PROGRAMME SPECIFICATION

(Academic year 2019– 2020)

PROGRAMME:

BACHELOR OF ENGINEERING IN LAND MANAGEMENT

College of Environment and Natural Resources

December 2020

MINISTRY OF EDUCATION & TRAINING

CAN THO UNIVERSITY

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PROGRAMME BACHELOR OF ENGINEERING IN LAND MANAGEMENT

Programme specification was last revised in December 2020 according to Decision No 2453/QD-DHCT dated August 31, 2020 by Rector of Can Tho University.

TABLE OF CONTENTS

a. LIST OF ABBREVIATIONS

Abbreviations	Full
BELM	Bachelor of Engineering in Land Management
CTU	Can Tho University
ELO	Expected Learning Outcomes
LRC	Learning Resource Center
CENRes	College of Environment and Natural Resources
PO	Program Objectives

b. LIST OF TABLES

PART 1: GENERAL INFORMATION OF THE PROGRAMME

- Awarding institution: Can Tho University

- Administration unit: College of Environment and Natural Resources.

- Programme title: Land Management.

- Degree: Engineer in Land Management

- Mode of training: Regular, full-time.

- Training time and number of credits: 4.5 years; 150 credits (compulsory: 109 credits; elective: 41 credits).

- Admission criteria: The admission to the programme of Land Management is based on the total score of one of four blocks of subjects: A, A1, B and D1. The subjects in each block respectively are: (i) Mathematics, Physics, Chemistry; (ii) Mathematics, Physics, English; (iii) Mathematics, Chemistry, Biology and (iv) Mathematics, Chemistry, English. The admission methods are based on students' national high school graduation examination results or high school academic transcripts. Based on the mentioned national examination results, the Ministry of Education and Training (MOET) announces the minimum score for each block; from the minimum score, Can Tho University (CTU) announces the standard score for each major and admits students in several times (20 days/time). To attract more applicants, some applicants are given bonus scores according to regions or directly admitted (such as excellent students at national level).

PART 2: PROGRAMME OBJECTIVES AND EXPECTED LEARNING OUTCOMES

2.1. Programme objectives

The BELM programme has the following objectives. To train engineers with solid political ethics, good health, sense of discipline with sufficient qualifications to fulfil their assignments independently, creativity, organizational skills, teamwork skills, professional and social responsibility.

The BELM programme has these specific objectives.

- PO1: To equip students with knowledge of political theory, national defence and security, general law, foreign languages, basic information technology and physical education, professional knowledge and social responsibility as stated in current regulations.

- PO2: Equip students with theoretical and practical expertise in engineering, science and technology in land management.

- PO3: Train students to systematize legal documents on land. Be able to evaluate, analyse, implement land evaluation and land quality assessment, and design criteria for evaluation, land valuation, planning and distribution of urban and agricultural land use.

- PO4: Train students to be capable of self-study, lifelong learning, research, group work and acquisition of new scientific and technical achievements in order to improve their professional expertise to meet requirements of social development.

2.2. Expected Learning Outcomes

After completing the programme, students are able to:

2.2.1. Knowledge

c. General knowledge

- PLO1: Demonstrate basic understanding of Marxist-Leninist knowledge; guidelines and policies of the Communist Party of Vietnam; Ho Chi Minh's ideology, physical education and knowledge of national defence education to meet the requirements of national construction and defence.

- PLO2: Demonstrate basic knowledge of general law, social sciences and humanities, and natural sciences to meet the requirements of acquiring professional knowledge; basic knowledge of computers, office software and other basic software.

- PLO3: Demonstrate basic knowledge of English or French equivalent to level 3/6 of Vietnam's Foreign Language Competency Framework (i.e. B1 according to the European Framework).

d. Fundamental knowledge

- PLO4: Demonstrate basic knowledge of soil, quality of natural conditions and soil environment.

- PLO5: Demonstrate basic knowledge of law and land management.

- PLO6: Demonstrate knowledge of scientific research methods, writing and presenting scientific reports on land resource management, and English for land resource management.

- PLO7: Demonstrate knowledge of engineering and technology in land management.

e. Specialised knowledge

- PLO8: Master knowledge of advanced equipment, techniques and technology in the building, management, simulation and forecasting of land resources.

- PLO9: Master professional knowledge about land economy, legal tools and State management of land.

- PLO10: Master professional knowledge about planning, development strategy, management and exploitation of land resources.

- PLO11: Master professional knowledge and practical experience from local agencies in professional skills and land management.

2.2.2. Skills

a. Hard Skills

- PLO12: Master the use of Cadastral surveying and mapping, creatively apply advanced technologies for construction, management, simulation and forecasting of land resources.

- PLO13: Make good use of the State's legal documents in the registration - grant of certificates, statistics – inventory in adjustment of land changes, land economy, land dispute resolutions, contents of the State management of land.

- PLO14: Analyse and propose land use planning, forecasting, management, sustainable exploitation and use of land resources, policies on effective solutions to economic, social and technical problems in land management.

b. Soft Skills

- PLO15: Demonstrate the following skills: independent work, teamwork, presentation, management and entrepreneurship in land management.

- PLO16: Use basic English or French in communication and academic study; professionally use office informatics software, specialized land management informatics and other means of multi-media communication.

- PLO17: Demonstrate skills of active and creative systems thinking, analysis, synthesis, evaluation, forecasting, planning and writing reports, capability of management - administration and technical tasks.

2.2.3. Autonomy and responsibility

- PLO18: Exhibit firm political stance and ideology, sense of discipline, professional ethics and social responsibility.

- PLO19: Exhibit a professionalism at work: in the tasks of State management of land; technical operations, research and practical application.

- PLO20: Exhibit acquiring mind, lifelong learning and good cooperation with colleagues and the community.

2.3. The alignment between POs and PLOs of the BEML Programme

POs	PLO 1	PLO 2	PLO 3	PLO 4	PLO5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11	PLO 12	PLO 13	PLO 14	PLO 15	PLO 16	PLO 17	PLO 18	PLO 19	PLO 20
1																				
2																				
3																				
4																				

PART 3: PROGRAMME STRUCTURE AND CURRICULUM

3.1. Programme structure

The detailed information of the study programme applied from Cohort 45 is displayed in the curriculum map.

Table 3.1: Programme workload

Knowledge blocks	Compulsory credits	Elective credits	Total number of credits
1. General knowledge	31	17	48
2. Fundamental knowledge	33	02	35
3. Specialised knowledge	45	22	67
Total	**109**	**41**	**150**

3.2. Study programme

- Specialisation: Land Management.
- Major: Land Management.
- Degree: Engineer in Land Management
- Training time: 4.5 years.
- Number of accumulated credits: 150.
- Code: 7850103.
- Mode of training: Full-time.
- Administration unit: College of Environment and Natural Resources.

No	Code	Courses	Credits	Compulsory credits	Elective credits	Theory hours	Practice hours	Prerequisite	Corequisite	Semester
General knowledge										
1	QP006	National Defence and Security Education 1 (*)	2	2		30		Divided by specialised sub-group		
2	QP007	National Defence and Security Education 2 (*)	2	2		30		Divided by specialised sub-group		
3	QP008	National Defence and Security Education 3 (*)	3	3		20	65	Divided by specialised sub-group		
4	QP009	National Defence and Security Education 4 (*)	1	1		10	10	Divided by specialised sub-group		
5	TC100	Physical Education 1+2+3 (*)	1+1+1		3		90			I, II, III
6	XH023	General English 1 (*)	4		10 credits for English group	60				I, II, III
7	XH024	General English 2 (*)	3			45		XH023		I, II, III
8	XH025	General English 3 (*)	3			45		XH024		I, II, III
9	XH031	Level B2 English 1 (*)	4			60		XH025		I, II, III
10	XH032	Level B2 English 2 (*)	3			45		XH031		I, II, III
11	XH033	Level B2 English 3 (*)	3			45		XH032		I, II, III

