## **Description course/ Principles of Forestry**

| 1. Course name:   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Forest Principles   |  |  |  |  |  |  |
| 2. Course code:   |  |  |  |  |  |  |
| PRFO139   |  |  |  |  |  |  |
| 3. Semester/Year:   |  |  |  |  |  |  |
| First Semester/First Stage/ 2023-2024   |  |  |  |  |  |  |
| 4. The date this description was prepared :   |  |  |  |  |  |  |
| 1/09/2023   |  |  |  |  |  |  |
| 5. Available attendance form  |  |  |  |  |  |  |
| In-Person   |  |  |  |  |  |  |
| 6. Number of study hours (total)/number of units (total)  |  |  |  |  |  |  |
| 2 hours theoretical/ 3 hours practical (5 hours)/3.5 units  |  |  |  |  |  |  |
| 7. Name of the course administrator (if more than one name is mentioned) :  |  |  |  |  |  |  |
| Dr. Samer Amir Hanna / Theoretical  |  |  |  |  |  |  |
| MSc . Hanan Ghanem Saadallah/ Practical   |  |  |  |  |  |  |
| 8. Course objectives  |  |  |  |  |  |  |
| <ul> <li>The learner should be able to identify forest tree types and distinguish them from horticultural<br/>trees.</li> </ul>                 |  |  |  |  |  |  |
| • The learner must be familiar with the development service operations necessary to manage trees in a nursery, forest or forest .               |  |  |  |  |  |  |
| • The learner should be familiar with the weather and climate affecting the spread and distribution   |  |  |  |  |  |  |
| of forest trees   |  |  |  |  |  |  |
| <ul> <li>Production and multiplication of types of seedlings, which can cover the labor market and<br/>according to demand and need.</li> </ul> |  |  |  |  |  |  |
| <ul> <li>Distinguish between the types of trees suitable for afforestation in the Iraqi environment and the</li> </ul>                          |  |  |  |  |  |  |
| city of Mosul in particular .   |  |  |  |  |  |  |
| • The learner's awareness of the taxonomic ranks of the local tree families in the country.   |  |  |  |  |  |  |
| <ul> <li>Determine the appropriate type of trees that can be used to afforest the sides of roads and medi<br/>islands</li> </ul>                |  |  |  |  |  |  |
| 9. TEACHING AND LEARNING STRATEGIES   |  |  |  |  |  |  |
|   |  |  |  |  |  |  |

- Interactive lecture

- Presentations of models of the body of insects

- Assigning specific tasks and preparing reports on

- Brainstorming them
- Dialogue and Discussion
- Field Training

- Self-learning
- Practical Exercises

| 10. 10. Course Structure |                                    |  |   |  |  |  |
|--------------------------|------------------------------------|--|---|--|--|--|
| Week                     | Hours                              | Learning outcomes required for the<br>program*   | Unit or Topic Name                              | Learning method  | Valuation<br>Method  |  |
| 1                        | theore<br>tical<br>descri<br>ptive | A1 : Identify the most important terms in the field of specialization                  | Definitions and<br>terminology about<br>forests | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, self-<br>learning  | Quiz1<br>Final Quiz  |  |
|                          | 3<br>Practi<br>cal                 | A11: Recognize important terms in the Forest<br>Principles                             | Preamble to the<br>Forest Principles            | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, field<br>training, self-learning                             | "Little<br>Things."<br>Little taste.<br>Yeah, let's<br>run "Little<br>Things." |  |
| 2                        | 2<br>Theor<br>etical               | A2: Recognize the importance of forests economically, environmentally and touristily   | Economic<br>importance of<br>forests            | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, self-<br>learning  | Quarterly<br>Quiz 1,<br>Final Quiz   |  |
|                          | 3<br>Practi<br>cal                 | A14: Learn about the sciences related to the principles of forests and their offshoots | Science from<br>Forestry                        | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, field<br>training, practical<br>exercises, self-<br>learning | Direct<br>application<br>using<br>available<br>tools                           |  |
| 3                        | 2<br>Theor<br>etical               | A6: Compares pure and mixed forests  | Forest<br>Subdivisions                          | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, self-<br>learning  | Quarterly<br>Quiz 1,<br>Final Quiz   |  |
|                          | 3<br>Practi<br>cal                 | A12 : Mention the benefits of diverse forests  | Benefits of Forests                             | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, field<br>training, self-learning                             | View Field   |  |
| 4                        | 2<br>Theor<br>etical               | A4: Sets the list of forest distribution in the countries of the world                 | State of the World's<br>Forests                 | Interactive lecture,<br>brainstorming,<br>dialogue and   | Quarterly<br>Quiz 1,   |  |

