

Cantho University
College of Technology
Environmental Engineering and Renewable Energy Center

CURRICULUM OF
HYDRAULIC ENGINEERING

Code: 04

I. TRAINING OBJECTIVES

1. Human behaviour: having a good virtue and a clear conscience.
2. Health: having a good health
3. Profession: the student should have the knowledge on and could apply their knowledge in research of planning, design, construction and management for projects that serve rural and amphibian traffics in delta.

II. DURATION: 4.5 YEARS

THE FIRST SEMESTER

No	Code	Subject	Credits	Hour	Theory	Practice
1.	QS 103	Military Science	7*	210		210
2.	TN 001	Analytics A1	4*	60	60	
3.	VL 001	General mechanics and thermal A	4*	60	60	
4.	VL 091	Practice on General mechanics and thermal A	1*	30	30	
5.	TN 006	Analytical Geometry B	2*	30	30	
6.	TD 101	Gymnastic	1*	30		30
7.	TH 005	Linear Algebra A	4*	60	45	15
8.	HS 132	Population and AIDS prevention	1*	15	15	
9.	NN 001	English 1	6	90	90	
10.	NN 004	French 1	6	90	90	
During this semester, the students have to take at least 06 credits of the selective courses.						
Total			36	675	420	255

THE SECOND SEMESTER

No	Code	Subject	Credits	Hour	Theory	Practice
1.	TH 001	General informatics A	3*	45	45	
2.	TH 004	Practice on General informatics A	2*	60		60
3.	VL 002	General electricity and Optics A	3*	45	45	
4.	VL 092	Practice on General electricity and Optics A	1*	30		30
5.	TN 002	Analytic A2	6*	90	90	
6.	ML 108	Marxist - Leninist philosophy	5*	75	75	
7.	HH 001	General chemistry A1	2*	30	30	
8.	TD 132	Teakondo	1*	30		30
9.	LK 003	General Laws	2*	30	30	
10.	NN 002	English 2	6	90	90	

11.	NN 005	French 2	6	90	90	
During this semester, the students have to take at least 06 credits of the selective courses.						
Total			37	615	495	120

THE THIRD SEMESTER

No	Code	Subject	Credits	Hour	Theory	Practice
1.	TN 007	Statistics A	4*	60	60	
2.	VL 003	Quantum physics	3*	45	45	
3.	HH 002	General chemistry A2	3*	45	45	
4.	HH 091	Practice on General chemistry	1*	30	30	30
5.	ML 101	Economics and politics B	5*	75	75	
6.	TD 113	Far jumping	2*	60		60
7.	CK 363	Theory of mechanics	4*	60	45	30
	NN 003	English 3	6	90	90	
	NN 006	French 3	6	90	90	
During this semester, the students have to take at least 06 credits of the selective courses.						
Total			34	555	450	120

THE FOURTH SEMESTER

No	Code	Course	Credits	Hour	Theory	Practice
1.	ML 125	Communism science	4*	60	60	
2.	CK 358	Drawing geometry	4*	60	30	60
3.	TN 309	Geology	3*	45	45	
4.	TN 310	Practice on geology	1*	15		30
5.	CK 462	Strength of materials	4*	60	45	30
6.	TN 469	Surveying	3*	45	45	
7.	TN 308	Practice on surveying	1*	15		30
8.	TN 436	Basis of hydraulics	3*	45	45	
Total			23	345	270	150

THE FIFTH SEMESTER

No	Code	Course	Credits	Hour	Theory	Practice
1.	TN 375	Structural analysis	4*	60	60	
2.	TN 314	Construction materials	3*	45	45	
3.	TN 315	Practice on construction materials	1*	15		30
4.	TN 302	Continuum mechanics	3*	45	45	
5.	TN 303	Basic of soil physics	3*	45	45	
6.	TN 304	Practice on basic of soil physics	1*	15		30
7.	TN 323	Hydraulics for structures A	4*	60	45	30
8.	TN 328	Hydrography	3*	45	45	
9.	TN 330	Practice on hydraulic and hydrography	1*	15		30
10.	TN 528	Practice on Introduce for HE	1*	15		30
11.	TN 442	Mapping and GIS	3	45	45	30
12.	CK 361	Electricity engineering	3	45	30	30

