



Electromechanical Engineering

Semester	Subject	Total hours of academic work with teacher support	Total hours of independent student work	Total hours of academic work	Credits	Prerequisites
1	Calculus (I)	102	85	187	7.5	
1	Physics (I)	85	68	153	6.1	
1	Physics Lab (I)	51	34	85	3.4	
1	Introduction to Computer Science	85	68	153	6.1	
1	English (I)	68	51	119	4.8	
1	Chemistry	85	51	136	5.4	
1	Chemistry Lab	51	51	102	4.1	
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1						
1						
Total semester hours		527	408	935	37.4	
2	Calculus (II)	102	85	187	7.5	Calculus (I)
2	Physics (II)	85	68	153	6.1	Physics (I)
2	Physics Lab (II)	51	51	102	4.1	Physics (I), Physics Lab (I)
2	Programming Language	85	68	153	6.1	Introduction to Computer Science
2	English (II)	68	51	119	4.8	English (I)
2	Physics (III) - Statics	85	68	153	6.1	Calculus (I), Physics (I)
2	Engineering Drawing	68	51	119	4.8	
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2						
Total semester hours		544	442	986	39.5	
3	Chinese (I)	68	51	119	4.8	
3	Statistics (I)	68	51	119	4.8	Calculus (I)
3	Guarani Language	68	51	119	4.8	
3	Physics (IV) - Dynamics	85	68	153	6.1	Calculus (I), Physics (III) - Statics
3	Electrical Engineering	68	51	119	4.8	Physics (II)
3	Engineering Mathematics (I)	85	68	153	6.1	Calculus (II)
3	Engineering Materials (I)	85	51	136	5.4	Chemistry
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3						
Total semester hours		527	391	918	36.8	
4	Statistics (II)	68	51	119	4.8	Statistics (I)
4	Chinese (II)	68	51	119	4.8	Chinese (I)
4	Physics (V) - Thermodynamics	85	68	153	6.1	Physics (I)
4	Engineering Mathematics (II)	85	68	153	6.1	Engineering Mathematics (I)
4	Mechanics of Materials	102	85	187	7.5	Physics (III) - Statics
4	Applied Electronics	68	51	119	4.8	Electrical Engineering
4	Electronics Circuit Lab	51	51	102	4.1	Electrical Engineering
4	Mechanisms and Dynamics of Machinery	68	51	119	4.8	Physics (IV) - Dynamics
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4						
Total semester hours		595	476	1071	43.0	



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5	Research Methodology	68	51	119	4.8	
5	Manufacturing Processes	68	51	119	4.8	Engineering Materials (I)
5	Fluid Mechanics	85	68	153	6.1	Engineering Mathematics (I)
5	Automatic Control	68	51	119	4.8	Engineering Mathematics (II)
5	Mechanical Design	68	51	119	4.8	Mechanisms and Dynamics of Machinery
5	Automatic Control Lab	51	51	102	4.1	Engineering Mathematics (II)
5	Heat Transfer	68	51	119	4.8	Physics (V) - Thermodynamics
5	Power Systems	85	68	153	6.1	Electrical Engineering
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5						
Total semester hours		561	442	1003	40.3	
6	Optative (1)	68	51	119	4.8	Have passed all subjects up to the third semester
6	Optative (2)	68	51	119	4.8	Have passed all subjects up to the third semester
6	Optative (3)	68	51	119	4.8	Have passed all subjects up to the third semester
6	Introduction to Robotics	85	68	153	6.1	Automatic Control
6	Manufacturing Lab	51	51	102	4.1	Manufacturing Processes
6	Materials Testing Lab	51	51	102	4.1	Mechanics of Materials
6	Machine Shop Practice	68	51	119	4.8	Manufacturing Processes
6	Advanced Power Systems	85	68	153	6.1	Power Systems
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6						
Total semester hours		544	442	986	39.6	
7	Optative (4)	68	51	119	4.8	Have passed all subjects up to the third semester
7	Optative (5)	68	51	119	4.8	Have passed all subjects up to the third semester
7	Optative (6)	68	51	119	4.8	Have passed all subjects up to the third semester
7	Thermal and Fluid Science Lab	51	51	102	4.1	Heat Transfer, Fluid Mechanics
7	Computer Aided Drawing Lab	68	51	119	4.8	Engineering Drawing
7	Foundry and Welding Lab	51	51	102	4.1	Manufacturing Processes
7	Mechanical System Design and Practice (I)	0	300	300	12.0	Have passed all subjects up to the sixth semester
7	NC Machine Lab	68	51	119	4.8	Machine Shop Practice
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Total semester hours		442	657	1099	44.2	
8	Mechanical System Design and Practice (II)	0	300	300	12.0	Have passed all subjects up to the sixth semester
8	Practice Work Training in Company	0	300	300	12.0	Have passed all subjects up to the seventh semester
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Total semester hours		0	600	600	24.0	
TOTAL HOURS		3740	3858	7598		
TOTAL CREDITS					304.8	