

CHƯƠNG TRÌNH ĐÀO TẠO TRÌNH ĐỘ ĐẠI HỌC

UNDERGRADUATE PROGRAM

*(Ban hành theo Quyết định số: /QĐ-ĐHNCT ngày tháng năm 2025 của
Hiệu trưởng Trường Đại học Nam Cần Thơ)*

*(Issued together with Decision No. /QĐ-ĐHNCT dated / /2025 of
The Rector of Nam Can Tho University)*

Tên chương trình (Name of program): Civil Engineering
Trình độ đào tạo (Level): Undergraduate
Ngành đào tạo (Major): Civil Engineering
Mã số (Code): 7580201
Loại hình đào tạo (Type of education): Official

1. Mô tả chương trình đào tạo (Program description)

1.1. Giới thiệu về chương trình đào tạo (Introduction to the program)

1.2. Thông tin chung về chương trình đào tạo (General information about the program)

Tên chương trình (Tiếng Việt) (Name of program in Vietnamese)	Kỹ thuật xây dựng
Tên chương trình (Tiếng Anh) (Name of program in English)	Civil Engineering
Mã ngành đào tạo (Program code)	7580201
Trường cấp bằng (Degree-granting institution)	Nam Can Tho University
Tên gọi văn bằng (Degree)	Civil Engineering
Trình độ đào tạo (Level)	Undergraduate Degree
Số tín chỉ yêu cầu (The number of required credits)	154
Hình thức đào tạo	Official

<i>(Type of education)</i>	
Thời gian đào tạo <i>(Program duration)</i>	4.5 years
Đối tượng tuyển sinh <i>(Eligible candidates for admission)</i>	High school graduates
Thang điểm đánh giá <i>(Grading scale)</i>	4
Điều kiện tốt nghiệp <i>(Graduation requirements)</i>	<ul style="list-style-type: none"> - Accumulate enough modules and volume of the educational program to reach 151 credits; - Meet the output standards for English and Computer skills according to the University's regulations; - Meet the output standards of Soft and Professional Skills; - Have a certificate of National Defense and Security Education and complete the required modules.
Vị trí việc làm <i>(Job opportunities)</i>	<ul style="list-style-type: none"> - Employees at the management boards of Departments and District People's Committees; Department of infrastructure, - Design staff at Architectural Institutes, Departments of Construction, ... - Technicians and supervisors at businesses and organizations related to the construction industry. - Science and technology research staff in construction research institutes. - Teaching staff at Universities, Colleges, and Intermediate Schools in the field of construction.
Học tập nâng cao trình độ <i>(Postgraduate study options)</i>	Continue to study for a master's degree in Vietnam and abroad.
Chương trình tham khảo <i>(Reference program)</i>	Undergraduate training program in Construction Engineering at Can Tho University, Can Tho University of Engineering and Technology, Ho Chi Minh City University of Technology, Ho Chi Minh City University of Architecture.
Thời gian cập nhật <i>(Update time)</i>	15/5/2025

1.3. Mục tiêu đào tạo *(Program goals)*

1.3.1. Mục tiêu chung *(General goals)*

PO: The goal of the Civil Engineering program is to train:

- Civil Engineers in charge of design, construction, supervision consulting, and management of construction projects.
- Science and technology research staff in construction research institutes.
- Teaching staff at Universities, Colleges, and Intermediate Schools in the field of construction.

After graduation, they have good political and moral qualities, have knowledge and skills for professional practice, have the ability to self-study, research, be creative and solve legal requirements and problems. constructive theory and practice, able to adapt to the working environment, self-adapt for life-long learning, conscious of serving the people.