13.	TN 367	English for Hydraulic engineering	3	45	45	
14.	TS 410	Environmental ecology	4	60	60	
During this semester, the students have to take at least 03 credits of the selective courses.						
Total			37	555	450	210

THE SIXTH SEMESTER

No	Code	Course	Credits	Hour	Theory	Practice
1.	TN 312	Soil mechanics	3*	45	45	
2.	TN 313	Practice on soil mechanics	1*	15		30
3.	TN 454	Basis of concrete	3*	45	45	
4.	TN 455	Structures of concrete	2*	30	30	
5.	TN 456	Practice on structures of concrete	1*	15		30
6.	CK 362	The methods to carry out and writing valuable scientific reports	1*	15	15	
7.	TN 409	Computational methods A	4*	60	45	30
8.	TN 331	Agro -meteorology	3*	45	45	
9.	TN 457	Principle of planning projects	2*	30	30	
10.	TN 353	Structures of steel and wood	3*	45	45	
11.	CK 367	Industry electricity	3	45	30	30
12.	TS 385	Environmental industry	3	45	45	
13.	TN 453	Principles of architecture	3	45	45	
During this semester, the students have to take at least 03 credits of the selective courses.						
Total			32	480	420	120

THE SEVENTH SEMESTER

No	Code	Course	Credits	Hour	Theory	Practice
1.	ML 115	History of Vietnamese Communist Party	4*	60	60	
2.	TN 350	Foundation engineering	4*	60	60	
3.	TN 351	Practice on foundation engineering	1*	15		30
4.	TN 345	Pump & pumping station	4*	60	60	
5.	TN 468	Hydraulic engineering	5*	75	75	
6.	TN 517	Term paper on hydraulic engineering	1*	30		30
7.	TN 321	Applied informatics	4*	60	15	90
8.	TT 474	Pedology B	3	55	35	20
9.	TN 462	Rural roads design	3	45	45	
10.	TN 362	Special subjects reporting	2	30	30	
11.	TN 401	Construction machineries B	2	30	30	
During this semester, the students have to take at least 04 credits of the selective courses.						
Total			33	520	410	170

THE EIGHTH SEMESTER

No	Code	Course	Credits	Hour	Theory	Practice
1.	LK 111	The mission of society	2*			
2.	TN 357	Implementation of hydraulic structures	4*	60	60	
3.	TN 358	Term paper on implementation of hydraulic structures	1*	15		30
4.	CK 317	Sciences of labour safety and prevention	2*	30	30	
5.	TN 516	Planning water resources	2*	30	30	
6.	KT 408	Management of investable projects	3*	45	45	
7.	TN 518	Practice on hydraulic engineering	2*	60		60
8.	TN 489	Construction on weak foundation	3*	45	45	
9.	TN 332	Hydraulic projects management	3*	45	45	
10.	TT 407	Planning & developing the rural infrastructure	2	30	15	30
11.	TN 461	Rural bridges design	4	60	60	
12.	TN 364	Water supply & drainage	4	60	60	
During this semester, the students have to take at least 04 credits of the selective courses.						
Total			32	480	390	120

THE NINTH SEMESTER

No	Code	Subject	Credits	Hour	Theory	Practice
1.	TN 519	Thesis	12	180		360
2.	TN 427	The Essay	5	75		150
3.	TN 530	Applied informatics - MathCad	2	30	15	30
4.	TN 513	Underground Water Hydrology	2	30	30	
5.	LK 013	Construction laws	2	30	30	
6.	TN 520	Applied GIS in water resources management & planning	3	45	30	30
7.	TN 369	Coastal engineering	3	45	45	
8.	TN 429	Construction projects: damage & repair	2	30	30	
9.	TN 420	Wastewater treatment methods	4	60	60	
Total			35	450	240	570

Note of symbol: * compulsory credits