113
GES 332	College Physics	3	3	4	GES 132
MME 151	Fluid Mechanics and Heat Transfer	2	3	3	GES 132
EEE 321	Industrial Electronics	2	3	3	EEE 131
MIT 171	Data Communication and Networks	2	3	3	-
TOTAL		12	15	17	

3rd YEAR LEVEL II					
Course Code	Course Title	Lec	Lab	Credit	Pre-req
GES 314	Engineering Mathematics	3	3	4	GES 313
MIT 369	Computer Programming	1	3	2	MIT 011
MIT 410	Organization and Management	2	3	3	MIT 203
MME 433	Maintenance Planning and Management	2	0	2	-
EEE 331	Digital System Design	2	3	3	EEE 132
EEE 332	Process Instrumentation	2	3	3	EEE 221
TOTAL		12	15	17	

4th YEAR LEVEL I					
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Course Code	Course Title	Lec	Lab	Credit	Pre-req
ELC 407	Advanced English	1	3	2	ELC 205
CHM 212	Quality Control	2	0	2	-
CHM 218	Analytical Instrumentation	1	3	2	-
EEE 421	Control Engineering	2	3	3	GES 313
EEE 422	Advanced PLC	2	3	3	EEE 233, EEE 331
EEE 423	Advanced Microprocessors and Microcontrollers	2	3	2	EEE 224 & EEE 331
TOTAL		10	15	15	

4th YEAR LEVEL II					
Course Code	Course Title	Lec	Lab	Credit	Pre-req
GES 371	Ethics in Islam	1	0	1	GES 271
MIT 430	Engineering Economics	2	0	2	GES 314
EEE 431	Computer Control II	2	3	3	EEE 234
EEE 432	Process Control Applications	2	3	3	EEE 233 & EEE 423
EEE 433	Senior Project	0	6	2	EEE 321 & EEE 423
XXX xxx	Elective*	1/2	0/3	2/3	-
TOTAL		8/9	12/15	13/14	-
EEE 491	Cooperative Work Experience	0	40	3	-
Total credit hours		137/138			