12	FL001	General French 1 (*)	4		p or Frenc h grou p	60				I, II, III
13	FL002	General French 2 (*)	3			45		FL001		I, II, III
14	FL003	General French 3 (*)	3			45		FL002		I, II, III
15	FL007	Intensive French 1 (*)	4			60		FL003		I, II, III
16	FL008	Intensive French 2 (*)	3			45		FL007		I, II, III
17	FL009	Intensive French 3 (*)	3			45		FL008		I, II, III
18	TN033	Basic Informatics (*)	1	1		15				I, II, III
19	TN034	Basic Informatics in Labs (*)	2	2			60		TN033	I, II, III
20	ML014	Marxist - Leninist Philosophy	3	3		45				I, II, III
21	ML016	Marxist - Leninist Political Economy	2	2		30		ML014		I, II, III
22	ML018	Scientific Socialism	2	2		30		ML016		I, II, III
23	ML019	History of the Communist Party of Vietnam	2	2		30		ML018		I, II, III
24	ML021	Ho Chi Minh Ideology	2	2		30		ML019		
25	KL001	General Law	2	2		30				I, II, III
26	ML007	General Logic	2		2	30				I, II, III
27	XH011	Basic Vietnamese Culture	2			30				I, II, III
28	XH012	Vietnamese in use	2			30				I, II, III
29	XH014	General Management Documents and Archives	2			30				I, II, III
30	XH028	Overview of Sociology	2			30				I, II, III
31	KN001	Transferable Skills	2			20	20			I, II, III
32	KN002	Entrepreneurship and Innovation	2			20	20			
33	TN016	General physics: Electromagnetics and Optics	2		2	30				I, II, III
34	SP075	General of the Earth	2			30				I, II, III
35	TN012	Linear Algebra and Analytic Geometry	4	4		60				I, II, III
36	TN010	Probability and Statistics	3	3		45				I, II, III
Total: 48 credits (Compulsory: 31 credits; Elective: 17 credits)										
Fundamental knowledge										
37	MT155	Basic Geodesy	3	3		30	30			I, II
38	SP015	General Geology	2	2		15	30			I, II
39	CN004	Hydrometeorology	2	2		20	20			I, II
40	NN230	Pedology A	3	3		30	30	SP015		I, II
41	NN508	Land evaluation	2	2		15	30	NN230		I, II
42	NN288	Basic of Remote Sensing	2	2		20	20			I, II
43	MT266	Geographic Information System - Global Positioning System (GIS-GPS)	3	3		30	30			I, II
44	NN257	Management and Storing Land Records	2	2		30				I, II
45	NN262	Land Use Inventory and Change Management	2	2		30				I, II
46	MT418	Scientific Research Method _Resources˜& Environment	2	2		15	30			I, II
47	MT342	Environmental Impact Assessment	2	2		30				I, II
48	KL327	Land Law	3	3		45		KL001		I, II
49	NN243	Techniques of Cadastral Mapping	3	3		30	30			I, II
50	MT157	Urban Agriculture	2	2		30				I, II
51	MT199	English for Environment and Resources	2		2	30				I, II, III
52	XH019	French for Science and Technology	2			30		FL003		I, II
Total: 35 credits (Compulsory: 33 credits; Elective: 02 credits)										
Specialised knowledge										
53	NN255	Rural Planning and Development	2	2		30		NN508		I, II

54	MT158	Urban Management	2	2		30				I, II
55	MT221	Urban and Regional Planning	2	2		20	20			I, II
56	NN176	Land Resources Management and Exploitation	2	2		30		NN230		I, II
57	NN248	Cadastral Surveying	3	3		15	60	MT155		I, II
58	NN250	Land Information System/ Land Information Management LIS/LIM	3	3		15	60	NN243		I, II
59	MT222	Sustainable Land Resources Development	2	2		30				I, II
60	MT419	Land Use Planning	3	3		30	30	NN508		I, II
61	NN259	Land Ranking and Land Appraising	2	2		15	30	NN508		I, II
62	NN299	Real Estate Management and Analysis	3	3		30	30	NN259		I, II
63	KL423	Regulations on Land Inspection	2	2		30		KL327		I, II
64	MT223	Modelling in Land Management	2	2		20	20			I, II
65	MT224	Graphics and Landscape Urban Design	3	3		30	30			I, II
66	NN298	Remote Sensing Application	2	2		15	30	NN288		I, II
67	MT225	Specialised Skills	2	2		20	20			I, II
68	MT220	State Management of Land	2	2		30				I, II
69	MT458	Career Training - Land Management	2	2			60			III
70	NN261	Land Management Practicum	2	2			60			III
71	MT229	Land Resource Economics	2			30				I, II
72	MT228	Management and Mitigation Disaster	2			30				I, II
73	NN521	Feng shui - Geomancy	2		8	20	20			I, II
74	MT240	Investigate Methods of Land Resource Information	2			20	20			I, II
75	MT226	Geostatistics	2			15	30			I, II
76	MT231	Livelihood Analysis of Changes in Land Use	2			20	20			I, II
77	NN377	Farming System	2			30				I, II
78	MT262	Integrated Land Resources Management	2			30				I, II
79	MT406	UAV Technology and Applications	2			20	20			I, II
80	MT404	Seminar on Land Management	2			30				I,II,III
81	MT503	Thesis of Land Management	14		14		420	≥ 120 credits		I, II
82	MT453	Essay of Land Management	6				180	≥ 120 credits		I, II
83	NN297	Cadastral Database Management System	2			15	30			I, II
84	MT261	Strategy for Land Resource Development	2			30				I, II
85	MT263	Cadastral Survey Data Processing	2			30		MT197		I, II
86	MT264	Urban Construction Project Management	2			30				I, II
87	MT265	Cadastral Information System Analysis and Design	2			30		MT223		I, II
Total: 67 credits (Compulsory: 45 credits; Elective: 22 credits)										
Total: 150 credits (Compulsory: 109 credits; Elective: 41 credits)										

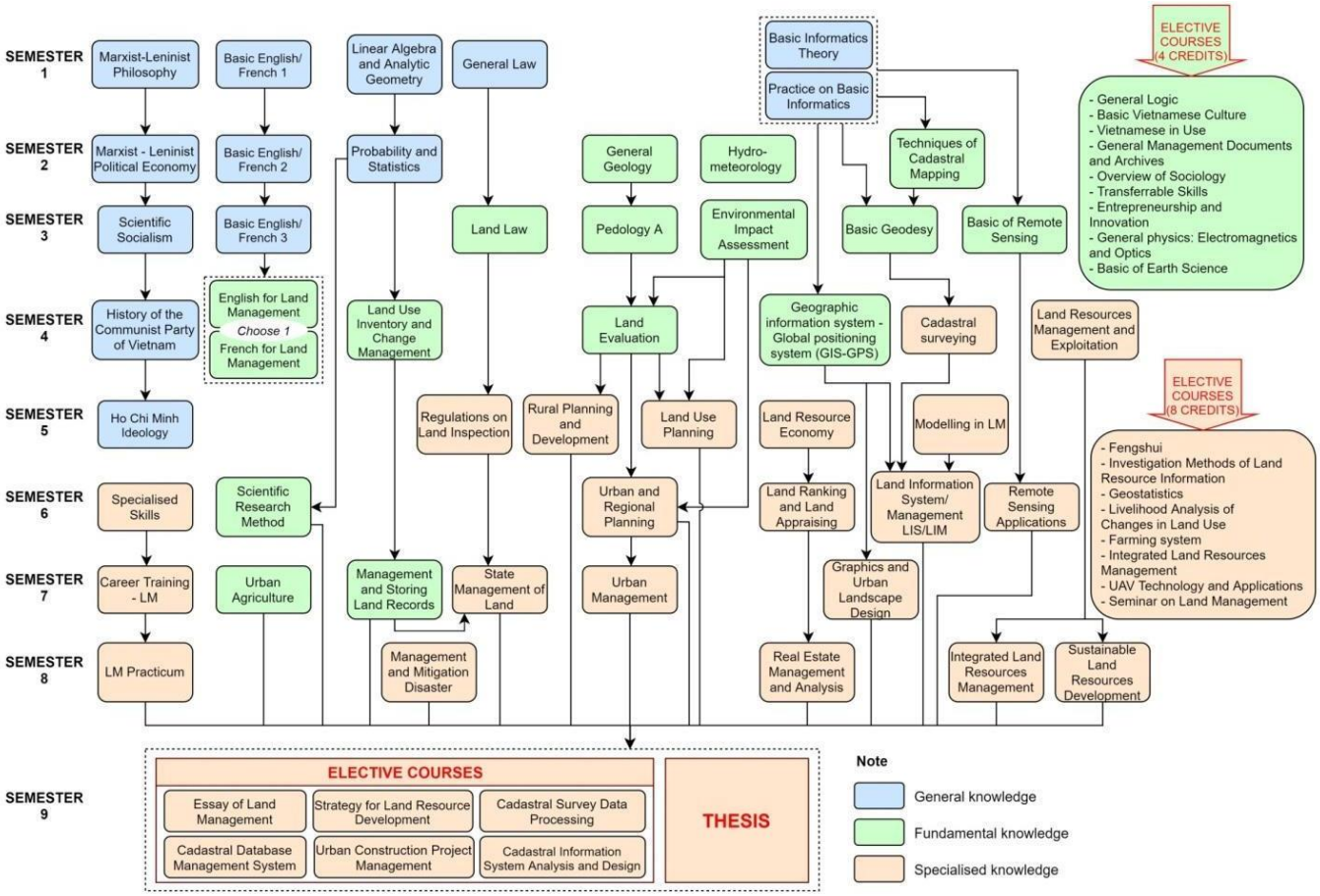
(*) conditional courses, pass required but not included in GPA. Students must pass the exams of National Defence Education, Physical Education and English (or French) as specified by CTU. Students can complete the above courses by submitting certificates according to CTU's regulations or cumulative study.

- Total number of compulsory credits: 109 credits.
- Total number of elective credits: 41 credits.
- 14 credits of graduation are structured into two options:

  (1) Thesis of Land Management: 14 credits;

  (2) Essay of Land Management (6 credits) and courses (8 credits).

