



MECHANICAL ENGINEERING DEPARTMENT PROGRAMS

FIRST YEAR

Semester 1											
Course Code	Course Name	Contact Hours				Grade Distribution			Exam hours	Total grade	Cr. Hours
		Lec	Tut	Lab	Total	Class work	Practical	Exam			
GEN1001	Mathematics (3)	2	2	-	4	30	-	70	3	100	3
MEC1002	Casting and Welding	4	-	3	7	40	40	120	3	200	5
POW1003	Electrical Engineering	2	1	1	4	30	30	90	3	150	2
GEN1004	Technical Reports	2	1	-	3	30	-	70	2	100	2
GEN1005	Mechanical Drawing	2	2	-	4	60	-	140	4	200	3
Total		12	6	4	22						15
Semester 2											
Course Code	Course Name	Contact Hours				Grade Distribution			Exam hours	Total grade	Cr. Hours
		Lec	Tut	Lab	Total	Class work	Practical	Exam			
GEN1006	Computer Aided Drawing	1	-	2	3	30	30	90	3	150	2
MEC1007	Theory of Machines (1)	2	2	-	4	50	-	100	3	150	3
MEC1008	Material Engineering (1)	4	1	1	6	30	30	90	3	150	4
GEN1009	Thermodynamics	2	1	-	3	30	-	70	3	100	2
MEC1010	Engineering Statistics	2	1	-	3	30	-	70	3	100	2
MEC1011	Industrial and Environmental Safety	2	1	-	3	30	-	70	3	100	2
Total		13	6	3	22						15
						Total grade				1500	



MECHANICAL ENGINEERING DEPARTMENT PROGRAMS

SECOND YEAR

Semester 1											
Course Code	Course Name	Contact Hours				Grade Distribution			Exam hours	Total grade	Cr. Hours
		Lec	Tut	Lab	Total	Class work	Practical	Exam			
MEC2001	Engineering Economy	2	2	-	4	30	-	70	3	100	3
ELC2002	Electronic Circuits	3	1	2	6	40	40	120	3	200	4
MEC2003	Fluid Mechanics	2	1	1	4	30	30	90	3	150	2
CSE2004	Computer Programming	2	1	1	4	30	30	90	3	150	2
MEC2005	Theory of Machines (2)	2	2	-	4	50	-	100	3	150	3
	Training										
Total		11	7	4	22						14
Semester 2											
Course Code	Course Name	Contact Hours				Grade Distribution			Exam hours	Total grade	Cr. Hours
		Lec	Tut	Lab	Total	Class work	Practical	Exam			
MEC2006	Numerical Analysis	2	1	-	3	30	-	70	3	100	2
MEC2007	Project Management	2	1	-	3	30	-	70	3	100	2
MEC2008	Instrumentation and Measurements	2	1	1	4	30	30	90	3	150	2
MEC2009	Quality Control	2	2	-	4	30	-	70	3	100	3
MEC2010	Automatic Control	2	2	-	4	50	-	100	3	150	3
POW2011	Electrical Machines	2	1	1	4	30	30	90	3	150	2
Total		12	8	2	22						14
						Total grade				1500	

- Summer field training at specialized sites outside the college for four weeks after the second semester exams for the second year.



MECATRONIC ENGINEERING PROGRAM

THIRD YEAR

Semester 1											
Course Code	Course Name	Contact Hours				Grade Distribution			Exam hours	Total grade	Cr. Hours
		Lec	Tut	Lab	Total	Class work	Practical	Exam			
POW3301	Power Electronics	2	1	1	4	30	30	90	3	150	2
ELC3302	Digital logic circuits	2	1	2	5	30	30	90	3	150	3
POW3303	Electromechanical Devices	2	1	2	5	30	30	90	3	150	3
MEC3304	Modeling and Simulation of Dynamic Systems	2	2	-	4	30	-	70	3	100	3
-----	Elective Course (1)	2	2	-	4	30	-	70	3	100	3
	Training									100	
Total		10	7	5	22						14
Semester 2											
Course Code	Course Name	Contact Hours				Grade Distribution			Exam hours	Total grade	Cr. Hours
		Lec	Tut	Lab	Total	Class work	Practical	Exam			
MEC3308	Pneumatic and Hydraulic Control	2	1	2	5	40	40	120	3	200	3
CSE3309	Real Time Systems	2	1	1	4	30	30	90	3	150	2
ELC3310	Microprocessors and Microcontrollers	2	1	2	5	40	40	120	3	200	3
MEC3311	Mechanical Vibrations	2	2	-	4	30	-	70	3	100	3
-----	Elective Course (2)	2	1	-	3	30	-	70	3	100	2
Total		10	6	5	21						15
						Total grade				1500	

Elective Course (1)	Elective Course (2)
(MEC3305) Mechanical Design (MEC3306) Mechanical Mechanisms (3307) Selected Topics	(pow3312) New and Renewable Energy Systems (pow3313) Intelligent Control Systems (3314) Selected Topics

- Summer field training at specialized sites outside the college for four weeks after the second semester exams for the third year.



MECATRONIC ENGINEERING PROGRAM

FOURTH YEAR

Semester 1											
Course Code	Course Name	Contact Hours				Grade Distribution			Exam hours	Total grade	Cr. Hours
		Lec	Tut	Lab	Total	Class work	Practical	Exam			
MEC4301	ROBOT ANALYSIS AND CONTROL	2	1	-	3	30	-	70	3	100	2
MEC4302	Condition Monitoring of Machines	2	1	1	4	30	30	90	3	150	2
MEC4303	Motion Control and Servo Systems	2	1	1	4	30	30	90	3	150	2
MEC4304	Mechatronics System Design (1)	2	-	2	4	30	30	90	3	150	3
----	Elective Course (3)	2	2	-	4	30	-	70	3	100	3
	Training									100	
----	Project	-	4	-	4		Cont.				2
Total		10	9	4	23						14
Semester 2											
Course Code	Course Name	Contact Hours				Grade Distribution			Exam hours	Total grade	Cr. Hours
		Lec	Tut	Lab	Total	Class work	Practical	Exam			
CSE4308	Embedded Systems	2	1	1	4	20	20	60	3	100	2
MEC4309	Mechatronics System Design (2)	2	-	2	4	20	20	60	3	100	3
MEC4310	Automation and Programmable Logic Controller	2	1	1	4	30	3	90	3	150	2
MEC4311	Digital Control Systems	2	1	-	3	30	-	70	3	100	2
----	Elective Course (4)	2	1	-	3	30	-	70	3	100	2
MEC4315	Project	-	-	4	4	100	100			200	1
Total		10	4	8	22						12
						Total grade				1500	

Elective Course (3)	Elective Course (4)
(MEC4305) Automotive Mechatronics (MEC4306) Computer Numerical Control Machines CNC (4307) Selected Topics	(EIC4312) Signal Processing (MEC4313) Sustainable Manufacturing Systems (4314) Selected Topics

- The graduation project preparation for fourth-year students continues for 36 hours per week for four weeks after the second semester exams.