|   |                                    |  |   | discussion, self-<br>learning  | Final Quiz,                             |
|---|------------------------------------|--|---|--|---|
|   | 3<br>Practi<br>cal                 | A16 : Lists the benefits of tourist forests  | Benefits of Forests                                   | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, field<br>training, practical<br>exercises, self-<br>learning               | Practical<br>Quiz 2,<br>Live<br>Drawing |
|   | 2<br>Theor<br>etical               | A3: Identify forest divisions in terms of where<br>they are spread   | Natural Forests in<br>Iraq                            | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, self-<br>learning  | Quarterly<br>Quiz 1,<br>Final Quiz      |
| 5 | 3<br>Practi<br>cal                 | B3 : Plans how to establish a nursery  | Al Mashatel   | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, field<br>training, practical<br>exercises, self-<br>learning               | Views from<br>live<br>models            |
|   | 2<br>Theor<br>etical               | A9: Determines the best type of forest based on certain constants  | Pure and mixed forests                                | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, self-<br>learning  | Quiz, Final<br>Quiz                     |
| 6 | 3<br>Practi<br>cal                 | A13: Compare types of nurseries  | Al Mashatel   | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, field<br>training, practical<br>exercises, self-<br>learning               | Direct<br>drawing<br>and<br>homework    |
|   | 2<br>Theor<br>etical               | A5: Identify the most important types of forest tree propagation   | Methods of Repro                                      | Interactive lecture,   | Quarterly<br>Quiz 2,<br>Final Quiz      |
| 7 | 3<br>Practi<br>cal                 | B7 : Design a nursery that contains fences and transportation methods  | Nursery Planning                                      | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, field<br>training, practical<br>exercises, field<br>project, self-learning | Figure<br>Presentati<br>on              |
| 8 | theore<br>tical<br>descri<br>ptive | B1: Connects the types of nurseries and the types suitable for cultivation in them and their environmental and economic importance | Forest nurseries,<br>their types, their<br>importance | Interactive lecture,<br>brainstorming,<br>dialogue and<br>discussion, self-<br>learning  | Quarterly<br>Quiz 2,<br>Final Quiz      |
|   | 3<br>Practi                        | A18 : Determines the best way to maintain and care for nurseries   | Maintenance<br>and care in                            | Interactive lecture,<br>brainstorming,   | Direct                                  |

|    | cal                  |  | forests              | dialogue and                     | drawing      |
|----|----------------------|--|----------------------|----------------------------------|--------------|
|    | cui                  |  | 1010313              | discussion, field                | drawing      |
|    |                      |  |                      | training, practical              | and          |
|    |                      |  |                      | exercises, self-                 | homework     |
|    |                      |  |                      | learning                         |              |
|    |                      | A10 : Determines the                               |                      | Interactive lecture,             | Quarterly    |
|    | 2                    | best special transactions                          | Transactions         | brainstorming,                   |              |
|    | Theor                | before planting seeds                              | for seeds before     | dialogue and                     | Quiz 2,      |
|    | etical               |  | planting             | discussion, self-                | Final Quiz   |
|    |                      |  |                      | learning                         |              |
| 9  |                      | A17 :Identify mitigation,                          |                      | Interactive lecture,             | Direct       |
| -  |                      | when it takes place and                            |                      | brainstorming,                   | drawing      |
|    | 3                    | its forms  | Maintenance and      | dialogue and                     | urawing      |
|    | Practi               |  | care in forests      | discussion, field                | and          |
|    | cal                  |  |                      | training, practical              | homework     |
|    |                      |  |                      | exercises, self-                 |              |
|    |                      | C1: Suggests suitable                              |                      | learning<br>Interactive lecture, | <b>.</b>     |
|    | 2                    | types of afforestation in                          | Afforestation        | brainstorming,                   | Quarterly    |
|    | Theor                | different places                                   | , its types and      | dialogue and                     | Quiz 2       |
|    | etical               |  | times                | discussion, self-                |              |
|    | etteur               |  | unies                | learning                         |              |
| 10 |                      | A15: Choose one of the                             |                      | Interactive lecture,             | Live         |
| 10 |                      | low-mitigation types                               |                      | brainstorming,                   | LIVE         |
|    | 3                    |  |                      | dialogue and                     | Drawing      |
|    | Practi               |  | Maintenance and      | discussion, field                | Homework     |
|    | cal                  |  | care in forests      | training, practical              |              |
|    |                      |  |                      | exercises, self-                 |              |
|    |                      |  |                      | learning                         |              |
|    |                      | D1: Conclude the most important toxic gases        |                      | Interactive lecture,             | A final test |
|    | 2<br>Theor<br>etical | and their harmful effects on forests by field      | Effect of toxic      | brainstorming,                   |              |
|    |                      | examination  | gases on forests     | dialogue and                     |              |
|    |                      |  | 8                    | discussion, self-                |              |
|    |                      |  |                      | learning                         |              |
| 11 |                      | B6: Differentiates between high and optional       |                      | Interactive lecture,             | -            |
|    | 3<br>Practi          | dilution   |                      | brainstorming,<br>dialogue and   | Homework     |
|    |                      |  | Maintenance and      | dialogue and discussion, field   |              |
|    | cal                  |  | care in forests      | training, practical              | •            |
|    | Cal                  |  |                      | exercises, self-                 |              |
|    |                      |  |                      | learning                         |              |
| 12 |                      | D2: Suggests the best solutions for the effects of |                      | Interactive lecture,             | A final test |
|    | 2                    | wind and storms on trees                           | Effects of wind      | brainstorming,                   |              |
|    | Theor                |  | and storms on        | dialogue and                     |              |
|    | etical               |  | trees                | discussion, self-                |              |
|    |                      |  |                      | learning                         |              |
|    |                      | B5: Applies the mitigation process                 |                      | Interactive lecture,             | Direct       |
|    |                      |  |                      | brainstorming,                   |              |
|    | 3                    |  |                      | dialogue and                     | drawing      |
|    | Practi               |  | Maintenance and care | discussion, field                | and          |
|    | cal                  |  |                      | training, practical              | homowork     |
|    |                      |  |                      | exercises, self-                 | homework     |
|    |                      |  |                      | learning                         |              |

