Course RQ03012: APPLIED IT IN LANDSCAPE DESIGN

1. General information

- Term: 6
- Credits: **Total credits 2 (Lecture: 1,5 – Practice: 0,5)**
- **Self-study: 6** credits
- Credit hours for teaching and learning activities: 30 hrs
- Self-study: 90 hrs.
- Department conducting the course:
  - Department: Horticulture & Landscaping
  - Faculty: Agronomy
- Kind of the course:

Foundation □		Fundamental □		Specialization 1 □		Specialization 2 ☒	
Compulsory □	Elective □	Compulsory □	Elective □	Compulsory □	Elective □	Compulsory ☒	Elective □

- Prerequisite course(s): none

2. Course objectives and expected learning outcomes

**** Course objectives*:**

- Knowledge: Course aims to provide learners with basic knowledge about using graphic software: Auto Cad, Sketchup, Photoshop in expressing landscape ideas.
- Skills: Course trains learners to coordinate the above software, self-express the ground, landscape perspective by software.
- Attitude: Course provides for learners the proactive and professional attitude of a landscape designer.

**** Course expected learning outcomes***

Notation	**Course expected learning outcomes** After successfully completing this course, students are able to	**PLO performance criteria**
Knowledge		
CELO1	Applying knowledge of information technology in the landscape to express landscape design ideas to meet the requirements	3.1 (R)
CELO 2	Applying knowledge of information technology in the landscape to the completion of design drawings according to the set goals	3.2 (R)
Skills		
CELO 3	Accurately use some graphic software for landscape design.	5.6 (R)
Attitude		
CELO 4	Willing to learn when given the opportunity to learn, improve knowledge and capacity.	10.2 (M)

3. Course description

Brief description of the course: This course includes: Application of AutoCAD software; Applications of Sketchup software and Applications of Photoshop software in landscape design

4. Teaching and learning & assessment methods

CELOs	CELO1	CELO2	CELO3	CELO4
Teaching and learning				
Lecturing	x	x		
Teaching through practical work			x	x
Seminar	x	x		x
Assessment				
Rubric 1. Seminar (20%)	x	x		x
Rubric 2. Practical (20%)			x	x
Rubric 3. Mid-term exam (10%)	x			
Rubric 4. Final exam (50%)	x	x		

5. Student tasks

- Attendance: All students must attend fully and on time all theoretical and practical sessions. Actively participate in discussions, ask questions, answer questions.
- Preparation for the lecture: All students must prepare lessons before coming to class at the request of lecturer.
- Assignment: All students must attend fully, be on time and complete assignments as required by lecturer.
- Mid-term exam: All students must attend all required midterm exam
- Final exam: All students must attend the final exam.

6. Text books and references

**** Text Books/Lecture Notes:***

1. Nguyen Anh Duc (2020). Lecture on Apply IT in landscape design. Vietnam National University of Agriculture

**** Additional references:***

1. Hutchison, E. (2019). Drawing for landscape architecture: sketch to screen to site. Thames & Hudson.
2. Booth, N. K., & Hiss, J. E. (2018). Residential landscape architecture: design process for the private residence. Prentice Hall..
3. McVeigh, J. (2017). Encyclopedia of landscape design: planning, building, and planting your perfect outdoor space.

7. Course outline

Week	Content	Course expected learning outcomes
1-2	**Chapter 1: Application of AutoCAD software**	
	A/ Main contents: *(2 hours)* **Theories:** *(2 hours)* 1.1 Overview of AutoCAD 1.1.1 Setting, uniting, limiting and scaling drawings 1.1.2 Other setting commands, method of snapping points and entering point coordinates 1.2 Autocad 2D commands commonly used in landscape design 1.2.1 Drawing commands 1.2.2 Some quick drawing commands 1.2.3 Object editing commands 1.2.4 Block and insert block 1.2.5 Managing objects by layer, line and color 1.2.6 Material symbol 1.2.7 Layout and model workspaces 1.3. Export Autocad 2D drawings to images 1.4. Export files from Autocad 2D to Sketchup **Practice:** *(3 hours)* Lesson 1: Drawing the landscape plan by AutoCAD	CELO1, CELO2 CELO3, CELO4
	B/Self-study contents: *(6 hours)* Practice using autoCAD software	CELO1, CELO2, CELO4
3-4	**Chapter 2:** Application of Sketchup software	
	A/ Main contents: *(3 hours)* **Theories:** *(3 hours)* 2.1 User Interface 2.2. Basic drawing 2.2.1. Paint 2.2.2. Essential tools 2.2.3. Observation tool 2.2.4. Correction tool 2.3. Advanced drawing 2.3.1. interpolate 2.3.2. Direction lock 2.3.3. Coordinate system 2.3.4. Construction tools 2.3.5. Terrain Creation Tool 2.4. Draw systematically 2.4.1. Manage drawing layers	CELO1, CELO2

	2.4.2. Complex management 2.4.3. Manage outline 2.5. Light, material, display 2.5.1. The light 2.5.2. Material 2.5.3. Display **Seminar/discussion:** *(2 hours)* Students are divided into small groups of 5-6 students each. Each group designs a landscape work according to the template using graphic software. After the design time, the groups will present their results and discuss with the whole class. Teachers participate in instruction, discussion and assessment **Practice:** *(3 hours)* Lesson 2: Draw perspective with Sketchup	CELO1, CELO2, CELO4 CELO3, CELO4
	B/Self-study contents: *(9 hours)* Practice using Sketchup software	CELO1, CELO2, CELO4
5-6	**Chapter 3:** Application of Photoshop software	
	A/ Main contents: *(5 hours)* **Theories:** *(5 hours)* 3.1 Open image files from other software to export and create new files 3.1.1. Create a new file 3.1.2. Open an existing file. 3.1.3. Save current file 3.2 Methods of making selections 3.2.1. Make a selection 3.2.2. Save and load selection 3.3 Layers 3.3.1. Create new layer 3.3.2. Turn off and delete layers 3.3.3. Move and edit layers 3.3.4. Adjust object size 3.3.5. Duplicate layer 3.4. Process and some effects used in finishing perspective drawings 3.5. Effects aids for perspective drawings 3.5.1. Create a shadow for the object 3.5.2. Process the status image with the Stamp tool 3.5.3. Use the Crop tool (C) to crop the excess image **Practice:** *(3 hours)* Lesson 3: Edit photos with Photoshop	CELO1, CELO2 CELO3, CELO4
	B/Self-study contents: *(15 hours)* Practice using Photoshop software	CELO1, CELO2, CELO4