Course Syllabus

1. **Course Title:** Construction Economy
2. **Course Code:** COEC321119
3. **Credit Units:** 2 (3/0/6) (3 units of theory/ 0 unit of practice/ 6 units of self-study)
   Duration: 10 weeks (3 hours of theory, 0 hours of practice, and 6 hours of self-study per week)
4. **Course Instructors**
   1/ MSc. Nguyễn Thanh Tú
   2/ MSc. Nguyễn Văn Khoa.
   3/ Dr. Hà Duy Khánh
5. **Course Requirements**
   Prerequisite courses: None
   Previous courses: None
   Parallel courses: None
6. **Course Description**
   This subject equips students with general knowledge about economic characteristics of construction field and provides some methods for identifying construction cost, as well as the basic knowledge of economics and technologies which aim to assess, compare some of methods of project investment to choice the best solution. Especially, this subject provides knowledge that help students calculate the implementation cost (project estimating) for a small and medium construction project according to the items of Vietnam regulations and standards. In addition, this subject helps students in understanding the impact of economic factors on construction project efficiency
7. **Course Goals**

Goals	Goal Description	Programme ELOs
G1	Use advanced fundamental knowledge of economy for construction engineering: estimate kinds of cost of project, evaluate effectiveness of investments regards economy, effect of applying advanced Techniques to project cost and calculate engineer estimate…	1.3
G2	Experience of professional skills and ethics	2.5
G3	Development of soft skills necessary to needs of study and profession**.**	3.1, 3.2
G4	Applying knowledge to benefit society.	4.1

8. **Course Learning Outcomes (CLOs)**

CLOs		CLO Description	Programme ELOs
G1	**G1.1**	Apply knowledge of management in investment phase. Explain the roles of technology applied in construction field	1.3
	G1.2	Evaluate the effectiveness of investments regards economy in each	1.3

		phase of a project.	
	G1.3	Show the process of design phase and its criteria.	1.3
	G1.4	Explain types of cost in a project, calculate the engineer estimate of building with small or medium size.	1.3
	G1.5	Show types of capital of a construction company	1.3
G2	**G2.1**	Perceive professional skills, responsibility, and ethics.	2.5
G3	**G3.1**	Develop experience of collaborative group-working	3.1
	G3.2	Develop report-writing and presentational skills	3.2
G4	**G4.1**	Recognize the impact of construction engineering solution in global, economic, environmental, and societal context, and vice versa.	4.1

9. Learning Resources

- Textbooks:
  1. FCE, Lecture notes
  2. Kinh tế xây dựng, Nguyễn Công Thạnh, Nhà xuất bản đại học Quốc Gia TP HCM.
  3. Giáo trình dự toán cơ bản, Bộ Xây Dựng, Nhà xuất bản Xây dựng.
  4. Laws, decrees of government.
- References:
  1. Giáo trình kinh tế xây dựng, Bùi Mạnh Hùng (chủ biên), Nhà xuất bản xây dựng.
  2. Giáo trình kinh tế xây dựng, trường Đại học Xây dựng Hà Nội.
  3. Giáo trình kinh tế Xây dựng, Bộ Xây dựng, Nhà xuất bản Xây dựng.

10. Student Assessment

- Grading scale: **10**
- Assessment plan:

Type	Content	Timeline	Assessment method	CLOs	Rate (%)
Assigments					**30**
BT#1	Exercises about evaluating the effectiveness of investments regards economy.	Week 4	Contest	G1.2	10
BT#2	Exercises about explaining types of cost in a project, showing the process of design phase and its criteria	Week 6	Contest	G1.3	10
BT#3	Calculate the types of cost of engineer estimate.	Week 9	Contest	G1.4	10
Report - Presentation					20
BT#4	Every student calculate engineer estimate of a detached house or villa including at least 50 tasks	Week 10	Document	G1.3, G1.4, G2.1, G3.1,	20
Final exam					**50**
BT#8	Content of the exam includes all the outcomes of the course.		Multiple choice contest	G1.1, G1.2	50

	Duration: 60 minutes			G1.3, G1.4, G2.1, G2.2, G3.2, G4.1	
Total					**100**

11. Course Content

Week	Content	CLOs
1	***Chapter 1:*** **Overview** *(3h,0h,06h)*	
	A/ Content and pedagogical methods in class*: (3h)* **Content:** 1.1 The roles and the research subjects of construction economy. 1.2 Research method and study method. 1.3 Knowledge about economic management. **Pedagogical methods**: + Presentation of lecture	G1.1, G4.1
	B/ Self-study content: *(6h)* 1.4 Characteristics of construction industry and of a building.	G4.1
2	***Chapter 2:*** **Management of Government - Decision analysis** *(3h,0h,06h)*	
	A/ Content and pedagogical methods in class*: (3h)* **Content:** 2.1 Management of Government - Definition: project, construction project, construction management. - The roles of governments in construction management. - Classification construction projects - Procedures of construction project - Content of investment project. **Pedagogical methods**: + Presentation of lecture	G1.2, G3.2, G4.1
	B/ Self-study content: *(6h)* + Students collect a investment project and analyze its contents.	G1.2, G4.1
3	***Chapter 2:*** **Management of Government - Decision analysis** *(3h,0h,06h) (cont.)*	
	A/ Content and pedagogical methods in class*: (4h)* **Content:** 2.2 Decision analysis - Overview and criteria of evaluating the effectiveness of the construction investment. - The methods of evaluating the effectiveness of the construction investment. - The currency value. **Pedagogical methods**:	G1.2, G3.2, G4.1

