



**Salahaddin University**

**College of Agricultural Engineering Sciences**

**Forestry Department**

**Subject: Forest Ecology / Practical**

**Course Book – 2<sup>nd</sup> year students**

**Lecturer's name: Assist L., Shaymaa H. Mahmood**

**Academic Year: Spring Semester 2022-2023**

## **Practical part**

**Monday / 10.30 am - 1.30 am G (A) (Lab 5)**

**1.30 am - 4.30 pm G (B) (Lab 5)**



## Ministry of Higher Education and Scientific research

### 11. Student's obligation

Students will be asked to prepare research papers on selective topics. There will be classroom discussions and the lecture will give enough background to evaluate problems sets, and different issues discussed throughout the course. Students are required to conduct two exams in Fall semester in Forestry Ecology practical part.

### 12. Forms of teaching

Direct method following for teaching with student. All lectures will be explained by using PPT. software with connecting to projector. White board will be used for more explanation. A copy of hand out will give to the students to write their notes.

### 13. Assessment scheme

They also require bringing a report in this semester. All students should be presented in the lab. **Quiz** will be conducted every lectures with giving (5) minutes to the students. The mean of **two exams** will be out of (20) marks and (15) marks for **student activities** for practical part with general total (35) marks.

1-	student activities	15
2-	Test	20
3-	Total	35

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**Total** **35**

### 14. Course Reading List and References:

- Thomas, P., & Packham, J. (2007). Ecology of woodlands and forests: description, dynamics and diversity. Cambridge University Press.
- Hytteborn, H., & Verwijst, T. (2011). The importance of gaps and dwarf trees in the regeneration of Swedish spruce forests: the origin and content of Sernander's (1936) gap dynamics theory. Scandinavian Journal of Forest Research, 26(S10), 3-16.
- Fuentes, M., Niklasson, M., Drobyshev, I., & Karlsson, M. (2010). Tree mortality in a semi-natural beech forest in SW Sweden. Ecological Bulletins, 53, 117-129.

### 15. Teachers name for this course:

**lecturer. Dr. Zana A. Ahmed Lak / Theory part**

**Asst. lecturer. Shaymaa H. Mahmood / Practical part**

### 16. Course program

## Ministry of Higher Education and Scientific research

Week: 1	Meteorology
Week: 2	Light
Week: 3	Temperature
Week: 4	Moisture
Week: 5	<i>First exam</i>
Week: 6	Visit Khanzad plantation
Week: 7	Visit Sami Abdul-Rahman park
Week: 8	Wind
Week: 9	Forest Fire
Week: 10	Forest Insects
Week: 11	Insects and Environment
Week: 12	<i>Second exam</i>

### 17. Practical Topics

- 1- First scientific trip to Sami Abdul-Rahman park.
- 2- Second scientific trip to natural forest in Safeen mountain.

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### 18. Examinations:

#### Type of examination Questions:

1-Define the following terms. (Wind – Meteorology – Climate - Forest fire )

**Forest fire:** is a fire that spread freedom and burning weeds, bushes, shrubs and terrestrial algae.

#### 2- Multiple choices

This medium consists of layer of solid rock of the earth. (Pedosphere, Atmosphere, Lithosphere)

**Lithosphere**

#### 3- Correct the underlined parts if they are falls:

Plants utilize (0.2 - 0.2%) of moisture that is taken from ground in the construction processes.

**False (0.1-0.3 %)**

**4- Answer the True or False to the following.**

- Plants utilize of visible light in photosynthesis process especially blue and green color.
- If photosynthesis ratio is equal to respiration ratio, plant growth will occur.

**5- Fill the blanks with suitable words: -**

Maximum temperature is the temperature that stop physiology phenomenon which is between .....

C°

40 - 50 C°

**6- Answer the following**

- 1-Why consider the maximum moisture is danger for trees and plants ?
- 2- Differences between calm wind and storm wind.
- 3- Enumerate the most important causes to forest fire. (**Only 5**)
- 7- **Write Scientific name for each of the following. (Only tow example)**

-Tolerant trees to shade.

*Tilia spp*

*Thuja occidentalis*

**19. Extra notes:**

Here the lecturer shall write any note or comment that is not covered in this template and he/she wishes to enrich the course book with his/her valuable remarks.

**20. Peer review:**

This course book has to be reviewed and signed by a peer. The peer approves the contents of your course book by writing few sentences in this section.

*(A peer is person who has enough knowledge about the subject you are teaching; he/she has to be a professor, assistant professor, a lecturer or an expert in the field of your subject).*