1.3.2. Mục tiêu cụ thể (*Specific goals*)

- **PO1:** Understand basic problems of Marxism-Leninism, Revolutionary policy of the Communist Party of Vietnam, Ho Chi Minh Thought, Vietnamese laws, National Defense policy;
- **PO2:** Have basic knowledge of mathematics, natural sciences and basic engineering suitable for the civil construction to acquire and master specialized and specialized knowledge and skills about construction;
- **PO3:** Have in-depth knowledge in the field of civil and industrial construction, including surveying, measuring, geology, foundations, construction structures, knowing how to design construction structures, and design organizational technology. construction officials;
- **PO4:** Know and master forecasts, estimates, economic analysis, management, organization, supervision, construction direction and management, administration and exploitation of civil and industrial construction projects; Able to apply basic scientific knowledge and industry foundations such as: General information technology, Graphics - Technical drawing, Construction mechanics, Construction materials... in learning knowledge Specialized knowledge of civil and industrial construction;
- **PO5:** Equipped with specialized knowledge in civil and industrial construction such as: Civil and industrial architecture, Reinforced concrete structures, steel structures, Foundations, Electrical engineering, Water supply and drainage, Engineering construction, Construction Management, Construction estimation, ... to calculate design; establish measures, organize, manage and administer construction; Supervision of construction of civil and industrial construction projects;
- **PO6:** Have the ability to self-study, self-research, experience and soft skills to self-develop professionally and be creative in solving practical problems in the field of construction. Work independently, research and solve problems independently, master situations, work in groups, organize and arrange work effectively;
- **PO7:** Have professional ethics, and responsibility towards work, school, community and society;

1.4. Chuẩn đầu ra của chương trình đào tạo (*Student learning outcomes*)

The program is designed to ensure graduates gain the following specific knowledge, skills,

autonomy and responsibilities

a. **Về kiến thức (Knowledge)**

- **SO1:** Understand basic knowledge of Marxism-Leninism, Ho Chi Minh's ideology, revolutionary guidelines of the Communist Party of Vietnam, Vietnamese law, national defense and security in professional activities and life. Apply knowledge about National Defense Education, thereby training awareness and responsibility to protect the homeland.
- **SO2:** Understand and apply basic knowledge of mathematics, natural science and basic engineering to manage, organize and supervise construction activities.
- **SO3:** Understand and apply professional knowledge about architecture, structures, geology, foundations, and specialized software to design and execute construction projects.
- **SO4:** Understand and apply professional knowledge of estimating, construction economic analysis, construction techniques, construction organization, construction management, to be able to manage, supervise, and organize construction , and management of civil and industrial construction projects.

b. **Về Kỹ năng (Skills)**

- **SO5:** Analyze, synthesize, evaluate and apply the knowledge accumulated during the study process into actual professional practice, solving problems in the construction field according to requirements and set goals;
- **SO6:** Design and read construction drawings proficiently; survey, measure and locate a construction project; Know and be proficient in forecasting, estimating, economic analysis, management, organization, supervision, construction direction and management, administration and exploitation of civil and industrial construction projects;
- **SO7:** Communicate effectively through presentations, reports, discussions, listening and controlling situations. Collaborate, work in groups, organize and arrange work effectively; Instruct, communicate and evaluate the competencies of others in professional and related fields;
- **SO8:** Can write scientific and technical reports. Present, answer, and criticize issues in the specialized field of construction engineering through words, images, and multimedia software;

c. **Về Năng lực tự chủ, tự chịu trách nhiệm (Capacity for autonomy and responsibility)**

- **SO9:** Demonstrate civic responsibility, political qualities, patriotism and love of work; Understand and properly implement regulations on personal ethics, professional ethics, personal responsibility and responsibility for the group. Have a persistent, hard-working, disciplined, confident, enthusiastic, honest and objective attitude in life and work;
- **SO10:** Work independently and in groups in changing working conditions, expressing personal perspectives on problems that need to be solved. Plan, coordinate and effectively manage activities;

1.5 Phương pháp/chiến lược dạy- học và phương pháp kiểm tra đánh giá
(Teaching and learning methods/strategies and assessment methods)

1.5.1. Phương pháp/chiến lược dạy – học (Teaching and learning

methods/strategies)

Các phương pháp dạy học được trình bày trong bảng sau (*The teaching methods are presented in the table below*)

Phương pháp, hình thức tổ chức dạy học (<i>Methods and form of teaching</i>)	Mục đích (<i>Purpose</i>)
Thuyết trình (<i>Presentation</i>)	Provide students with the basic knowledge system of the subject scientifically and logically.
Thảo luận (<i>Discussion</i>)	Through the question and answer between lecturers and students to clarify the content of knowledge in the subject.
Bài tập, thực tập (<i>Assignment, practice</i>)	Help students understand and apply the subject content to practical issues.
Nghiên cứu bài học, đọc tài liệu tham khảo (<i>Self-study, reading of reference materials</i>)	Help learners enhance self -study and self -study capacity

1.5.2. Thang điểm, hình thức, tiêu chí đánh giá và trọng số điểm (*Grading scale, form, assessment criteria, and weight of scores*)

TT (<i>No.</i>)	Hình thức (<i>Form</i>)	%	Tiêu chí đánh giá (<i>Assessment criteria</i>)	Điểm tối đa (<i>Maximum score</i>)
1	Chuyên cần (<i>Attendance</i>)	20	- Proactivity, the level of initiative in preparing lessons and participating in activities during class	5
2	Bài tập cá nhân (<i>Individual assignment</i>)	15	- Compulsory attendance, absent no more than 20% of classes. Depending on the number of absent sessions, the lecturer decides the number of points according to the absence rate.	5
3	Bài kiểm tra định kỳ (<i>Progress assessment</i>)	15	- Quality of delivered products. - Test evaluation criteria (specified by the instructor) - Report to groups or topics or specialized exercises according to the regulations of the lecturer in charge of teaching.	10
4	Thi kết thúc HP (<i>Final exam</i>)	50	According to the answers, the instructor's grading scale.	10

2. Thời gian đào tạo (*Program duration*):

3. Khối lượng kiến thức toàn khóa (*Required total credits*)

Khối lượng kiến thức toàn khóa: **154** tín chỉ (không tính các học phần Giáo dục thể chất và Giáo dục Quốc phòng - An ninh), được phân bổ như sau:

Required total credits: 154 credits (excluding the Physical Education and Defense and security education courses), distributed as follows:

KHỐI KIẾN THỨC (<i>Knowledge</i>)	Kiến thức bắt buộc (<i>Obligatory knowledge</i>)	Kiến thức tự chọn (<i>Elective knowledge</i>)	Tổng (<i>Total</i>)
Kiến thức giáo dục đại cương (<i>General knowledge</i>)	44		44
Kiến thức giáo dục chuyên nghiệp (<i>Professional knowledge</i>)	101	9	110
- Kiến thức cơ sở ngành (<i>Fundamental knowledge</i>)	45		45
- Kiến thức chuyên ngành (<i>Specialized knowledge</i>)	55	3	58
- Thực tập tốt nghiệp (<i>Graduation internship</i>)	4		4
- Khóa luận tốt nghiệp/Các môn thay thế (<i>Graduation thesis/Alternative courses</i>)	6	6	6
Tổng khối lượng (Total)	145	9	154

4. Đối tượng tuyển sinh (*Eligible candidates for admission*): graduate high school students

5. Quy trình đào tạo, điều kiện tốt nghiệp (*Curriculum, graduation requirements*)

A minimum of 154 semester hours of credit is required for a degree. Institutional credit is academic credit awarded by the University. The following sections describe the requirements which must be met by all students seeking the baccalaureate degree. These include regulations concerning majors, minors, grade point average, upper division courses, and residence.

5.1. Quy trình đào tạo (*Curriculum*)

Kiến thức giáo dục đại cương (General knowledge): 41 TC (credits)

A. Lý luận chính trị: (*Political theory*)

STT (<i>No.</i>)	Tên học phần (<i>Course name</i>)	TC (<i>Credits</i>)	LT (<i>Theor y</i>)	TH (<i>Practice</i>)
1	Philosophy	3	3	
2	Political economy	2	2	

STT (No.)	Tên học phần (Course name)	TC (Credits)	LT (Theory)	TH (Practice)
3	Scientific socialism	2	2	
4	Ho Chi Minh's Thought	2	2	
5	Revolutionary policy of the Communist Party of Vietnam	2	2	
Tổng (Total)		11	11	

B. Khoa học xã hội: (Social Sciences)

STT (No.)	Tên học phần (Course name)	TC (Credits)	LT (Theory)	TH (Practice)
1	General law	2	2	
Total		2	2	