	+ Presentation of lecture + Group discussion.	
	B/ Self-study content: *(6h)* + Exercises about currency value.	G1.2, G4.1
4	***Chapter 2:*** **Management of Government - Decision analysis** *(3h,0h,06h) (cont.)*	
	A/ Content and pedagogical methods in class*: (3h)* **Content:** 2.2 Decision analysis (cont.) - Methods to evaluating the construction investment in economic field: NPV, IRR, Payback time, ROI). **In-class practice:** Present *BT#1* **Pedagogical methods**: + Presentation of lecture + Group discussion	G1.2, G3.2, G4.1
	B/ Self-study content: *(6h)* + Students collect other methods to evaluating the construction investment in economic field: NFV, profit method…	G1.2, G4.1
5	***Chapter 3:*** **Applying technologies** *(3h,0h,6h)*	
	A/ Content and pedagogical methods in class*: (3h)* **Content:** 3.1 Concept, roles, classification of construction technologies. 3.2 Characteristics of construction technologies. 3.3 Method to determinate the price of product when applying new technology in construction field. **Pedagogical methods**: + Presentation of lecture + Present a video clip.	G1.1, G3.1
	B/ Self-study content: *(6h)* + Industrialized construction.	G1.3
6	***Chapter 4:*** **Construction design** *(3h,0h,6h)*	
	A/ Content and pedagogical methods in class*: (3h)* **Content:** 4.1 Principles in designing a project. 4.2 Procedures and contents of design phase. 4.3 Criteria in evaluating the design product. **In-class practice:** Present *BT#2* **Pedagogical methods**: + Presentation of lecture	G1.3, G3.1

	B/ Self-study content: *(6h)* + Students collect decrees, laws related to contruction design phase.	G1.2
7	***Chapter 5:*** **Building engineer estimation** *(3h,0h,6h).*	
	A/ Content and pedagogical methods in class*: (3h)* **Content:** 5.1 Definition and basic characteristic. 5.2 Basic knowledge. 5.3 Rules. 5.4 Content of building engineer estimation 5.5 Materials. **Pedagogical methods**: + Presentation of lecture + Present a building engineer estimation of a project.	G1.4, G2.1, G3.1
	B/ Self-study content: *(6h)* + Practice reading drawings. + The procedure to build a house.	G1.4, G2.1,
8	***Chapter 5:*** **Building engineer estimation** *(3h,0h,6h) (cont.)*	
	A/ Content and pedagogical methods in class*: (3h)* **Content:** 5.6. Kinds of cost. **Pedagogical methods**: + Presentation of lecture + Group discussion	G1.4, G2.1, G3.1
	B/ Self-study content: *(6h)* + Students collect decrees, laws related to cost in construction field.	G1.4, G2.1,
9	***Chapter 5:*** **Building engineer estimation** *(3h,0h,6h) (cont.)*	
	A/ Content and pedagogical methods in class*: (3h)* **Content:** 5.7 Building estimation table 5.8 Costs of material , labor and machine for construction work . 5.9 Synthetic materials and price difference table 5.10 General construction estimation table 5.11 Notices **In-class practice:** Present *BT#3* **Pedagogical methods**: + Presentation of lecture	G1.4, G2.1, G3.1
	B/ Self-study content: *(6h)* + Students calculate building engineer estimation for a house with small size (at least 50 tasks included).	G1.4, G2.1,
10	***Chapter 6:*** **Capital of a construction company** *(3h,0h,6h)*	

	A/ Content and pedagogical methods in class*: (3h)* **Content:** 6.1 Definition of capital of a construction company. 6.2 Types of capital: - Fixed capital. - Working capital. **In-class practice:** Hand out *BT#4* **Pedagogical methods**: + Presentation of lecture + Present BT#4.	G1.5, G2.1, G4.1
	B/ Self-study content: *(6h)* + Review the course.	G1.2, G2.2, G4.2, G3.1

12. Learning Ethics

Students must do homework by themselves. If plagiarism is found students will get zero point.

13. Date of first approval: August 1st, 2012

14. Approved by

Dean	Head of Department	Instructor
A/Prof. Dr. Nguyễn Trung Kiên	**MSc. Nguyễn Văn Khoa**	**MSc. Nguyễn Thanh Tú**

15. Date and Up-to-date content

1st time: Date:	Instructor: Head of Department: