

## RQ02012: LANDSCAPE DESIGN AND CONSTRUCTION 1

### 1. General information

- Term: 3
- Credits: **Total credits 2 (Lecture: 1,5 – Practice: 0,5) - Self-study: 6 credits**
- Credit hours for teaching and learning activities: 30 teaching hours
  - Lectures: 17 teaching hours (1 section/week, 3 teaching hours/section, 50 minutes/teaching hour. Total in 6 weeks)
  - Presentation: 5 teaching hours (2 sessions, 2-3 teaching hours/section, 50 minutes/teaching hour).
  - Practice in the project: 8 teaching hours (1 section/week, 6 teaching hours/section, 50 minutes/teaching hour)
- Self-study: 90 teaching hours (50 minutes each)
- Department conducting the course:
  - Department: Horticulture & Landscape
  - Faculty: Agronomy
- Kind of the course:

Foundation <input type="checkbox"/>		Fundamental <input checked="" type="checkbox"/>		Option 1 <input type="checkbox"/>		Option 2 <input type="checkbox"/>	
Compulsory	Elective	Compulsory	Elective	Compulsory	Elective	Compulsory	Elective
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Prerequisite course(s): RQ02010: Principles of landscape design.

### 2. Course objectives and expected learning outcomes

#### \* *Course objectives:*

- Knowledge: the course provides students with knowledge on the process of creating, managing, and constructing a landscape project.
- Skills: The course trains student skill in analytical and problem-solving, using information technology for landscape design, and construction of basic landscape layout.
- Attitude: The course gives students an attitude toward environmental protection and updates their knowledge when there are opportunities; to determine their capacity in conveying design ideas into landscape construction.

#### \* *Course expected learning outcomes*

Notation	Course expected learning outcomes (CELOs) After successfully completing this course, students are able to	Program performance criteria (PPC)
<b>Knowledge</b>		
<b>CELO 1</b>	Applying knowledge, technical advances and new technologies to the construction, construction and management of landscape works.	3.3
<b>Skills</b>		
<b>CELO 2</b>	Proficiently apply planning and time management skills in building construction documents, construction plans and as-built documents for landscape works.	4.1

<b>CELO 3</b>	Behave appropriately with stakeholders by providing adequate information and clearly explaining landscape work items to investors and construction technicians.	5.4
<b>CELO 4</b>	Proficiently use office computer software to calculate the volume of materials for construction of landscape works.	5.6
<b>Attitude</b>		
<b>CELO 5</b>	Take responsibility to protect the environment	9.2
<b>CELO 6</b>	Determine your own capacity in conveying design ideas into landscape construction.	10.1

### 3. Course description

PNH02012. Landscape design and construction 1. (2TC: 1.5 - 0.5 - 6): The course includes contents of the step of the landscape construction process; types of materials and their applications in landscape construction; knowledge of organization and construction techniques of items such as paths, water elements and tree coordination of landscape works.

### 4. Teaching and learning & assessment methods

<b>CELOs</b>	<b>CELO1</b>	<b>CELO2</b>	<b>CELO3</b>	<b>CELO4</b>	<b>CELO5</b>	<b>CELO6</b>
<b>Teaching and learning</b>						
Lecturing	x	x				
Practice in project	x	x	x	x	x	x
Presentation	x	x	x	x	x	x
<b>Assessment</b>						
Rubric 1. Practice in project (30%)	x	x	x	x	x	x
Rubric 2. Presentation (20%)		x	x			
Rubric 3. Final exam (50%)	x					

### 5. Student tasks

- Attendance and attitude: students must attend all lectures in class and practice.
- Prepare materials before going to class (self-study): students must read or prepare materials related to the lesson in class following the guidance of lecturer.
- Assignment: All students attending this module must complete an individual essay assignment. Under the guidance of lecturers, students proceed to select essay topics, develop and write essay reports.
- Presentation: All students participating in this module must participate in individual assignment presentations and discussions of related issues.
- Practice in the project: All students participating in this module must work on projects in groups. Under the guidance of the lecturer, students proceed to write the outline, deploy and write the project implementation report.
- Final exam: All students taking this course must take the final exam.

### 6. Text books and references

\* *Text Books/Lecture Notes:*

Lecture on Construction and landscape creation from 1- 2021.

**\* Additional references:**

- Pham Thi Bich Phuong, 肖国增, 陈中义. 越南顺化省安轩古典私家园林造园艺术研究[J]. 华中建筑, 2019, 000(012):103-106.

