No.	Course Code	Course name	Total credit	Credits					Semester	Prerequisite course code
				Theory	Laboratory Practice	Mini project	Final project	Internship		
9.1		**General Education**	**50**							
9.1.1		**Social Sciences and Humanities**	**19**							
9.1.1.1		**Mandatory Courses:**	**15**							
1	LP6010_EN	Philosophy of Marxism Leninism	3	3	0	0	0	0	1	
2	LP6011_EN	Political Economy of Marxism Leninism	2	2	0	0	0	0	3	
3	LP6012_EN	Science Socialism	2	2	0	0	0	0	3	
4	LP6013_EN	History of Vietnam Communist Party	2	2	0	0	0	0	6	
5	LP6004_EN	Ho Chi Minh's Ideology	2	2	0	0	0	0	4	
6	LP6003_EN	General Law	2	2	0	0	0	0	5	
7	BS6018_EN	Intercultural communication	2	2	0	0	0	0	1	
9.1.1.2		**Elective Courses (Choose 1 course from Group 1 and 1**	4							

		course from Group 2):								
Elective 1		**Group 1:**								
8	BS6021_EN	Human and the Environment	2	2	0	0	0	0	3	
9	BS6019_EN	Introduction to Scientific Research	2	2	0	0	0	0	3	
10	BS6020_EN	Labour and Employment Relations	2	2	0	0	0	0	3	
11	SE6197_EN	Project Management	2	2	0	0	0	0	3	
12	SE6036_EN	Principles of Economics	2	2	0	0	0	0	3	
13	SM6186_EN	Professionalism in Workplace	2	2	0	0	0	0	3	
Elective 2		**Group 2:**								
	BS6022_EN	General Music	2	2	0	0	0	0	4	
	BS6024_EN	General Fine Art	2	2	0	0	0	0	4	
	BS6023_EN	General Artistry	2	2	0	0	0	0	4	
9.1.2	Select 1 from 5 foreign language programs		10	10						
	SL6325_EN	English for Mechanical and Automotive Engineering 1	5	5	0	0	0	0	4	

	SL6326_EN	English for Mechanical and Automotive Engineering 2	5	5	0	0	0	0	5	
		Chinese Language Curriculum								
	FL6339	Chinese 1	5	5	0	0	0	0	4	
	FL6340	Chinese 2	5	5	0	0	0	0	5	
		Korean Language Curriculum								
	FL6335	Korean 1	5	5	0	0	0	0	4	
	FL6336	Korean 2	5	5	0	0	0	0	5	
		Japanese Language Curriculum								
	FL6337	Japanese 1	5	5	0	0	0	0	4	
	FL6338	Japanese 2	5	5	0	0	0	0	5	
		German Language Curriculum								
	FL6582	Germany 1	5	5	0	0	0	0	4	
	FL6583	Germany 2	5	5	0	0	0	0	5	
9.1.3		**Natural Sciences**	21							
9.1.3.1		**Required**	15							
	SC6201_EN	Enhancing Digital Competencies	3	2	1	0	0	0	7	

	BS6002_EN	Calculus	3	3	0	0	0	0	1	
	BS6004_EN	Technical Mathematics	3	3	0	0	0	0	3	
	BS6008_EN	Probability Statistics	3	3	0	0	0	0	4	
	BS6027_EN	General Physics	3	2	1	0	0	0	1	
9.1.3.2		**Electives**	6							
	SC6092_EN	Numerical Methods for Programming	3	0	0	0	0	0	2	
	BS6003_EN	Method of Calculus	3	0	0	0	0	0	2	
	SC6091_EN	Discrete Mathematics	3	0	0	0	0	0	2	
	BS6007_EN	Physics II	3	0	0	0	0	0	2	
	CT6001_EN	Fundamental Chemistry	3	0	0	0	0	0	2	
9.1.4.		National Defense Education	0						1/2	
		According to Circular No. 05/2000/TT-BGDĐT dated March 18, 2000.								
9.1.5		**Physical Education** In accordance with the current regulations of Hanoi University							1,2	

		of Industry.								
9.2		**Professional Education**								
9.2.1		**Foundation Courses**								
9.2.1.1		**Required**	24							
	SM6050_EN	Engineering Drawing	3	3	0	0	0	0	1	
	SC6015_EN	Programming Techniques	3	2	1	0	0	0	6	
	SM6176_EN	Industrial Health and Safety	2	2	0	0	0	0	3	
	SEE6135_EN	Fundamentals of Electrical and Electronics	3	3	0	0	0	0	3	
	SM6140_EN	Materials Engineering	2	2	0	0	0	0	2	
	SM6178_EN	Engineering Mechanics	3	3	0	0	0	0	2	
	SM6055_EN	Strength of Materials	2	2	0	0	0	0	3	SM6178_EN
	SM6054_EN	Theory of Mechanisms and Machine	2	2	0	0	0	0	3	
	SM6056_EN	Machine Elements	2	2	0	0	0	0	4	
	SM6048_EN	Introduction to Engineering	2	2	0	0	0	0	1	
9.2.1.2		**Electives**								

