| Course Description Form  1. Course Name: |  |
|--|--|
| Forest planting                          |  |
| 2. Course Code:                          |  |
| FOPL301                                  |  |
| 3. Semester / Year:                      |  |
| Second Semester / 2024-2025              |  |
| 4. Description Preparation Date:         |  |
| 1 / 2 / 2025                             |  |
| 5. Available Attendance Forms:           |  |

5. Available Attendance Forms: Built-in

6. Number of Credit Hours (Total) / Number of Units (Total)

2 Theory + 3 practical / 3.5 units

7. Course administrator's name (mention all, if more than one name)

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## 8. Course Objectives

#### Theory:

The student should be able to determine the economic and environmental importance of forest and afforestation

- It aims to ensure the sustainability and continuity of forests to benefit from them economically and environmentally
- Familiarity with the most important, best and be methods of trees
- Introducing the student to some of the problems of planting seedlings according to different locations

And how to treat it

- Methods of reforestation of cut and burned forests

#### Practical:

The practical afforestation course aims to inform students and see the types of forest trees used in reforestation of arid areas and stabilization of sand dunes, how to make windbreaks, and the practical application of afforestation operations in open areas and reforestation of forest areas, and to train students on developmental and sustaining processes for the trees growing in nursery.

# 9. Teaching and Learning Strategies

| 9. Tea   | ching and Learning Strategies                      |
|----------|--|
| Strategy | -Interactive lecture, Brainstorming,               |
|          | - Dialogue and discussion,                         |
|          | - Assigning tasks and reporting                    |
|          | - Assigning group work to reveal leadership skills |

### 10. Course Structure

| Week | Hours    | Required Learning<br>Outcomes | Unit or subject name        | Learning method    | <b>Evaluation</b> method |
|------|----------|-------------------------------|-----------------------------|--------------------|--------------------------|
| 1    | 2Theory  | Theory:                       | Theory:                     | Theory:            | Exams,                   |
| 1    | 3 Pract. | a1: Learn about the           | Principles of afforestation | -Auditory methods, | Homework,                |
|      |          | principles and                | And some scientific terms   | -Style of          | Reports                  |
|      |          | foundations of                | practical:                  | writing on         |                          |
|      |          | plantation                    | Introducing forests and     | The blackboard.    |                          |
|      |          | practical:                    | their importance            | -Direct dialogue   |                          |

|   |                    | a6: Learn about the types forests and importance  |   | style<br>Practical :  |                                |
|---|--------------------|---|---|---|--------------------------------|
|   |                    |   |   | Assigning tasks and reports   |                                |
| 2 | 2Theory<br>3 Pract | Theory: a2: aware of the importance of afforestation in reducing urban pollution practical: a7: Learn about seed dispersal methods and seedling planting methods  | Theory: The role of afforestation in reducing environmental pollution Practical: Methods of afforestation, including seed dispersal and seedling planting                       | Theory: -Auditory methods, -Style of writing on The blackboardDirect dialogue style Practical: Assigning tasks and reports        | Exams,<br>Homework,<br>Reports |
| 3 | 2Theory<br>3 Pract | Theory: e1: Determines how afforestation works to alleviate poverty in developing countries practical: A8: Learn about the types of forest tree seeds and methods of treating them                            | Theory: The role of forests in alleviating poverty in developing countries  Practical: Identifying the types of seeds and methods of treating them before sowing                | Theory: -Auditory methods -Style of writing on The blackboardDirect dialogue style Practical: Assigning tasks and reports Theory: | Reports                        |
| 4 | 2Theory<br>3 Pract | Theory: a3: Learn about the necessary procedures before planting trees practical: b2: Students document the types of forest trees and calculate the distances between trees                                   | Theory: bout the Tree planting methods: procedures First, by scattering seeds  Practical: examining the types of trees and determining the determining the appropriate planting |   | Exams,<br>Homework,<br>Reports |
| 5 | 2Theory<br>3 Pract | Theory: a4: Learn about the treatments on seedlings before starting planting and the methods of planting practical: d1: Application in the nursery to the process of dispersing seeds in beds, bags, and pots | Theory: Methods of afforestation: Secondly, planting seedlings  Practical: scattering seeds in beds, pots, and bags   | Theory: -Auditory methods, -Style of writing on The blackboardDirect dialogue style Practical: Assigning tasks and reports        | Exams,<br>Homework,<br>Reports |
| 6 | 2Theory<br>3 Pract | Theory: c1: Explains the types of bare-rooted seedlings and methods of planting practical: a9: Identify the types of forest trees suitable for  | Theory: Methods of planting bare- rooted seedlings Practical: planting windbreaks and protectiv belts   | Theory: -Auditory methods -Style of writing on The blackboardDirect dialogue style  | Exams,<br>Homework,<br>Reports |

