BACHELOR PROGRAM IN MECHATRONICS TECHNOLOGY

Number of credits required: 130

Semester	***Subject code***	***Subject***	***Number of credits***
1	**Core subjects**		**19**
19 credits		Basic principles of Marxism-Leninism 1	2
		Fundamentals of Law	2
		Linear Algebra	3
		General Physics	4
		English 1	3
		Basic Informatics	3
		Electrical Engineering	2
		Physical education 1 – Athletics	
2	**Core subjects**		**17**
20 credits		Basic principles of Marsism-Leninism 1	3
		Calculus	4
		English 1	4
		Descriptive Geometry and Engineering Drawing	3
		Electronics Engineering	3
		Physical education 2&3	
	Elective subjects		**3**
		Probability theory and mathematical statistics	3
		Optimization Methodology	3
3	**Core subjects**		**11**
17 credits		Ho Chi Minh’s Ideology	2
		Applied Mechanics	3
		General Chemistry	3
		Programming Embedded System	3
	Elective subjects		**6**
		Applied Electronics for Mechatronics	3
		Engineering Materials	2
		Applied Informatics for Mechatronics	3
		Business Management	2
		Crane-Lift Machinery	2
		Electric Equipments in Mechatronics systems	3
4	**Core subjects**		**17**

19 credits		Revolutionairy strategies of Vietnam Communist Party	3
		Control Theory and Project	4
		Theory of Machines, Mechanisms and Machine Elements	3
		Thermal Engineering	3
		Applied Microcontroller	4
	Elective subjects		**2**
		Introduction to Engineering	2
		Communication Skills	2
5	**Core subjects**		**7**
17 credits		Interface Board Design and Project	3
		Programmable Logic Controller	4
	Elective subjects 1		**2**
		Practice for Vietnamese Texts	2
		General Logics	2
		General Psychology	2
	Elective subjects 2		**8**
	Mechatronics in Industrial System		
		Supervisory Control and Data Acquisition	2
		Production Line Automation	3
		Manufacturing Technology	2
		CAD/CAM/CAE Technology	4
		CNC Machining Technology and Project	4
	Mechatronics in Heating/Cooling System		
		Basic Refrigeration Techniques	3
		Applied Refrigeration Techniques and project	4
		Air-Conditioning and project	4
		Maintenance of Refrigeration and Air-Conditioning	3
		Automation in Refrigeration and Air-Conditioning	3
	Mechatronics in Automobile		
		Automobile Theory	3
		Automobile Composition - Analysis and Project	5
		Automobile Electrical –Electronics Systems and Project	5
		Automobile Automation	3
6	**Core subjects**		**14**
14 credits		Industrial Communication Nework	4

		Sensors and Applications	4
		Electric Machine Control	4
		Research Methodology	2
7 17 credits	**Core subjects**		**14**
		Fluid Sytem Automation	3
		Robot Engineering and Project	5
		Mechanical Engineering Practicum	3
	Elective subjects		**3**
		Safety Techniques and Environment	3
		Computer Simulation Engineering	3
8 10 credits	**Elective subjects**		**10**
		Mechatronics System and Project	4
		Pattern Recognition and Image Processing	3
		Specialized Practicum	3