C. Ngoại ngữ: (Foreign languages)

STT (No.)	Tên học phần (Course name)	TC (Credits)	LT (Theory)	TH (Practice)
1	English for Civil Engineering 1	3	3	
2	English for Civil Engineering 2	3	3	
3	English for Civil Engineering 3	3	3	
Tổng (Total)		9	9	

D. Toán – Tin học – Khoa học tự nhiên: (Mathematics - Information Technology - Natural Sciences)

STT (No.)	Tên học Phần (Course name)	TC (Credits)	LT (Theory)	TH (Practice)
1	Advanced Mathematics 1	3	3	
2	Advanced Mathematics 2	3	3	
3	Basic Computer technology	3	2	1
4	Probability theory and mathematical statistics	3	3	
5	Generative Artificial Intelligence Applications.	2	2	
6	Digital Transformation	2	2	
7	General physics	2	2	
8	General Physics – Practice	1		1
Tổng (Total)		19	17	2

E. Giáo dục thể chất: (Physical education)

STT (No.)	Tên học Phần (Course name)	TC (Credits)	LT (Theory)	TH (Practice)
1	Physical education 1 (*)	1		1
2	Physical education 2 (*)	1		1
3	Physical Education 3 (*)	1		1
Tổng (Total)		3		3

F. Giáo dục quốc phòng – An ninh: (Defense and Security education)

STT (No.)	Tên học Phần (Course name)	TC (Credits)	LT (Theory)	TH (Practice)
1	National defense education (*)	8	5	3
Tổng (Total)		8		

Kiến thức giáo dục chuyên nghiệp: (Professional knowledge)**Kiến thức cơ sở ngành (Fundamental knowledge)**

STT (No.)	Tên học phần (Course name)	TC (Credits)
1	Engineering graphics and designs	3
2	Elements of mechanical engineering	3
3	Engineering geology	3
4	Strength of Materials	3
5	Strength of materials - Practice	1
6	Structural analysis 1 (static)	3
7	Structural analysis 2 (hyperstatic)	3
8	Hydraulics engineering	3
9	Soil mechanics	3
10	Soil mechanics - Practice	1
11	Surveying	2
12	Surveying - Practice	1
13	Construction materials	3
14	Construction materials - Practice	1
15	Element of electrical engineering	3
16	Labor safety engineering	3
17	Practice for building drawing	3
18	English for Civil Engineering 4	3
Tổng cộng (Total)		45

Kiến thức chuyên ngành (Specialized knowledge)

STT (No.)	Tên học phần (Course name)	TC (Credits)
1	Civil and industrial architecture	3
2	Civil and industrial architecture – Project	1
3	Reinforced concrete design 1	3
4	Reinforced concrete design 1 – Project	1
5	Reinforced concrete design 2	3
6	Reinforced concrete design 2 - Project	1
7	Construction machines	3
8	Foundation engineering	3
9	Foundation engineering - Project	1

STT (No.)	Tên học phần (Course name)	TC (Credits)
10	Water supply and drainage	3
11	Construction techniques	3
12	Construction techniques - Project	1
13	Construction management	3
14	Construction management - Project	1
15	Computer aided design 1 - (Autocad 2D)	3
16	Computer aided design 2 - (SAP)	3
17	Computer aided design 3 - (ETABS)	2
18	Steel structure	3
19	Research methods and writing scientific reports	2
20	Steel structure design	3
21	Steel structure design - Project	1
22	Construction testing	2
23	Construction testing - Practice	1
24	Construction laws and regulations	2
25	Project estimate	3
	Tự chọn (Elective courses)	3
1	High-rise reinforced concrete building	3
2	Soft soil engineering	3
3	Building information modeling (BIM)	3
4	Low impact development	3
Total		58

Thực tập cuối khóa và viết khóa luận tốt nghiệp (Graduation internship, Graduation thesis)

STT	Tên học phần (Course name)	TC (Credits)
1	Graduation internship	4
2	Graduation thesis	6
Môn thay thế khóa luận (Alternative courses)		
1	Special reinforced concrete structure	3
2	Design a construction project	3

5.2. Điều kiện tốt nghiệp (Graduation requirements)

The specific requirements of a major or related fields concentration are determined by the department or program responsible for the major or concentration subject to approval by the Nam Can Tho University Curriculum Committee.