Curriculum map



3.3. Mapping POs to ELOs

Programme Objectives	Expected Learning Outcomes																		
	Knowledge Skills											Knowledge Skills						Attitude and Perception		
	General knowledge			Fundamental knowledge				Specialised knowledge				Hard skills			Soft skills					
	PLO 01	PLO 2	PLO 3	PLO 04	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11	PLO 12	PLO 13	PLO 14	PLO 15	PLO 16	PLO 17	PLO 18	PLO 19	PLO 20
PO1	x	x														x			x	x
PO2		x					x	x		x	x	x					x		x	
PO3		x		x	x		x		x	x	x		x	x	x		x		x	
PO4			x			x		x	x		x	x	x	x	x	x	x	x		x

Note: x = Supporting

3.4. Mapping CLOs to ELOs

Courses			Expected Learning Outcomes																			
			Knowledge										Skills						Autonomy and responsibility		
			General knowledge			Fundamental knowledge				Specialised knowledge				Hard skills			Soft skills					
No	**Code**	**Name**	**PLO 1**	**PLO 2**	**PLO 3**	**PLO 4**	**PLO 5**	**PLO 6**	**PLO 7**	**PLO 8**	**PLO 9**	**PLO 10**	**PLO 11**	**PLO 12**	**PLO 13**	**PLO 14**	**PLO 15**	**PLO 16**	**PLO 17**	**PLO 18**	**PLO 19**	**PLO 20**
General knowledge																						
1	QP006	National Defence and Security Education 1 (*)	x														x			x		x
2	QP007	National Defence and Security Education 2 (*)	x														x			x		x
3	QP008	National Defence and Security Education 3 (*)	x														x			x		x
4	QP009	National Defence and Security Education 4 (*)	x														x			x		x
5	TC100	Physical Education 1+2+3 (*)	x														x			x		x
6	XH023	General English 1 (*)			x												x	x				x
7	XH024	General English 2 (*)			x												x	x				x
8	XH025	General English 3 (*)			x												x	x				x
9	XH031	Level B2 English 1 (*)			x												x	x				x
10	XH032	Level B2 English 2 (*)			x												x	x				x
11	XH033	Level B2 English 3 (*)			x												x	x				x
12	FL001	General French 1 (*)			x												x	x				x
13	FL002	General French 2 (*)			x												x	x				x
14	FL003	General French 3 (*)			x												x	x				x
15	FL007	Intensive French 1 (*)			x												x	x				x
16	FL008	Intensive French 2 (*)			x												x	x				x
17	FL009	Intensive French 3 (*)			x												x	x				x
18	TN033	Basic Informatics (*)		x													x	x			x	x

19	TN034	Basic Informatics in Labs (*)		x												x	x			x	x
20	ML014	Marxist - Leninist Philosophy	x													x		x	x		x
21	ML016	Marxist - Leninist Political Economy	x													x		x	x		x
22	ML018	Scientific Socialism	x													x		x	x		x
23	ML019	History of the Communist Party of Vietnam	x													x		x	x		x
24	ML021	Ho Chi Minh Ideology	x													x		x	x		x
25	KL001	General Law		x										x		x		x	x		x
26	ML007	General Logic		x												x		x	x		x
27	XH011	Basic Vietnamese Culture		x												x		x	x		x
28	XH012	Vietnamese in use		x												x		x	x		x
29	XH014	General Management Documents and Archives		x												x		x	x		x
30	XH028	Overview of Sociology		x												x		x	x		x
31	KN001	Transferable Skills		x												x		x	x		x
32	KN002	Entrepreneurship and Innovation		x												x		x	x		x
33	TN016	General physics: Electromagnetics and Optics		x												x		x	x		x
34	SP075	Basics of Earth Science		x												x		x	x		x
35	TN012	Linear Algebra and Analytic Geometry		x									x		x	x	x	x	x		x
36	TN010	Probability and Statistics		x									x		x	x	x	x	x		x
Fundamental knowledge																					
37	MT155	Basic Geodesy							x				x		x	x				x	x
38	SP015	General Geology				x									x	x				x	x
39	CN004	Hydrometeorology				x									x	x	x			x	
40	NN230	Pedology A				x									x	x		x		x	x
41	NN508	Land evaluation				x			x						x	x	x			x	x
42	NN288	Basics of Remote Sensing							x				x			x	x	x		x	x
43	MT266	Geographic Information System - Global Positioning System (GIS-GPS)							x				x		x	x	x	x		x	x
44	NN257	Management and Storing Land Records					x							x		x				x	x
45	NN262	Land Use Inventory and Change Management					x		x				x	x	x	x				x	x

46	MT418	Scientific Research Method Resources& Environment						x							x	x	x	x	x		x	x
47	MT342	Environmental Impact Assessment				x	x									x	x		x		x	x
48	KL327	Land Law					x								x		x			x	x	
49	NN243	Techniques of Cadastral Mapping							x					x	x		x	x			x	x
50	MT157	Urban Agriculture				x										x	x				x	x
51	MT199	English for Environment and Resources						x	x					x		x	x	x			x	x
52	XH019	French for Science and Technology						x	x					x			x	x			x	x
Specialised knowledge																						
53	NN255	Rural Planning and Development									x	x				x	x		x	x	x	x
54	MT158	Urban Management									x				x	x	x		x		x	x
55	MT221	Urban and Regional Planning										x			x	x	x		x		x	x
56	NN176	Land Resources Management and Exploitation										x		x	x	x	x			x	x	x
57	NN248	Cadastral Surveying								x				x			x	x	x		x	x
58	NN250	Land Information System/ Land Information Management LIS/LIM								x				x					x		x	
59	MT222	Sustainable Land Resources Development								x		x				x	x		x		x	
60	MT419	Land Use Planning								x		x	x	x		x	x		x		x	x
61	NN259	Land Ranking and Land Appraising									x	x			x		x		x		x	
62	NN299	Real Estate Management and Analysis									x				x				x	x		
63	KL423	Regulations on Land Inspection									x				x		x			x	x	
64	MT223	Modelling in Land Management								x		x		x		x	x		x		x	
65	MT224	Graphics and Urban Landscape Design								x		x		x			x	x	x		x	x
66	NN298	Remote Sensing Applications								x				x			x	x			x	
67	MT225	Specialised Skills								x	x	x	x	x	x	x	x		x		x	x
68	MT220	State Management of Land									x		x		x		x		x	x	x	x
69	NN502	Career Training - Land Management											x	x	x	x	x	x	x	x	x	x
70	NN261	Land Management_ Practicum											x	x	x	x	x		x		x	x
71	NN521	Feng shui - Geomancy										x				x	x				x	x
72	MT240	Investigate Methods of Land Resource Information										x				x	x	x			x	x

73	MT226	Geostatistics								x				x			x	x	x		x	
74	MT229	Land Resource Economics									x					x			x		x	x
75	MT228	Management and Mitigation Disaster									x					x	x		x		x	x
76	MT231	Livelihood Analysis of Changes in Land Use									x	x				x			x		x	x
77	NN377	Farming System										x				x	x		x		x	x
78	NN297	Cadastral Database Management System								x				x	x		x	x		x	x	
79	MT406	UAV Technology and Applications								x				x			x	x			x	
80	MT404	Seminar on Land Management						x					x	x	x	x	x	x	x	x	x	x
81	MT261	Strategy for Land Resource Development										x		x		x	x		x		x	x
82	MT262	Integrated Land Resources Management										x		x		x	x		x		x	x
83	MT263	Cadastral Survey Data Processing								x				x			x		x		x	
84	MT264	Urban Construction Project Management									x					x	x		x		x	
85	MT265	Cadastral Information System Analysis and Design								x				x			x		x		x	
86	MT453	Essay of Land Management								x	x	x	x	x	x	x	x	x	x	x	x	x
87	MT503	Thesis of Land Management								x	x	x	x	x	x	x	x	x	x	x	x	x

Note: x = Supporting

PART 4: BRIEF OUTLINE OF ALL COURSES IN THE PROGRAMME

4.1.National Defence and Security Education 1 (QP006)

Credits: 2.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course introduces the Party's basic theory of the military policy, including: the basics of the Mac-Leninist doctrine, Ho Chi Minh's ideology on tactics, military and national defense, the Party's views on the people war, building the armed forces, the all-people defense, the people security; the Party's views on combining socio-economic development with strengthening national defense and security consolidation. It also introduces basic contents regarding the history of various stages in Vietnamese military including current topics about establishing, protecting the ownership of the land and the water borders, national security, and social safety.

4.2.National Defence and Security Education 2 (QP007)

Credits: 2.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides the basic contents of the Party and State's defense and security tasks under the new situation, including building up militia and self-defense force, mobilization reserve force, strengthening material foundations and defense techniques, defeating the hostile forces' strategies of peace process and overthrowing rebellions. It introduces a number of ethnic and religious issues and the struggle against the enemy’s taking advantage of these issues to oppose our revolution; fighting against crime and maintaining social order and safety, fighting against law violations in cyberspace and non-traditional security threats in Vietnam.

4.3.National Defence and Security Education 3 (QP008)

Credits: 03.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course combines both theory and practice; introduces general military contents in order to equip students with some basic knowledge of military life, regular order and discipline, basic skills to practice the team's movements, commands and essential military skills.