|    |                    | planting and planting in arid areas   |   | Practical :<br>Assigning tasks<br>and reports   |                                |
|----|--------------------|---|---|---|--------------------------------|
| 7  | 2Theory<br>3 Pract | Theory: b1: Organizes a scientific visit to natural forests in northern Iraq practical: a10: Identify forest trees suitable for planting windbreaks and protective belts        | Theory: A scientific visit to forest areas in Dohuk Governorate, Mata Arboretum and Zawita Forests practical: Applying some planting methods in natural forests | Theory: -Auditory methods, -Style of writing on The blackboardDirect dialogue style Practical: Assigning tasks and reports  | Exams,<br>Homework,<br>Reports |
| 8  | 2Theory<br>3 Pract | Theory: a5: Learn about windbreaks, their types, importance, and conditions for their application practical: c6: A practical application on planting windbreaks and green belts | Theory: Windbreaks and green belts Practical: planting windbreaks and protective belts  | Theory: -Auditory methods, -Style of writing on The blackboardDirect dialogue style Practical: Assigning tasks and reports  | Exams,<br>Homework,<br>Reports |
| 9  | 2Theory<br>3 Pract | Theory: c2: Explains the methods used to stabilize coastal sand dunes practical: a11: Identify the types of forest trees suitable for planting slopes and rugged areas          | Theory: Afforestation and stabilization of coastal sand dunes  practical: Afforestation of slopes and rugged areas  | Theory: -Auditory methods, -Style of writing on The blackboardDirect dialogue style Practical: -Assigning tasks and reports | Exams,<br>Homework,<br>Reports |
| 10 | 2Theory<br>3 Pract | Theory: e2: Justifies the importance of stabilizing sand dunes in arid and semi-arid areas practical: a12: Afforestation of arid and semi-arid areas                            | Theory: Afforestation of arid and semi-arid areas  practical: Afforestation of arid and semi-arid areas   | Theory: -Auditory methods, -Style of Writing on The blackboardDirect dialogue style Practical: Assigning tasks and reports  | Exams,<br>Homework,<br>Reports |
| 11 | 2Theory<br>3 Pract | Theory: c3: He proposes a scientific visit to the Nineveh Forest practical: c7: He proposes a scientific visit to the Nineveh Forest  | Theory: A scientific visit to the forests of Nineveh  Practical: stabilizing sand dunes   | Theory: -Auditory methods, -Style of writing on The blackboardDirect dialogue style Practical: Assigning tasks              | Exams,<br>Homework,<br>Reports |

|       |  |  |   |   |   | and reports   |                          |
|-------|--|--|---|---|---|---|--------------------------|
| 12    | 2Theory<br>3 Pract   | Theory: C4: Explains the tyof plots according purpose of creating them practical: A13: Learn about to stabilize sand of  | to the ng ways                            | Theory: Types of stands  practical: Practical applica planting seedlin nursery  |   | Theory: -Auditory metho -Style of writing on The blackboard -Direct dialogue style Practical: Assigning tasks and reports | 2                        |
| 13    | 2Theory<br>3 Pract   | Theory: e3: Justifies the importance of afforestation of sl to reduce erosion practical: c8: Practical application of plaseedlings in nursery  |   | Theory: Afforestation of (agricultural ter Practical: Practi application of pl seedlings on pul   | races)<br>cal<br>lanting                    | Theory: -Auditory methorStyle of writing on The blackboardDirect dialogue style Practical: Assigning tasks                | Reports<br>d.            |
| 14    | 2Theory<br>3 Pract   | Theory: e4: Determines the standards and foundations of afforestation with cities practical: c9: Practical application of plates seedlings on publication of plates.                         | nin                                       | Theory: Afforestation of roads, and centre Practical: Practical: practical application of proceedings on pure seedlings | cal islands<br>cal<br>lanting<br>blic roads | Theory: -Auditory methors -Style of writing on The blackboar -Direct dialoguestyle Practical: Assigning tasks and reports | Reports<br>d.<br>e       |
| 15    | 2Theory<br>3 Pract   | roads Theory: c5: Shows the most important types of trees and shrubs that are suitable for afforestation in Iraq practical: c10: Practical application of planting seedlings on public roads |   | Theory: The most important trees and shrubs used in landscaping in Iraq, their specifications and importance practical: Practical application: planting seedlings on public roads   |   | Theory: -Auditory methors -Style of writing on The blackboar -Direct dialoguestyle Practical: Assigning tasks and reports | e                        |
| 11. ( | Course Evalu   |  |   |   |   |   | 1.41                     |
|       | Evaluation Methods Final report theory + pract. Report Short exam (1)  Half exam ( theory + pract.) Short exam (2) |  |   | tion Date   | Degree                                      |   | elative weight %<br>% 13 |
|       |  |  | Theory 15 weeks Pract. 1-15 week Week (3) |   | 7 Theory + 6 pract. 4 Theory + 2 pract.     |   | 70 13                    |
|       |  |  |   |   |   |   | % 6                      |
|       |  |  | Week (                                    | Week (9) 10 T   |   | -y +  | % 15                     |
|       |  |  | Week (12) 4 Theor                         |   | 4 Theory<br>2 pract.                        | 7 +   | % 6                      |

|                                 | Final exam (practical)      | Exam pract.                  | 20                                   |                | % 20                 |  |
|---------------------------------|-----------------------------|------------------------------|--------------------------------------|----------------|----------------------|--|
|                                 | Final exam (theory)         | Exam theory                  | 40                                   | # 5            | % 40                 |  |
|                                 |                             |                              | 100                                  |                | % 100                |  |
| 12. Le                          | earning and Teaching Reso   | urces                        |                                      |                |                      |  |
| Require                         | ed textbooks (curricular bo | oks, if any)                 |                                      |                |                      |  |
| Main references (sources)       |                             | The Planting Design Handbook |                                      |                |                      |  |
|                                 |                             |                              | Propagating and                      | planting trees |                      |  |
| Recom                           | mended books and refer      | ences (scientific            | Many articles                        | and research   | published in publish |  |
| journals, reports)              |                             |                              | houses such as Springer + Elsevier + |                |                      |  |
|                                 |                             |                              | SPRINGER NATU                        | IRE)           |                      |  |
| Electronic References, Websites |                             |                              | Various sites on the Internet        |                |                      |  |

Teacher of Theory : Dr. Shaymaa Dhayaa Ali

Teacher of Practical: Dr. Shaymaa Dhayaa Ali

Chairman of the Scientific Committee : Prof.Dr. Sumod Husain Ali

Head of the Dept. of Forestry Sciences: Prof.Dr. Sumod Husain Ali

فسم علوم الغاياد