6. Nội dung chương trình (Program structure)

6.1. Kiến thức giáo dục đại cương (General knowledge)

Stt (No.)	Mã học phần (Course code)	Tên học phần (Course name)	Số TC (Number of credits)	LT (Theory)	TH (Practice)	Thể loại (Category)
A	Lý luận chính trị (Political theory)					
1.		Philosophy	3	3		
2.		Political economy	2	2		
3.		Scientific socialism	2	2		
4.		Ho Chi Minh's Thought	2	2		
5.		Revolutionary policy of the Communist Party of Vietnam	2	2		
B	Khoa học xã hội và nhân văn (Social Sciences and Humanities)					
6.		General law	2	2		
C	Ngoại ngữ (Foreign languages)					
7.		English for Civil Engineering 1	3			
8.		English for Civil Engineering 2	3			
9.		English for Civil Engineering 3	3			
D	Toán – Tin học – Khoa học tự nhiên (Mathematics - Information Technology - Natural Sciences)					
10.		Basic Computer technology	3	2	1	
11.		Generative Artificial Intelligence Applications.	2	2		
12.		Digital Transformation	2	2		
E	Giáo dục thể chất (Physical education)					
13.		Physical education 1 (*)	1		1	
14.		Physical education 2 (*)	1		1	
15.		Physical Education 3 (*)	1		1	
F	Giáo dục quốc phòng – An ninh (National Defense Education)					
16.		National defense education (*)	8	5	3	

(*) Các học phần điều kiện, không tính điểm trung bình chung tích lũy (Prerequisite courses, not included in the cumulative GPA calculation)

6.2. Khối lượng kiến thức giáo dục chuyên nghiệp (Professional knowledge)

TT (No.)	Mã học phần (Course code)	Tên học phần (Course name)	Số TC (Number of credits)	LT (Theory)	TH (Practice)	Thể loại (Category)
Phần kiến thức cơ sở ngành (Fundamental knowledge)						
17.		Engineering graphics and designs	3	3		
18.		Elements of mechanical engineering	3	3		
19.		Engineering geology	3	3		
20.		Strength of Materials	3	3		
21.		Strength of materials - Practice	1		1	
22.		Structural analysis 1 (static)	3	3		
23.		Structural analysis 2 (hyperstatic)	3	3		
24.		Hydraulics engineering	3	3		
25.		Soil mechanics	3	3		
26.		Soil mechanics - Practice	1		1	
27.		Surveying	2	2		
28.		Surveying - Practice	1		1	
29.		Construction materials	3	3		
30.		Construction materials - Practice	1		1	
31.		Element of electrical engineering	3	3		
32.		Labor safety engineering	3	3		
33.		Practice for building drawing	3		3	
34.		English for Civil Engineering 4	3	3		
Phần kiến thức chuyên ngành (Specialized knowledge)						
35.		Civil and industrial architecture	3	3		
36.		Civil and industrial architecture – Project	1		1	
37.		Reinforced concrete design 1	3	3		
38.		Reinforced concrete design 1 – Project	1		1	
39.		Reinforced concrete design 2	3	3		

TT (No.)	Mã học phần (Course code)	Tên học phần (Course name)	Số TC (Number of credits)	LT (Theory)	TH (Practice)	Thể loại (Category)
40.		Reinforced concrete design 2 - Project	1		1	
41.		Construction machines	3	3		
42.		Foundation engineering	3	3		
43.		Foundation engineering - Project	1		1	
44.		Water supply and drainage	3	3		
45.		Construction techniques	3	3		
46.		Construction techniques - Project	1		1	
47.		Construction management	3	3		
48.		Construction management - Project	1		1	
49.		Computer aided design 1 - (Autocad 2D)	3		3	
50.		Computer aided design 2 - (SAP)	3		3	
51.		Computer aided design 3 - (ETABS)	2		2	
52.		Steel structure	3	3		
53.		Research methods and writing scientific reports	2	2		
54.		Steel structure design	3	3		
55.		Steel structure design - Project	1		1	
56.		Construction testing	2	2		
57.		Construction testing - Practice	1		1	
58.		Construction laws and regulations	2	2		
59.		Project estimate	3	2	1	
<i>Học phần tự chọn chuyên ngành 1 (Elective course of specialized knowledge 1)</i>						
60.		High-rise reinforced concrete building	3	3		
61.		Soft soil engineering	3	3		