4.4.National Defence and Security Education 4 (QP009)

Credits: 01.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course introduces the theoretical contents combined with practice in order to equip students with some basic skills to practice the use of AK submachine and grenades in combat.

4.5.Physical Education 1+2+3 (TC100)

Credits: 03.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This is a typical requisite course for non-major students to complete the training programme. To complete this course, students are required to enroll each separate course as desired instead of Course TC100. For example, to complete Taekwondo course, students have to take 03 courses namely Taekwondo 1 (TC003), Taekwondo 2 (TC004) và Taekwondo 3 (TC019). This regulation is applied for other physical education courses.

4.6.Basic English 1 (XH023)

Credits: 04.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with common English vocabulary for basic communication, focusing on these topics: self-introduction, family, accommodation, items in daily activities, sports, leisure time activities, shopping. In addition to developing their ability to communicate some basic communication situations in English on these topics, it also aims at developing students' foreign language competence at A2 level in the English language system. language proficiency according to the competency framework for Vietnam (via VSTEP _ Vietnamese Standardized Test of English Proficiency).

4.7.Basic English 2 (XH024)

Credits: 03.

Requisites:

- Prerequisites: XH023.
- Corequisites: none.

Brief description of the course:

This course provides students with common English vocabulary for basic communication, focusing on introductions of favourite country, city, food, tourism, fashion and money. In addition to developing their ability to communicate some basic communication situations in English on these topics, it also aims at developing students' foreign language competence at A2 level in the English language system. language proficiency according to the competency framework for Vietnam (via VSTEP _ Vietnamese Standardized Test of English Proficiency).

4.8.Basic English 3 (XH025)

Credits: 03.

Requisites:

- Prerequisites: XH024.
- Corequisites: none.

Brief description of the course:

This course provides students with common English vocabulary for basic communication, focusing on introductions of film kinds, technological equipment, tourism and natural environment. In addition to developing their ability to communicate some basic communication situations in English on these topics, it also aims at developing students' foreign language competence at A2 level in the English language system. language proficiency according to the competency framework for Vietnam (via VSTEP _ Vietnamese Standardized Test of English Proficiency).

4.9.Intensive English 1 (XH031)

Credits: 04.

Requisites:

- Prerequisites: XH025.
- Corequisites: none.

Brief description of the course:

This course (in the English Intensive Programme 1-3) provides students with English knowledge and the opportunity to practice the skills needed to suit the requirements of international communication competency in common situations. The course demonstrates the following principles and characteristics: (1) competency-based learning; (2) integrated and blended learning; (3) promoting learner independence in learning; (4) learning by interaction and by doing; (5) (purposeful learning; and (6) flexibility. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).

4.10. Intensive English 2 (XH032)

Credits: 03.

Requisites:

- Prerequisites: XH031.
- Corequisites: none.

Brief description of the course:

This course (in the English Intensive Programme 1-3) provides students with English knowledge and the opportunity to practice the skills needed to suit the requirements of international communication competency in common situations. The course demonstrates the following principles and characteristics: (1) competency-based learning; (2) integrated and blended learning; (3)

promoting learner independence in learning; (4) learning by interaction and by doing; (5) (purposeful learning; and (6) flexibility. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).

4.11. Intensive English 3 (XH033)

Credits: 03.

Requisites:

- Prerequisites: XH032.
- Corequisites: none.

Brief description of the course:

This course (in the English Intensive Programme 1-3) provides students with English knowledge and the opportunity to practice the skills needed to suit the requirements of international communication competency in common situations. The course demonstrates the following principles and characteristics: (1) competency-based learning; (2) integrated and blended learning; (3) promoting learner independence in learning; (4) learning by interaction and by doing; (5) (purposeful learning; and (6) flexibility. In addition to developing their ability to communicate and use English, it aims to support students to achieve B1 level (level 3) in the foreign language competency system according to the competency framework for Vietnamese students (via VSTEP exam).

4.12. Basic French 1 (FL001)

Credits: 04.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with communication skills in daily life such as introducing themselves, their families and others; talking about routines, interests, and acquaintances; talking and writing about time in common and administrative ways. Knowledge of the French language and culture is also integrated into the course content. Students will get familiar with the pronunciation, intonation, alphabet of French, know how to conjugate group I, group II and some group III verbs in the present tense and write a few simple sentences.

4.13. Basic French 2 (FL002)

Credits: 03.

Requisites:

- Prerequisites: FL001.
- Corequisites: none.

Brief description of the course:

This course provides students with basic knowledge of grammar, phonetics, vocabulary, ... of French. It aims at developing students' communication in daily life such as asking for information, explaining, accepting invitations or refusing, talking about their working day, talking about future plans... Students get acquainted with how to ask questions with more complex pronouns of French, how to conjugate group I, group II and some group III verbs in imperative form, how to give directions and locations, ... Knowledge of the French language and culture is also integrated into the course content.

4.14. Basic French 3 (FL003)

Credits: 03.

Requisites:

- Prerequisites: FL002.
- Corequisites: none.

Brief description of the course:

This course provides students with knowledge of daily communication situations, holidays, New Year, cuisines, description of people, objects, clothes, choice, quantity, family members, storytelling... Students are introduced texts from 100 words, long conversations, and ways how to write a 100-word paragraph and letters. They also can apply grammar knowledge in their writing such as sequencing nouns, adjectives, conjugating verbs in the past tense, combining tenses in the past tense... In the course, students will also know how to explain and argue simply.

4.15. Intensive French 1 (FL007)

Credits: 04.

Requisites:

- Prerequisites: FL003.
- Corequisites: none.

Brief description of the course

This course provides students with knowledge of daily communication situations including family introduction, getting acquaintance, house description, expression of interests, and comparison. Knowledge of the French language and culture is also integrated into the course content.

4.16. Intensive French 2 (FL008)

Credits: 03.

Requisites:

- Prerequisites: FL007.
- Corequisites: none.

Brief description of the course:

This course provides students with a rich and diverse knowledge of vocabulary and grammar structures to help them develop comprehensively the four skills of listening, speaking, reading, and writing related to six main topics on eating habits, sports, employment, education, communication and entertainment.

4.17. Intensive French 3 (FL009)

Credits: 03.

Requisites:

- Prerequisites: FL008.
- Corequisites: none.

Brief description of the course:

This course provides students with a rich and diverse knowledge of vocabulary and grammar structures to help them develop comprehensively the four skills of listening, speaking, reading, and writing related to six main topics: expressing opinions, talking about memories, travelling, personal habits, motivation, and reported /indirect speech.

4.18. Basic Informatics Theory (TN033)

Credits: 01.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with basic theoretical knowledge of information technology: information concepts, general structure of computers, the Windows operating system, commands and operations to edit documents using Microsoft Word, processing spreadsheets using Microsoft Excel, creating and presenting reports on computers using Microsoft PowerPoint and the Internet; and using emails.

4.19. Practice on Basic Informatics (TN034)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: TN033.

Brief description of the course:

Practicing on computers, students are trained the skills: using Windows operating system, editing Microsoft Word documents, processing Microsoft Excel spreadsheets, presenting Microsoft PowerPoint reports, using the Internet and E-mail. They are also trained with skills of writing scientific reports and skills of creating presentations on multimedia projectors.

4.20. Marxist_Leninist Philosophy (ML014)

Credits: 03.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with basic and intensive knowledge of Marxist-Leninist philosophy including: philosophy and the role of philosophy in social life, dialectical materialism, materialism and consciousness, classes, nations, states and social revolutions, social consciousness, philosophy about human beings.

4.21. Marxist-Leninist Political Economy (ML016)

Credits: 02.

Requisites:

- Prerequisites: ML014.
- Corequisites: none.

Brief description of the course:

This course provides students with the basic and intensive knowledge of Marxist-Leninist political economy, including: subjects, research methods and functions of Mac Leninist political economy, commodities, markets, and the role of entities when participating the market, surplus value in a market economy, competition and monopoly; socialist-oriented market economy and economic relations in Vietnam.

4.22. Scientific Socialism (ML018)

Credits: 02.

Requisites:

- Prerequisites: ML016.
- Corequisites: none.

Brief description of the course:

This course provides students with the knowledge of the general theories of socialism and practice in the construction course of socialism in our country today. The main contents of this course focuses on a number of issues such as: the birth and development of scientific socialism, the historical mission of the working class, socialism and the transition to socialism.

4.23. History of the Communist Party of Vietnam (ML019)

Credits: 02.

Requisites:

- Prerequisites: ML018.
- Corequisites: none.

Brief description of the course:

This course provides students with an understanding of the object, purpose, mission, methods of researching and learning Party history and the basic, core, systematic knowledge about the Party's birth (1920-1930); the Party's leadership to guide people to struggle for power (1930-1945); two resistance wars against French colonialists and American imperialists, national liberation and reunification (1945-1975); Party's leading the country in the transition to socialism and carrying out the "Doi Moi" (1975-2018). Thereby, the course can help improve their awareness and belief in the Party and the ability to apply their knowledge into working practice, contributing to the construction and defense of the Socialist Vietnamese Fatherland.

4.24. Ho Chi Minh's Ideology (ML021)

Credits: 02.

Requisites:

- Prerequisites: ML019.
- Corequisites: none.