- Pham Thi Bich Phuong, 陈中义, 肖国增. 越南顺化园林与地域环境的协同表达[J]. 绿色科技, 2019, 000(021):1-3.

- Pham Thi Bich Phuong và Chen Zhongyi, 2020. Landscape art of Tuy Ly Vuong palace, Thua Thien Hue, Vietnam. Journal of Science Can Tho University. 56(6C): 271-279.

- Yi Mingmin, Pham Thi Bich Phuong, Chen Zhongyi, Xiao Guozeng, 2020. Research on historical and memorial landscape establishment of Dajiaochang in Nanjing city. Shanxi Architecture. 46(7):32-34.

- Pham Thi Bich Phuong, 2021. Actual situation of exploiting landscape trees at some locations in Hanoi city. Proceedings of the scientific conference in 2021, Faculty of Agronomy, Vietnam Academy of Agriculture. 44-50.

**7. Course outline**

Week	Content	Course expected learning outcomes
1	<b>Chapter 1: Overview of the construction process of garden landscaping works</b>	
	<b>A/ Main contents: ( 2 hours)</b> <b>1. Theories: (2 hours)</b> 1.1. Activities before construction of landscape works 1.2. The order of construction of items in landscape works 1.3. Notes in the process of landscape construction <b>2. Practice: (0 hours)</b>	CELO1, 3, 4, 5, 6.
	<b>B/ Self-study contents: (6 hours)</b> Read and analyze parameters on design and construction drawings.	
2	<b>Chapter 2: Common materials in the garden</b>	
	<b>A/ Main contents: ( 2 hours)</b> <b>1. Theories: (2 hours)</b> 1.1. Classification of materials by nature 1.2. Classification of materials by origin 1.3. Some popular materials in the landscape garden <b>2. Practice: (0 hours)</b>	CELO1, 5.
	<b>B/ Self-study contents: (6 hours)</b> Learn the production process of some common materials in the garden.	

	<b>Chapter 3: Ground construction techniques and drainage systems in the garden landscape</b>	
3	<p><b>A/ Main contents:</b> ( 4,5 hours)  <b>1. Theories:</b> (2 hours)  1.1. Remove unwanted elements on the construction site  1.2. Leveling process in the landscape  1.3. Simple method of creating slopes and installing drainage systems  <b>2. Practice:</b> (2.5 hours)  - Project exercise 1: Choose a project topic and write an outline</p>	CELO1, 2,3,4,5.
	<p><b>B/ Self-study contents:</b> (13,5 hours)  - Learn and practice the method of estimating the total volume of ground leveling.</p>	
	<b>Chapter 4: Techniques for constructing paths in the garden landscape</b>	
4	<p><b>A/ Main contents:</b> ( 7 hours)  <b>1. Theories:</b> (2 hours)  1.1. Road surface design standards  1.2. Types of materials for road construction  1.3. Construction techniques for some basic types of walkways  1.4. Organize the construction several related items such as the ground floor, bridge, rest hut, ....  <b>2. Practice:</b> (5 hours)  - Project exercise 2: Surveying the project and proposing the construction plan  - Project exercise 3: Construct a landscape item and complete the as-built document.</p>	CELO1, 2,3,4,5,6.
	<p><b>B/ Self-study contents:</b> (21 hours)  - Learn the path types and decorative effects in the landscape.</p>	
	<b>Chapter 5: Construction techniques for the water element in the landscape</b>	
5	<p><b>A/ Main contents:</b> ( 5 hours)  <b>1. Theories:</b> (2 hours)  1.1. Classification of the water element in the landscape  1.2. Popular water element construction materials in landscaped gardens  1.3. Landscape construction techniques  <b>2. Present:</b> (3 hours)  Group project report 1-3</p>	CELO1, 2,3,4,5,6.
	<p><b>B/ Self-study contents:</b> (15 hours)  - Learn the style of designing water elements in landscapes such as ornamental lakes, swimming pools, etc.</p>	
6	<b>Chapter 6: Techniques for constructing green trees in the garden landscape</b>	

	<p><b>A/ Main contents: (4 hours)</b></p> <p><b>1. Theories: (2 hours)</b></p> <p>1.1. The role of trees</p> <p>1.2. The principle of combining green plants</p> <p>1.3. The process of constructing a green tree system in the landscape</p> <p><b>2. Present: (2 hours)</b></p> <p>Group project report 4-5</p>	CELO1, 2,3,4,5,6.
	<p><b>B/ Self-study contents: (12 hours)</b></p> <p>The application of green trees in garden landscape design is consistent with the principles of feng shui.</p>	
7	<b>Final exam</b>	CELO 1,2