TT (No.)	Mã học phần (Course code)	Tên học phần (Course name)	Số TC (Number of credits)	LT (Theory)	TH (Practice)	Thể loại (Category)
62.		Building information modeling	3	3		
63.		Low impact development	3	3		
Thực tập tốt nghiệp (Graduation internship)						
64.		Graduation internship	4		4	
65.		Graduation thesis	6		6	
Khóa luận tốt nghiệp/Các môn thay thế (Graduation thesis/Alternative courses)						
66.						
Môn thay thế khóa luận tốt nghiệp (Alternative courses)						
67.		Special reinforced concrete structure	3	3		
68.		Design construction project ^a	3	3		

7. Kế hoạch giảng dạy (dự kiến) (Tentative teaching plan)

7.1. Học kỳ 1 (Semester 1)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Engineering graphics and designs	3	60	30	30	BB
2	English for Civil Engineering 1	3	45	45		BB
3	Generative Artificial Intelligence Applications.	2	30	30		BB
4	Philosophy	3	45	45		BB
5	General law	2	30	30		BB
6	Basic Computer technology	3	60	30	30	BB
7	Physical education 1 (*)	1*			30	ĐK
	Tổng cộng (Total)	17				

7.2. Học kỳ 2 (Semester 2)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Elements of mechanical engineering	3	45	45		BB
2	English for Civil Engineering 2	3	45	45		BB
3	Probability theory and mathematical statistics	3	45	45		BB
4	Political economy	2	30	30		BB
5	Advanced Mathematics 1	3	45	45		BB
6	National defense education (*)	8*	165	75	90	ĐK
7	Physical education 2 (*)	1*	30		30	ĐK
	Tổng cộng (Total)	15				

7.3. Học kỳ 3 (Semester 3)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	General physics	2	30	30		BB
2	General Physics – Practice	1	30		30	BB
3	Advanced Mathematics 2	3	45	45		BB
4	Construction materials	3	45	45		BB
5	Construction materials - Practice	1	30		30	BB
6	Strength of Materials	3	60	30	30	BB
7	Strength of materials - Practice	1	30		30	BB
	Tổng cộng (Total)	14				

7.4. Học kỳ 4 (Semester 4)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Structural analysis 1 (static)	3	45	45		BB
2	Computer aided design 1 - (Autocad 2D)	3	90		90	BB
3	English for Civil Engineering 3	3	45	45		BB
4	Engineering geology	3	45	45		BB
5	Physical Education 3 (*)	1*	30		30	ĐK
6	Digital transformation	2	30	30		BB
	Tổng cộng (Total)	15				

7.5. Học kỳ 5 (Semester 5)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Soil mechanics	3	45	45		BB
2	Soil mechanics - Practice	1	30		30	BB
3	Reinforced concrete design 1	3	60	30	30	BB
4	Reinforced concrete design 1 – Project	1	30		30	BB
5	Surveying	2	30	30		BB
6	Surveying - Practice	1	30		30	BB
7	Ho Chi Minh's Thought	2	30	30		BB
	Tổng cộng (Total)	13				

7.6. Học kỳ 6 (Semester 6)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Structural analysis 2 (hyperstatic)	3	45	45		BB
2	Practice for building drawing	3	90		90	BB

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
3	Computer aided design 2 - (SAP)	3	90		90	BB
4	Reinforced concrete design 2	3	60	30	30	BB
5	Reinforced concrete design 2 - Project	1	30		30	BB
	Tổng cộng (Total)	13				

7.7. Học kỳ 7 (Semester 7)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Element of electrical engineering	3	45	45		BB
2	Revolutionary policy of the Communist Party of Vietnam	2	30	30		BB
3	Steel structure	3	45	45		BB
4	Scientific socialism	2	30			BB
	Tổng cộng (Total)	12				