Brief description of the course:

This course provides students with an understanding of the ideological background, guidelines of the Party and our country's revolution. It offers basic systematic understanding of of Marxist-Leninism and cultural values. The course consists of 7 chapters: Chapter 1 presents the process of founding and developing of Ho Chi Minh's ideology; Chapter 2 to Chapter 7 present basic contents of Ho Chi Minh's ideology, systematic understanding of Ho Chi Minh's ideology and cultural values.

4.25. General Laws (KL001)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides non-major students with basic Marxist-Leninist knowledge about the State and law, from the origin, nature, forms, function as well as types of state and law which have been formed and developed through different socio-economic forms in human history. It also introduces the position of the State in the political system, constitution of the State apparatus, the systems of State agencies, the legal provisions on many issues such as basic rights and obligations of citizens, crimes, violations of administrative law, legal provisions on marriage, divorce, inheritance…

4.26. General Logic (ML007)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides the knowledge of formal logic; rules and requirements of the basic laws of thought such as the law of identity, the law of excluded middle, the law of non-contradiction, and the law of sufficient reason. It also introduces basic forms of thought such as concepts, judgments, inferences, hypotheses, arguments, refutations and fallacies.

4.27. Introduction to Vietnamese Culture (XH011)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides general knowledge about cultural study and Vietnamese culture, about the system of elements, characteristics and development rules of Vietnamese culture and its cultural regions; approaches to understanding and researching issues of Vietnamese culture; practice skills in applying cultural knowledge to analyzing language and literary works.

4.28. Vietnamese in Use (XH012)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course consists of 4 chapters. Each chapter has two main interwoven parts: a summary of the theory and a system of practical exercises. Chapter 1 focuses on writing and spelling; Chapter 2 focuses on word use; Chapter 3 focuses on sentence writing skills; Chapter 4 trains students' skills in creating and receiving texts.

4.29. Administrative-Archives (XH014)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with theoretical and practical knowledge about management documents and archives, ways to realize the role of administrative documents and archival documents for management activities. It also offers solid knowledge about methods of scientific drafting and management of main and archived documents, methods of sorting and classifying documents for archive, knowing how to search and use archives.

4.30. Overview of Sociology (XH028)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with knowledge of the laws of formation, movement, and mutual interaction between people and society. Sociology studies social relations and social interactions expressed through the behavior between people in groups, organizations, and social systems.

4.31. Transferrable Skills (KN001)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with the basic knowledge and instructions for necessary skills: communication skills, general principles of communication, listening skills, speaking and effective presentation skills, teamwork skills, creative thinking skills, time management skills, emotional management skills.

4.32. Entrepreneurship and Innovation (KN002)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with an overview of creating, innovating and forming a startup idea, choosing the type of business ownership, a basic understanding of intellectual property rights, basic market skills and experience sharing from successful entrepreneurs such as SWOT, commercializing products from business ideas, business potentials and startups. Besides, it offers students with fieldtrips to successful businesses.

4.33. Linear Algebra and Analytic Geometry (TN012)

Credits: 04.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with fundamental mathematical knowledge of linear algebra: systems of linear equations, matrices, determinants, vector spaces, linear transformations, eigenvalues, eigenvectors, quadratic forms, and the rudiments of conic sections in a plane, quadric surfaces in a space defined by the standard equation. They can consequently take other optional mathematical and specialised courses. In addition to theoretical issues, students are provided with different practical exercises varied from easy to difficult levels as well as advanced exercises to enhance students' critical thinking skills.

4.34. Probability and Statistics (TN010)

Credits: 03.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with fundamental knowledge of probability and statistics. It enables their skills to solve basic problems of probability and statistics and practical application. It offers important concepts relating to research practice and knowledge of the relationship between experiments and statistical explanation. Students can apply statistics in processing and presenting data analysis in an appropriate, scientific, accurate and persuasive way.

4.35. Electromagnetics and Optics – Introduction (TN016)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course includes 10 chapters, introducing students the knowledge of the formation of electric fields, magnetic fields, interference, diffraction, and the like; fundamental laws and characteristic quantities in electromagnetics and wave optics; properties of conductors, dielectrics, magnetic materials, and lights in the medium. Students later can understand and explain related natural phenomena, and construction and operation principles of electrical, magnetic, and optical equipment. This course provides one of the basic contents for engineering students to study other fundamental and specialised courses.

4.36. Basics of Earth Science (SP075)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with knowledge of the universe (concepts and theories of the universe, cosmological models, the formation of galaxies, hypotheses about the origin of the solar system and the Earth); the solar system (general characteristics of the system, celestial bodies in the system); the Earth (the cognitive process of the Earth's shape and the geographical and geophysical significance of its shape and size, structure, state and size; the structure and state of matter of the Earth's interior, some characteristics of the Earth, the movements of the Earth - the Earth's rotation and orbit, the path of Earth-Moon system and the consequences of these movements) and the geographical crusts of the Earth (partial crusts, principles that exists and impacts the crusts, the geographical environment and its influences on social life and resource types in the geographical environment.

4.37. Basic Geodesy (MT155)

Credits: 03.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

Geodesy is the science of surveying the Earth's surface to identify its shape and size, displaying the surface on maps, surveying and laying out buildings. The course offers fundamental knowledge of the Earth, its coordinates and height systems. It also provides methods of surveying, designing survey areas, processing and calculating site survey values.

4.38. Basic Geology (SP015)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with fundamental knowledge of the Earth's structure, the composition of the Earth's crust, and physical properties of mineral crystals so that they can distinguish between mineral crystals and rocks; types of mineral crystals; and types of rocks. This course also offers students the knowledge for explaining natural phenomena related to geodesy such as the effects of water flows on the Earth's surface, the effects of the sea, or the effects of the air on mineral crystals.

4.39. Hydrometeorology (CN004)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides fundamental knowledge of meteorology, climatology, global climate change and capacity for climate restoration; general knowledge of rivers and the formation of flows (surface and groundwater); analysis of

meteorological factors affecting the hydrological regime; hydrological characteristics of tide-affected areas (the Mekong Delta).

4.40. Pedology A (NN230)

Credits: 03.

Requisites:

- Prerequisites: none.
- Corequisites: SP015.

Brief description of the course:

This course provides the knowledge about the origin of soil genesis, soil composition, and basic important physical properties of soil which impact soil fertility including unit weight, density, and states of water in soil. It offers students fundamental knowledge of soil chemistry, including basic chemical properties of soil and chemical processes in soil. Students are also provided with knowledge related to soil classification and mapping. The course focuses on students' practical experiences and enable them to analyse and assess basic physical and chemical properties of soil and to identify a soil profile in which the sulfuric horizon and the sulfidic horizon are primarily focused. These horizons pose major obstacles to agricultural cultivation in the Mekong Delta.

4.41. Land Evaluation (NN508)

Credits: 02:

Requisites:

- Prerequisites: NN230.
- Corequisites: none.

Brief description of the course:

This course offers basic knowledge of land characteristics and application of the procedures for planning land units based on land qualities. It presents relations between land characteristics and land use and affecting factors for land-use systems. It also provides students with evaluation methods of land adaptability to learn basic knowledge for practical land use division.

4.42. Basics of Remote Sensing (NN288)

Credits: 02.

Requisites:

- Prerequisites: none.

- Corequisites: none.

Brief description of the course.

This course offers the knowledge of development history of remote sensing science and common remote sensing systems in the world; fundamental principles of remote sensing, physical basis, methods collecting and analysing remote sensing data; general issues of electromagnetic radiation, solar radiation energy, solar radiation energy transformation in the Earth's atmosphere, characteristics of spectral reflectance of natural targets such as soil, water, and vegetation, and factors influencing these characteristics; general concepts and principles of photogrammetry. It also provides students with basic knowledge to interpret remote sensing images and procedures for creating thematic maps in state land management using remote sensing image data.

4.43. Geographic Information System- Global Positioning System (GIS-GPS) (MT266)

Credits: 03.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course offers the knowledge of components and functions of Geographic Information System (GIS), skills of building and developing a geodatabase and analysing spatial as well as non-spatial data; the process of creating and editing thematic map in a common GIS software. It also introduces some applications of GIS in environmental and natural resource management and land management.

4.44. Management of Land Administrative Records (NN257)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with an overview of filings including concepts, characteristics, the significance of records to be filed, archives and filing

methods. It also offers the knowledge of state management documents on land and mapping survey data, filing and managing land records.

4.45. Land Use Inventory and Change Management (NN262)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with general issues on land registration and land change registration, land use right certificates (LURC) , house ownership and other land related assets including issuances of these mentioned papers; general issues on land statistics and inventory; statistics regulations on mapping and software, inventory and existing land use mapping; general practical exercises for statistics, inventory and existing land use status mapping activities; general issues of land changes and research on land changes in land-use management.

4.46. Scientific Research Method for Natural Resources& Environment (MT418)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with related science overview and scientific academic research. It introduces different steps in conducting a related academic research project from identifying the problem, reviewing the literature, collecting data and writing the research report. It also offers various methods for research designs, sampling, survey and research organisation.

4.47. Environmental Impact Assessment (MT342)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course consists of 03 main parts.

Part 1: The scientific basis of environmental impact assessment: environmental concepts, sustainable development, and environmental impact assessment; nature of the environmental systems, principles of environmental impact assessment.

Part 2: The content of environmental management: knowledge of environmental management, legal basis, and the State's current activities in environmental management.

Part 3: The method of environmental impact assessment: types of environmental projects, writing skills for an environmental impact assessment report, regulations and procedures for getting the approval for appraising environmental impact assessment reports.

4.48. Land Law (KL327)

Credits: 03.

Requisites:

- Prerequisites: KL001.
- Corequisites: none.

Brief description of the course:

This course focuses on the state management over land and land use regime according to the current law in Vietnam. The background knowledge required to be conveyed prior to the two main contents is the general theory of land law (namely the significance of land, issues on land ownership, land legal relationship, and development history of land law through the periods.) The state management over land clarifies the organisation of the system of land management agencies and the role of each agency; conveys and analyses the regulations on land use planning, land allocation, and related issues. The content of land use regime clarifies the rights and the obligations of land users, particularly the transactions of land use rights and financial obligations of land users. The final content is the law on land dispute, grievance resolution, complaints, and lawsuits.

4.49. Techniques of Cadastral Mapping (NN243)

Credits: 03.

Requisites:

- Prerequisites: none.

- Corequisites: none.

Brief description of the course:

This course focuses on different types of maps for land management, including topographic maps, cadastral maps, existing land use status maps, and related maps. Theoretical parts provide knowledge of creating frames of reference served as a basis for mapping, rules, and contents of types of maps.

Practical parts includes exercises for students to practice skills, handle to create cadastral maps, land use status quo maps combined with cadastral maps in specialised software.

4.50. Urban Agriculture (MT157)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course offers fundamental knowledge of urban agriculture, concepts of urban agriculture, roles, benefits, and characteristics of urban agriculture; the relationship between urban residents and urban and peri-urban agriculture in the world; sustainable urban farmers; urban agriculture in the Mekong Delta. It also provides students with the knowledge of on-site agricultural production and achieve harmony with nature in the industrialised and modernised society today.

4.51. English for Natural Resources and Environment (MT199)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with the natural resource and environmental terminology, the understanding of the key terms commonly used in technical materials; a basis for students to comprehend and translate English technical materials.

4.52. French for Science and Technology (XH019)

Credits: 02.

Requisites:

- Prerequisites: FL003.
- Corequisites: none.

Brief description of the course:

This course provides the knowledge of communication in the field of science and technology such as self-introduction (name, occupation, training, and the like), introduction of scientific and technical activities, presentation of projects in science and technology, exchange of technical correspondences, and so on. Particularly, it focuses on technical vocabulary. In addition, the knowledge of the French language and culture is also combined into the syllabus.

4.53. Rural Planning and Development (NN255)

Credits: 02.

Requisites:

- Prerequisites: NN508.
- Corequisites: none.

Brief description of the course:

This course provides fundamental knowledge of rural planning and development (concepts of poverty, underdevelopment, and so on); master the rudiments of rural differentiation, causes, and conditions of poverty in rural regions, thereby enabling students to understand the methods of rural development. Furthermore, students are provided with knowledge of issues related to creating and managing projects in rural planning and development. The course enables them to work in local agencies after their graduation.

4.54. Urban Management (MT158)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

Cities play the role of the nucleus in all the economic, cultural, and social activities and development of a country. Urbanisation at a higher rate inevitably is

a general tendency of the world in general and Vietnam in particular. Therefore, urban management and development are essential and decisive in the development of each city and city networks of the country and the world. Urban management is characterised as a branch of general science that is involved with various branches and levels and conforms to the objective laws of development. To effectively manage cities requires the cooperation of all components in the city network in terms of identifying, analysing and solving problems according to the laws of motion. This course provides the most fundamental knowledge of urban management and development, and the key fields known as the basis of urban development.

4.55. Urban and Regional Planning (MT221)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides the knowledge of strategic analysis and socio-economic development, population and labour distribution, renovation and development of residential network and infrastructure, environmental protection to form a foundation for planning, construction and development of settlements, especially cities within the country or in local regions. It also offers basic contents of principles of urban construction planning design. It introduces detailed regulations related to spatial landscape, architecture, urban landscape to help students thoroughly understand the provisions related to urban and regional planning and management.

4.56. Land Resources Management (NN176)

Credits: 02.

Requisites:

- Prerequisites: NN230.
- Corequisites: none.

Brief description of the course:

This course consists of fundamental concepts of land resources, current situation of land exploitation and use; exploitation of land resources and measures for land rehabilitation and protection. It provides the knowledge of exploitation

and management to keep up with the economic development and preserve the natural resources of the country.

4.57. Cadastral Survey (NN248)

Credits: 04.

Requisites:

- Prerequisites: MT155.
- Corequisites: none.

Brief description of the course:

This course helps students understand the principles of construction of theodolites, distance meters, altimeters, and methods of observing and processing records; issues on setting up plane coordinate and elevation control survey grids for cadastral mapping; methods of setting up cadastral maps and applications in land management. It enables students to master the methods of setting up control survey grids and latitude-longitude traverses and applications in surveying and creating cadastral maps.

4.58. Land Information System/ Land Information Management LIS/LIM (NN250)

Credits: 03.

Requisites:

- Prerequisites: NN243.
- Corequisites: none.

Brief description of the course:

This course enables students to understand and to build a system for land information management and land resource database structures. It introduces subjects related to land management, modern methods, and techniques applied in building and managing land information. This database supports the country, cadastral agencies at all levels, and relevant sectors that need the management and query of land information to choose techniques and management.

4.59. Sustainable Land Resources Development (MT222)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

The course introduces issues on global land use; land and land resources; zoning, aspects and sustainable developments of land resources; methods/tools for assessing sustainable use of land resources; application of mathematical optimisation in planning sustainable land use.

4.60. Land Use Planning (MT419)

Credits: 03.

Requisites:

- Prerequisites: NN508.
- Corequisites: none.

Brief description of the course:

It has been proved that land resources are increasingly scarce and limited given the current pressure and reality of land use situation. Therefore, a reasonable comparison between types of land use and land types is required to maximise stable food production and food security along with protecting our ecological environment and habitat. Land use planning is fundamental in this procedure. Of all requirements for the development and protection of agricultural land, land use planning is the key element.

This course provides students with knowledge from general to detailed, which helps them understand basic concept of land use planning, guidelines on land use and planning, relevant legal documents and support systems used for land use planning.

4.61. Land Ranking and Land Appraisal (NN259)

Credits: 02.

Requisites:

- Prerequisites: NN508.
- Corequisites: none.

Brief description of the course:

The course provides the knowledge of land classification and valuation, the impact of natural and social factors on the formation of land value and land use value, thereby determining land price. It also introduces the methods of land classification based on natural factors that affect land use; social factors, through the responsiveness of infrastructure as the foundation for practicing on the basis of urban land; observation, evaluation and recognisation of the conditions

affecting the classification and price of land. These basic concepts enable students to work in the field of land management at professional agencies after graduation.

4.62. Real Estate Management and Analysis (NN299)

Credits: 03.

Requisites:

- Prerequisites: NN259.
- Corequisites: none.

Brief description of the course:

The real estate market has been formed and is now developing along with the development of the country's economy. It has become an indispensable part of the system of markets in the country's economy, contributing significantly to social stability and promoting the national economy. This course enables students to understand the basic concepts of the real estate market: the reality of real estate market in Vietnam and some countries in the world; valuation, registration, information and trading of real estate; basic measures to promote the formation and development of the real estate market in Vietnam.

4.63. Regulations on Land Inspection (KL423)

Credits: 02.

Requisites:

- Prerequisites: KL327.
- Corequisites: none.

Brief description of the course:

The course introduces students to the basic legal knowledge on inspection such as: concepts, forms and principles of inspection activities; history of inspection; organisational structure, functions, powers and duties of the land inspection system, inspectors, processes, procedures, conducting an inspection as well as handling problems arising during inspection activities.

4.64. Modelling in Land Management (MT223)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course consists of two sections, namely theory and practice. The theory section includes the basics about modelling: process of model operating; method of multi-agent modelling; method of adjusting parameters; method of verifying results and applying modelling in forecasting factors of population and land use for land management. The practice section consists of four assignments designed to guide students step by step in constructing a model in the field of land resources using GAMA, containing four main topics: constructing a multi-agent model, rendering simulated results in graphic form and graphs, parameter calibration and model verification, constructing practical forecasting scenarios in land management.

4.65. Graphics and Urban Landscape Design (MT224)

Credits: 03.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course offers the basic knowledge about concepts, types of landscape architecture, trends in the development of urban landscape design art; graphic principles, urban landscape design; knowledge on natural and social features that affect landscape design; the relationship between landscape space and urban space; basic technical parameters in building design, urban greenery, knowledge on graphic design, 2D and 3D drawing software.

4.66. Remote Sensing Applications (NN298)

Credits: 02.

Requisites:

- Prerequisites: NN288.
- Corequisites: none.

Brief description of the course:

This course provides students with the basic principles of remote sensing: physical basis of remote sensing as well as acquiring methods, characteristics of satellite image, characteristics of remote sensing systems; passive and active imaging systems; process of analysing and processing remote sensing images. Thereby, it enables students to apply and exploit remote sensing data into solving actual problems in land and natural resource management.

4.67. Specialised Skills (MT225)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course is based on the actual conditions in administrative agencies and the land management industry such as the agencies' structure and operation, skills on communicating, organising and handling professional situations. It consists of the topics that are in line with new teaching methods, focusing on real-life situations.

4.68. State Management of Land (MT220)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course.

This course provides students with the knowledge of State's land management in Vietnam in accordance with the current laws. It also offers them a better understanding about how the management apparatus of the land management industry in Vietnam is organised.

4.69. Land Resource Economics (MT229)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

Natural resources are divided into two main types: renewable and non-renewable resources which are likely to be exhausted in the future unless their exploitation and usage are managed effectively and sustainably. Land resource economics is a type of renewable resources that also follow the rule. In this course, there is a coherence between economic theoretical aspects and technical aspects that are related to land use. The application of economic rules in the study of

resources is necessary. This course provides basic knowledge, helping managers make suitable decisions in using resources based on their actual basis and policy planners come up with appropriate management policies to encourage people to use land resources more efficiently.

4.70. Management and Mitigation Disaster (MT228)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

Disaster and risk management is derived from the socio-economic development on a global scale. The increased emission of greenhouse gases leads to global warming, sea level rise, etc. leading to extreme regional weather phenomena such as floods, droughts, storms, rising temperatures and unseasonal rains, thereby causing heavy damage to the environment and ecosystems. This course offers students the opportunity to analyse the impacts of natural disasters and propose solutions for risk management in their localities and Mekong Delta, for prevention and response to storms and floods in several regions of the country.

4.71. Career Training (MT458)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with basic technical and professional skills required before graduation that would be beneficial for them to work in land management agencies.

4.72. Land Management _ Practicum (NN261)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course equips students with basic technical and professional skills needed in different professional agencies, depending on specific characteristics of the management mechanism of each locality. It also offers a broad knowledge of how to skilfully and appropriately apply their knowledge in practice. It provides students with more advantages when they start their career in land management agencies.

4.73. Feng Shui - Geomancy (NN521)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with an overview of feng shui (the art of wind and water), basic knowledge on feng shui, the bases of feng shui theory, different schools in feng shui, feng shui tools, applications of feng shui in today's life such as: feng shui in landscape and interior design. It also consists of practical exercises for students to apply feng shui knowledge into specific situations.

4.74. Investigation Methods of Land Resource Information (MT240)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course

This course provides methods of collecting land resource information, selecting research samples, designing questionnaire design and processing information.

4.75. Geostatistics (MT226)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with the knowledge about the relationship and fluctuations of space and time; soil characteristics as well as assessment and interpolation methods are not based on the use of specialised software.

4.76. Livelihood Analysis of Changes in Land Use (MT231)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

Land use changes occur due to a lot of reasons such as land use planning by the Government, influence of the market or climate change. Despite the forms, they impact farmers' livelihoods, so it is necessary to rely on the available resources for development to cope with the new situation and limit the vulnerability of farmers. The Sustainable Livelihoods Framework presents the main factors that affect people's livelihoods and the relationship between these factors, which can be applied in practice. The Framework is people-centred. It neither operates as a straight line nor a practical form. This course is to engage students in a debate about the factors that affect livelihoods, their importance and interactions. Such understanding is useful for students to find the right approaches to support livelihoods.

4.77. Farming System (NN377)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides knowledge about crop cultivation, livestock breeding and fishery; assessment of the natural, economic and social conditions of an area. It consists of six chapters: concepts of farming system; requirements of the farming system; examining the characteristics of the research area; assessing adaptations, obstacles and proposing solutions; technical solutions for farming systems; initiating production.

4.78. Integrated Land Resources Management (MT262)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course offers basic concepts of land resources, land use practice, and land resource management tools to enhance students' knowledge on management and sustainable use of land resources.

4.79. UAV Technology and Applications (MT406)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides students with an overview of unmanned aircraft systems; flight shooting design process, calculation of aircraft altitude, number of flight routes, number of photos taken and total flight time taken. It introduces the use of open source software and commercial software for image processing and acquisition; designing ground control points for flight shooting. In addition, students are offered the opportunity to experience flight shooting with an aircraft equipped with an RGB three-channel camera; to build digital surface model maps and visual maps using UAV data; to apply UAV in agricultural monitoring and land management.

4.80. Seminar on Land Management (MT404)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course introduces the logical nature of scientific research as well as scientific hypotheses; methods of building the theoretical basis of the research topic, methods of information acquisition and processing, the procedure of

implementing a research; how to write a scientific paragraph and prepare presentation files as well as presentation skills.

4.81. Thesis of Land Management (MT503)

Credits: 14.

Requisites:

- Prerequisites: ≥ 120 credits.
- Corequisites: none.

Brief description of the course

In this course, students implement an in-depth scientific research thesis in the field of land management including proposals, experiments, data collection and analysis, report and presentation of their thesis.

4.82. Essay of Land Management (MT453)

Credits: 06.

Requisites:

- Prerequisites: ≥120credits.
- Corequisites: none.

Brief description of the course:

This course enables students to review the basic knowledge of land management, apply the knowledge into handling actual tasks provided by the internship units; have an insight of organizational structure, functions and duties of the State's land management unit..

4.83. Strategy for Land Resource Development (MT261)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course provides basic concepts about land and land resources, the land use reality in Vietnam and around the world; zoning, domains and sustainable development of land resources; methods and tools for land resource management; thus it improves students' knowledge on the management and sustainable use of

land resources; applications of mathematical optimisation in planning sustainable land use.

4.84. Cadastral Database Management System (NN297)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course consists of two sections: theory and practice. The theory section includes the topics of data organisation and user management on CQL Server; methods of organising cadastral record database on SQL Server; exploiting the database of cadastral records; managing and issuing land registration certificates on ViLIS software via computer network. The practice section has five exercises and three main topics: building and managing cadastral and user record databases on SQL Server; installing and configuring the geographic profile management ViLIS software; exploiting the cadastral database with direct data management tools.

4.85. Cadastral Survey Data Processing (MT263)

Credits: 02.

Requisites:

- Prerequisites: MT197.
- Corequisites: none.

Brief description of the course:

This course provides theoretical knowledge of random errors, concepts of functional models and random models of geodetic adjustment. Research of geodetic adjustment methods lays a good basis for studying and researching geodetic grid adjustment.

4.86. Urban Construction Project Management (MT264)

Credits: 02.

Requisites:

- Prerequisites: none.
- Corequisites: none.

Brief description of the course:

This course offers a general knowledge on how to manage a construction project and assess its quality; identify the subprojects and tasks of each phase. It also introduces legal documents that regulate investment in construction projects. It provides students with some methods affecting the project during implementation to ensure the required quality.

4.87. Cadastral Information System Analysis and Design (MT265)

Credits: 02.

Requisites:

- Prerequisites: MT223.
- Corequisites: none.

Brief description of the course:

This course provides students with approaches to study and build an information system and database in the field of environmental resources. Such knowledge benefits them in data-use courses such as Geographic Information System (GIS), Land Information System, and Cadastral Database Management System. The content of the course is divided into two sections: theory and practice. The theory section includes relevant topics about the concept and descriptions of the cadastral information system, how to investigate and collect data for the cadastral information system; method of analysing natural resources and environment information systems using the Entity - Combination model; methods of converting analytical models to relational databases; methods of system interface design for land data management. The practice section includes exercises about system analysis, database model building, interface design in land resources data management situations.

PART 5: TEACHING, LEARNING AND ASSESSMENT METHODS

5.1. Course assessment

- Theoretical courses or combined theoretical and practical courses: Total course grade is calculated from component grades, including: exercise rade, midterm test grade, practice grade, cognitive assessment grade, discussion grade, attendance grade, project grade and final exam grade. The final exam is required and its grade must have a weight of no less than 50%.

- Practice courses: Total course grade is calculated by an average grade of the practical exercises. Forms of assessment and weights of the component grades are proposed by lecturers, the head of the Department of Land Resources the dean of the CENRes. They are announced in course syllabuses.

5.2. Course grade

- The grades for assessment of courses and the final exam grades are given on a 10-grade scale (from 0 to 10), rounded to one decimal place.

- The course grade is the total grade of all assessment grades of the course multiplied by the corresponding weights. The course grade is calculated on a 10-grade scale and rounded to one decimal place. Lecturers in charge of the course enter the course grades into the online management system; this system automatically converts the course grades on the 10-grade scale to the corresponding ones on letter and 4-grade scales. Table 5.1 presents the course grading system.

Table 5.1: Course grading system

10-grade scale	4-grade scale	Letter scale	Pass/Fail
9.0 – 10.0	4.0	A	Pass
8.0 – 8.9	3.5	B+	
7.0 – 7.9	3	B	
6.5 – 6.9	2.5	C+	
5.5 – 6.4	2	C	
5.0 – 5.4	1.5	D+	
4.0 – 4.9	1	D	
Under 4.0	0	F	Fail

- The passing grade is D. A passed course will be accumulated.