9.2.2		**Fundamental Courses**	19							
9.2.2.1		**Required**	17							
	SM6138_EN	Basic Mechanical Practice	2	0	2	0	0	0	2	
	SM6059_EN	Tolerances and Measuring	2	2	0	0	0	0	4	
	SM6057_EN	Experimental Facility Design Tools	1	0	1	0	0	0	4	SM6140_EN
	SM6153_EN	Tolerances and Measuring Practices	1	0	1	0	0	0	5	
	SM6049_EN	Introduction to Engineering project	1	0	1	0	0	0	2	SM6048_EN
	SM6195_EN	Computer Aided Design	2	0	2	0	0	0	3	SM6050_EN
	SM6190_EN	Thermodynamics	2	2	0	0	0	0	5	
	SM6180_EN	Machine elements Project	2	0	0	0	2	0	5	
	SM6183_EN	Advanced Mechanical Drawing	2	2	0	0	0	0	2	
	SM6061_EN	Hydraulic and Pneumatic Engineering	2	2	0	0	0	0	5	
9.2.2.2		**Electives**	2							
	SM6062_EN	Manufacturing	2	2	0	0	0	0	5	

		Technology for Workpieces								
	SM6086_EN	Product Design and Development	2	2	0	0	0	0	5	
	SM6063_EN	Application of CAE Practices in Mechanical Design	2	0	2	0	0	0	5	
	SM6122_EN	Robotics Engineering	2	2	0	0	0	0	5	
9.2.3		**Specialization Courses**	25							
9.2.3.1		**Required**	23							
	SM6065_EN	Manufacturing Technology	3	3	0	0	0	0	6	
	SM6066_EN	Automation of Production Processes	2	2	0	0	0	0	8	
	SM6067_EN	Automation of Production Processes Practices	1	0	1	0	0	0	8	
	SM6064_EN	Machine Tools	3	3	0	0	0	0	5	SM6054_EN
	SM6120_EN	Pneumatic Automation Systems Practice	1	0	1	0	0	0	7	
	SM6141_EN	Advanced Mechanical Practice	2	0	2	0	0	0	7	SM6138_EN
	SM6197_EN	Computer Aided	2	0	2	0	0	0	7	

		Design/Computer Aided Manufacturing								
	SM6196_EN	Computer Numerical Control Machining Practice	2	0	2	0	0	0	8	
	SM6191_EN	Jig and Fixture Design	2	1	0	1	0	0	6	
	SM6179_EN	Manufacturing Technology Project	2	0	0	0	2	0	7	SM6064_EN
	SM6068_EN	Labs of Manufacturing Technology	1	0	1	0	0	0	6	
	SM6177_EN	Computer Numerical Control Technology	2	2	0	0	0	0	7	
9.2.3.2		**Electives**	2							
		Electives only 1 in group								
	SM6004_EN	Smart Manufacturing Systems	2	2	0	0	0	0	8	
	SM6069_EN	Stamping Die Design	2	2	0	0	0	0	8	
	SM6013_EN	Product Quality Management	2	2	0	0	0	0	8	

	SM6070_EN	Reverse Engineering and Rapid Prototyping Practices	2	0	2	0	0	0	8	
	SM6181_EN	Practical Electrical Discharge Machining	2	0	2	0	0	0	8	
	SM6182_EN	Robotics Engineering Practice	2	0	2	0	0	0	8	
	SM6187_EN	Mechatronic Engineering Practice	2	0	2	0	0	0	8	
9.3		**Free Electives**	2							
9.3.1		Required	2							
		Depending on the field, additional courses may be arranged to enhance soft skills for students.								
	SE6134_EN	Innovation and Entrepreneurial Mindset	2	2	0	0	0	0	7	
	SL6583	Tiếng Anh bậc 2	9	9	0	0	0	0	1	
	SL6584	Tiếng Anh bậc 3	9	9	0	0	0	0	1	
9.3.2		Elective (Choose	0	0						

		one from the five groups of foreign language courses)								
		English Language Program								
	SL6311_EN	Basic English for Mechanical and Automotive Engineering 1	5	5	0	0	0	0	1	
	SL6312_EN	Basic English for Mechanical and Automotive Engineering 2	5	5	0	0	0	0	2	
		Chinese Language Program								
	FL6560	Basic Chinese 1	5	5	0	0	0	0	1	
	FL6561	Basic Chinese 2	5	5	0	0	0	0	2	
		Korean Language Program								
	FL6564	Basic Korean 1	5	5	0	0	0	0	1	
	FL6565	Basic Korean 2	5	5	0	0	0	0	2	
		Japanese Language Program								
	FL6562	Basic Japanese 1	5	5	0	0	0	0	1	
	FL6563	Basic Japanese 2	5	5	0	0	0	0	2	

		German Language Program								
	FL6580	Basic German 1	5	5	0	0	0	0	1	
	FL6581	Basic German 2	5	5	0	0	0	0	2	
9.4		Internship and Graduation Project	15							
	SM6071_EN	Graduate Internship	7	0	0	0	0	7	9	
	SM6072_EN	Graduation Thesis	8	0	0	0	8	0	9	