| 13  | 2<br>Theor<br>etical<br>3<br>Practi | Theor<br>etical B4 : Distinguish between sustainability<br>operations in forests and their times<br>3<br>Practi           |                       | Freezing Effec<br>Maintenance ar      |       |  | and<br>self-<br>lecture<br>,<br>and<br>field      | Homework           |
|---|-------------------------------------|---|-----------------------|---------------------------------------|-------|--|---|--------------------|
|   | cal<br>2<br>Theor<br>etical         | A7:Distinguish between biological factors affecting   |                       | bio factors                           |       | training,<br>exercises,<br>learning<br>Interactive<br>brainstorming<br>dialogue<br>discussion,<br>learning | practica<br>self-<br>lecture<br>,<br>and<br>self- | Quiz, Final        |
| 14  | 3<br>Practi<br>cal                  | E1: Participates in a field<br>permanent, temporary and<br>the maintenance operations                                     | central nurseries and | Field View -<br>Visits                | Field | Interactive<br>brainstorming<br>dialogue<br>discussion,<br>training,<br>exercises,<br>learning             | lecture<br>,<br>fielc<br>practica<br>self         | Little taste.      |
|   | 2<br>Theor<br>etical                | B2: Uses the best methods and equipment to make some forest measurements  |                       | Measurements<br>for some for<br>trees | rest  | Interactive<br>brainstorming<br>dialogue<br>discussion,<br>learning  | lecture<br>,<br>and<br>self                       | Quiz               |
| 15  | 3<br>Practi<br>cal                  | E2: Participates in a field visit to identify<br>permanent, temporary and central nurseries and<br>maintenance operations |                       | Field View - Field<br>Visits          |       | Interactive<br>brainstorming<br>dialogue<br>discussion,<br>training,<br>exercises,<br>project, self-le     | and<br>field<br>practica<br>field                 | Little taste.      |
| 11.   | Course Evaluation                   |   |                       |                                       |       |  |   |                    |
| This<br>servic<br>e<br>allows<br>custo<br>mers<br>to<br>issue<br>a<br>permi<br>t<br>1 |                                     |   | Calendar Appointment  | (Week)                                | Degre | e  | v   | elative<br>Veight% |

| 2       | Weather Report - %1 - %2   | Week 5  | 2.5                 | 2.5  |  |
|---------|--|---|---------------------|------|--|
| 3       | Quiz (1)   | Week 6  | 2                   | 2    |  |
| 4       | Quiz 2 (Islamic Translation)   | Week 4  | 2                   | 2    |  |
| 5       | Quiz (3)   | Week 5  | 1                   | 1    |  |
| 6       | - A midterm?   | Week 6  | 7.5                 | 7.5  |  |
| 7       | - A midterm?   | Week 11   | 7.5                 | 7.5  |  |
| 8       | Final theoretical test   | senior year                                     | 40                  | 40   |  |
| 9       | Practical Field Drawing  | Week 5  | 5                   | 5    |  |
| 10      | Laboratory assessment  | Week 3  | 2                   | 2    |  |
| 11      | Practical Quiz (1) Quiz  | Week 1  | 1                   | 1    |  |
| 12      | Practical Quiz (2) Quiz  | Week 4  | 0.5                 | 0.5  |  |
| 13      | Practical Quiz (3) Quiz  | Week 4  | 1                   | 1    |  |
| 14      | Direct Drawings and Homework   | Weeks 6, 8,9,10,11,12 and13                     | 5.5                 | 5.5  |  |
| 15      | Final Practical Test   | senior year                                     | 20                  | 20   |  |
|         | Total  | 100   | 100%                | 100% |  |
| 12.     | Learning and Teaching Res  | ources  |                     |      |  |
| Requir  | Required textbooks (methodology if any Forestry and Afforestation (1990). Abdullah, Yawaz Shafiq and Adel Ibrahim Al-Kinani<br>. Dar Ibn Al-Athir for Printing and Publishing,224Ministry of Higher Education and Scientific Research. |   |                     |      |  |
| Key Re  | eferences ( Sources)   | - None  |                     |      |  |
| Recom   | mended supporting books and  | None  |                     |      |  |
| referer | nces (scientific journals, reports   |   |                     |      |  |
| )       |  |   |                     |      |  |
| E-Refe  | erences, Websites  | https://arab-ency.com.sy/ency/details/7779/13-1 |                     |      |  |
|         |  |   | g/3/cb9363ar/cb9363 |      |  |

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