- The course grade will be announced and recorded with a grade on the 10-grade scale and letter scale. The course grade on letter scale then will be converted to a corresponding one on 4-grade scale to calculate the semester grade point average (SGPA) and the cumulative grade point average (CGPA).

5.3. Semester, year and cumulative grade point average

a) The number of cumulative credits is the total number of credits of passed courses.

b) The semester grade point average (SGPA) is a weighted average of the grades of the courses that a student has learned in a semester (including the F-grade and conditional semester except courses of Physical Education), with weights equal to the number of credits of the courses. Thus, the SGPA represents the student's performance over all courses taken (pass or fail) by the student. It is for evaluating academic results, evaluating scholarships, rewarding, and warning academic records after each semester. The SGPA is calculated by the following formula:

$$SPGA = \frac{\sum_{i=1}^{n} a_1 X_1}{\sum_{i=1}^{n} a_1}$$

where: X_1 is the grade of course i;

a_1 is the number of credits of course i;

n is the number of course learned by the student in the semester.

- The year grade point average (YGPA) is a weighted average of the grades of the courses that the student has learned in the two main semesters of the academic year (including the F-grades and conditional semester except courses of Physical Education).

- The cumulative grade point average (CGPA) is a weighted average of the cumulative grades of the courses that have been accumulated up to the time of consideration (excluding F-grade and conditional courses). The CGPA is used for evaluating learning results throughout the student's study period and classifying students' graduation classification.

- Academic classification by semester is based on SGPA; academic classification by year is based on the YGPA, as shown in Table 5.2.

Table 5.2: Student Classification by SGPA or YGPA

Classification	SGPA or YGPA
Excellent	3,60 – 4,00
Good	3,20 – 3,59
Fair	2,50 – 3,19
Average	2,00 – 2,49
Weak average	1,00 – 1,99
Weak	< 1,00

5.4. Training grade

CTU considers and evaluates the training result of students, which is the assessment of learners' consciousness and attitudes according to the points achieved on the following aspects:

- Consciousness of participation in learning;
- Consciousness of observing the rules, regulations and regulations in the school;
- Awareness of participating in political, social, cultural, cultural, sports activities, crime prevention and social evils;
- Citizen awareness in community relations;
- Awareness and results when participating in class staff, unions, and organizations in schools or learners achieve special achievements in study and practice.

The training grade is assessed for each semester of the two main semesters by a scale of 100. The training result is classified into the following categories: excellent, good, fair, average, weak and poor (Table 5.3).

Table 5.3: Classification of the training result

Classification	SGPA or YGPA
From 90 to 100	Excellent
From 80 to 89	Good
From 70 to 79	Fair
From 60 to 69	Above average
From 50 to 59	Average
From 30 to 49	Weak
Under 30	Poor

The training grade is used to rank the priority among students when awarding scholarships.

5.5. Graduation classification

Graduation classification is determined based on the cumulative grade point average (CGPA) according to the levels in Table 5.4.

Table 5.4: Graduation Classification

Classification	CGPA
Excellent	3.60 – 4.00
Good	3.20 – 3.59
Fair	2.50 – 3.19
Average	2,00 – 2,49

Excellent and excellent graduation classification will be decreased by one level if students fall into one of the following categories:

- The volume of the courses with F grade exceeds 5% of the total number of the credits of the programme curriculum (excluding the volume of the courses that improve the F grade).

- Having been disciplined from the school-level warning level during the school period.

PART 6: LEARNING ENVIRONMENT

6.1. Library

The Learning Resource Center (LRC) is built on a land area of 7,560 m^2 and is one of the largest learning resource centers in the country. LRC provides a wide range of books, textbooks, and reference materials in Vietnamese and foreign languages which are changed and updated regularly. There is a total of 139,289 titles and 306,117 book copies. There are 1,397 titles and 2,054 book copies in the IT field. The center also has electronic library systems and electronic databases (such as ProQuest, Springerlink, Ebrary, Research4Life, etc) that provide documentation in almost every field of teaching and research, allowing users to access from both inside and outside the university, effectively meeting the requirements of lecturers and students. In addition, the LRC has 400 computers, 3 discussion rooms, 1 audio-visual room and many self-study desks. In addition to the CICT has its own library, College Library, built in an area of 180 m^2, consisting of a reading and self-study room, a library of books and reference materials. Students can visit this library during the office hours, 7h30 to 11h30 and 13h30 to 17h, Monday to Friday. The college library has about 1.007 books and reference materials (total of 2.000 books), including 158 journals and 1,200 graduated theses of students.

The College Library ensures to provide the most complete and up-to-date resources. At the peak, the number of students using the college library resources was over 50 turns a day.

6.2. Dormitory

The CTU's dormitories have a total of 1,391 rooms which can accommodate 10,200 students. These dormitories are is located on Campus I and II of CTU in Ninh Kieu District, Cantho City. They are convenient places to stay and study for students and foreign visitors. They have yards for playing sports and green outdoor areas, as well as canteens for food.The dorms have professional security forces to guard all 24 hours a day, 7 days a week.

6.3. Natural and social environment

CTU has a healthy living and entertainment environment, including cultural house, multi-purpose gym, swimming pool, stadium, outdoor sports field, park, cafeteria, mini supermarket, etc.

Students have the opportunity to study in a harmonious natural environment. Most of the roads on the campus are covered with many trees. There

are many sidewalks and pedestrian seats. In addition, there are many large and open lawns for students to organize outdoor activities.

The social environment also creates psychological comfort for students. In general, the majority of students are gentle, active and willing to help each other in learning and daily life. Many friendly instructors' help students feel no pressure to communicate.

6.4. Health care

All students and staffs of CTU have health insurance coverage. All of them are supported by CTU a part of the cost of participating in periodic health examination, consultation and care at the beginning of each academic year. In addition, CTU also has medical departments to take care of health, answer questions and provide psychological counseling for the students and staffs.

6.5. Sport

CTU's Gymnastics and Sports Stadium has 2 floors, floor area is 3,465 m^2, usable area is 3,465 m^2; the area of the playing field is 1,000 m^2; the stands can accommodate nearly 1,000 seats. The Stadium hosts courts that can be adapted for indoor volleyball, steam volleyball, futsal football, tug of war, outdoor run, basketball, javelin, weightlifting and team games, etc. for students' courses of Physical Education and sports services after office-hours.

CTU also has a Gymnasium that serves for sports such as badminton, table tennis, soccer, taekwondo, traditional martial arts, volleyball courts, outdoor basketball, etc. The Gymnasium serves as a training facility for the students as well as staffs not only to train themselves for the sport activities but also to keep them fit.

6.6. Extra-curricular activities

The Youth Union plays an important role in implementing extra-curricular activities for students. The main activities that this organization has been implementing include: cultural, music and sports exchanges; social activities; academic activities; international relation activities (e.g. student exchange with universities in Thailand, Taiwan, the Netherlands, Japan; welcoming and exchanging with Korean students). The Youth Union also co-organizes activities in order to interact with students of other universities in Vietnam and in ASEAN University Network.

In addition, student associations of provinces as well as in-campus and off-campus associations also have many extracurricular activities for the students to attend. The Youth Union has always maintained well the mobilization of students

to volunteer in activities such as labor, environmental sanitation, landscape, competition season relay, humanitarian blood donation, etc.

6.7. Internet

The CTU Wi-Fi system allows students to access the internet for searching and updating learning information, course registration and withdrawal, keeping in touch with family and friends via social networks and emails.

PART 7: AFTER GRADUATION

7.1. Career prospects

- Graduates are able to work in the management and administration positions:

- researcher, manager, technical staff working for State administration offices or organisation from central to commune in the area of land management such as Ministry of Natural Resources and Environment, Provincial Departments of Natural Resources and Environment, Technical Resource Centers, Land Fund Development Centers, Provincial Land Use Right Registration Offices, Departments of Natural Resources and Environment, registration offices, land fund development centers of districts, Cadastral offices of communes/wards

- specialist working for the People's Committees of a province/city/district/research institute such as Institute of Cadastral Research, Institute of Natural Resources and Environment, Institute of Planning and Design, Department of Vietnam Institute of Geodesy and Cartography, Department of Land Management, Provincial Sub-department of Land Management, Department of Finance, Department of Planning and Investment, Department of Science and Technology, Department of Home Affairs, Department of Agriculture and Rural Development.

- government officer or technical officer working for sub-departments, centers or offices such as: sub-department of land management, sub-department of environment, technical center for land resources and environment; center for real estate exploitation and business; industry zones; economic zones.

- consultant working for companies such as Mapping and surveying companies, real estate brokerage and valuation companies; land and real estate projects, land valuation units (banks, valuation companies, etc.).

- Academic staff, teacher or researcher at research institute in land management, universities, colleges, vocational schools, education and training institutions offering majors in agriculture, association, vocational training center

7.2. Further study

- Graduates are able to study at higher levels (i.e.master's and doctoral) in: land management, resources management, soil science, rural development, real estate market management and other related study fields.

- They are able to self-study and upgrade qualifications for better performance at work.

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