7.8. Học kỳ 8 (Semester 8)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Civil and industrial architecture	3	45	45		BB
2	Civil and industrial architecture – Project	1	30		30	BB
3	Foundation engineering	3	60	30	30	BB
4	Foundation engineering - Project	1	30		30	BB
5	Water supply and drainage	3	45	45		BB
	Tổng cộng (Total)	11				

7.9. Học kỳ 9 (Semester 9)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	English for Civil Engineering 4	3	45	45		BB
2	Computer aided design 3 - (ETABS)	2	60		60	BB
3	Construction machines	3	45	45		BB
	Selective					
4	High-rise reinforced concrete building	3	45	45		TC
5	Soft soil engineering	3	45	45		TC
6	Building information modeling	3	45	45		TC
7	Low impact development	3	45	45		TC
	Tổng cộng (Total)	11				

7.10. Học kỳ 10 (Semester 10)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Steel structure design	3	45	45		BB
2	Steel structure design - Project	1	30		30	BB
3	Construction techniques	3	45	45		BB
4	Construction techniques - Project	1	30		30	BB
5	Project estimate	3	60	30	30	BB
	Tổng cộng (Total)	11				

7.11. Học kỳ 11 (Semester 11)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Construction management	3	45	45		BB
2	Construction management - Project	1	30		30	BB

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
3	Construction testing	2	30	30		BB
4	Construction testing - Practice	1	30		30	BB
5	Labor safety engineering	3	45	45		BB
	Tổng cộng (Total)	10				

7.12. Học kỳ 12 (Semester 12)

TT (No.)	Tên học phần (Course name)	Số TC (Number of credits)	Tổng số tiết (Total periods)	Số tiết (Class periods)		Loại hình (Category)
				LT (Theory)	TH (Practice)	
1	Construction laws and regulations	2	30	30		BB
2	Research methods and writing scientific reports	2	30	30		BB
3	Graduation internship	4	120		120	BB
4	Graduation thesis	6	180		180	TC
	Special reinforced concrete structure	3	60	30	30	TC
	Design a construction project	3	60	30	30	TC
	Tổng cộng (Total)	14				

(*) Nếu sinh viên không đủ điều kiện thực hiện khóa luận tốt nghiệp, sẽ học các học phần thay thế. (If students do not meet the requirements to complete their graduation thesis, they will take alternative courses)

8. Hướng dẫn thực hiện chương trình (Guidelines for Program Implementation)

8.1 Đối với Khoa và Bộ môn (Faculties and departments)

- Incharges of other departments are required to prepare academic plan at department level referring to institutional academic plan.

8.2 Đối với giảng viên (Lecturers)

- All lecturers/Senior lecturers are required to prepare course level and class level lesson plans referring departmental academic plan.

- Teachers are required to prepare a course plan, taking into account departmental academic plan, number of weeks available and courses to be taught.
- Teachers are required to prepare lesson plan for every theory class. This plan may comprise of contents to be covered, learning material for execution of a lesson plan.
- Teachers are required to plan for expert lectures from field/industry. Necessary steps are to plan in advance, identify field experts, make correspondence to invite them, take necessary budgetary approval etc.
- Teachers are required to plan for guided library exercises by identification of course specific experience requirement, setting time, assessment, etc. The assignments and seminars can be thought of as terminal outcome of library experiences.

8.3 Đối với sinh viên (*Students*)

- The student centred activities may be used to develop generic skills like task management, problem solving, managing self, collaborating with others etc.
- Where ever possible, it is essential to use activity based on learning rather than relying on delivery based conventional teaching all the time.
- Students may be given relevant and well thought out project assignments, which are purposeful and develop practical skills. This will help students in developing creativity and confidence for their gainful employment.

8.4 Cơ sở vật chất, trang thiết bị phục vụ giảng dạy và thực hành, thực tập

(Facilities and equipment for teaching, practice, and internships)

- Lecture halls, practice rooms, workshops, laboratories and other facilities for research activities
- Library
- Textbooks and documents
 - + Vietnamese language material reading room
 - + Foreign language material reading room

**Hiệu trưởng
RECTOR**

**Phòng Quản lý Đào tạo
DEPARTMENT OF
ACADEMIC AFFAIRS**

**Khoa
FACULTY**