ADIKAVI NANNAYA UNIVERTSITY:: RAJAMAHENDRAVARAM B. Sc. Forestry Syllabus (w.e.f: 2020-21 A.Y.) B. Sc Semester – I Credits: 04

Course: 1 Introduction to Forestry Hrs/Wk:04

Learning Outcomes: On successful completion of this course, the students will be able to:

Understand the history and importance of forests and forestry in relation to products and climate.

- ¬ Identify, classify and explain the features of forests in India.
- ¬ Discuss the soils in forests and the process of soil formation.
- Demonstrate skills on determination of physico-chemical characteristics of soil.
- ¬ Explain the biotic and abiotic components of the forest ecosystem.
- Acquire critical knowledge on methods to estimate primary productivity.

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Course: 1(L) Practical-1 Hrs/Wk:02

Practical syllabus of Forestry Core Course – 1/ Semester – I Introduction to Forestry

(Total hours of teaching – 30 @ 02 Hrs./Week)

Learning Outcomes: On successful completion of this practical course, student shall be able to:

- \neg Identify and classify the resources and products of forests.
- Demonstrate skills on various methods to estimate physico-chemical methods of soils.
- \neg Identify and classify the biotic and abiotic components in the forest.
- ¬ Estimate primary productivity

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B. Sc Semester - II Credits: 04

Course: 2 Silviculture, Wood Anatomy and Dendrology Hrs/Wk:04 Learning Outcomes: On successful completion of this course, the students will be able to:

- ¬ Understand the concept of silviculture and factors influencing it.
 - ¬ Explain various cultural operations in developing a forest.
- Acquire a critical knowledge on formation of wood and its characteristic features.
 - ¬ Discuss different aspects related to dendrology − plant products.
 - ¬ Demonstrate skills on determining the quality of wood.

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Course: 2(L) Practical - 2 Hrs/Wk:02

Learning Outcomes: On successful completion of this practical course, student shall be able to:

- 1. Identify and classify different forest trees and shrubs of their locality.
 - 2. Demonstrate skills on planting methods.
- 3. Acquire skills on analyzing micro- and macroscopic features wood to identify specific

timber yielding plant species.

4. Measure the timber and calculate the yield.

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B. Sc. Forestry Syllabus (w.e.f: 2020-21 A.Y.)

B. Sc Semester - III Credits: 04

Course: 3 Forest Protection Hrs/Wk:04

Learning Outcomes: On successful completion of this course, the students will be able to:

- ¬ Understand the causes of forest fires and their control methods.
 - ¬ Discuss the human activities causing damage to forests.
 - ¬ Explain the weed and disease management in forestry.
 - ¬ Identify and classify the diseases of forest plants.
 - ¬ Explain the pests in forests and their control methods.
 - ¬ Acquire critical knowledge on forest protection.

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Course: 3(L) Practical-3 Hrs/Wk:02

Practical syllabus of Forestry Core Course – 3/ Semester – III Forest Protection(Total hours of teaching – 30 @ 02 Hrs./Week)

Learning Outcomes: On successful completion of this practical course, student shall be able to:

- ¬ Handle the fire-fighting machinery.
- ¬ Identify the organisms responsible for spoilage of forest plants.
- ¬ Identify and classify the plant pathogens and pests in forests.
 - ¬ Isolate the soil fauna from forests.

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B. Sc Semester - IV Credits: 04

Course: 4 Wild life Biology Hrs/Wk:04

Learning Outcomes: On successful completion of this course, the students will be able to:

- ¬ Understand the significance and value of wildlife.
- ¬ Discuss the threats to wildlife and management.
- ¬ Acquire a critical knowledge on methods used in wildlife census.
 - ¬ Discuss in-situ and ex-situ methods of wildlife conservation.
 - ¬ Acquire skills on captive breeding techniques.

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B. Sc Semester – IV Credits: 01 Course: 4(L) Practical - 4 Hrs/Wk:02

Learning Outcomes: On successful completion of this practical course, student shall be able to:

- 1. Collect data on wild animal population in a forest.
- 2. Demonstrate skills on identifying the animal based on pug-mark.
- 3. Acquire knowledge on diseases of wild animals and their treatment.
 - 4. Track the movements of wild animals

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B. Sc. Forestry Syllabus (w.e.f: 2020-21 A.Y.)

B. Sc Semester – IV Credits: 04

Course: 5 Forest Ecology and Biodiversity Conservation Hrs/Wk:04 Learning Outcomes: On successful completion of this course, the students will be able to:

- ¬ Understand the significance and value of wildlife.
- ¬ Discuss the threats to wildlife and management.
- ¬ Acquire a critical knowledge on methods used in wildlife census.
 - ¬ Discuss in-situ and ex-situ methods of wildlife conservation.
 - ¬ Acquire skills on captive breeding techniques.

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B. Sc Semester - IV Credits: 01

Course: 5(L) Practical - 5 Hrs/Wk:02

Learning Outcomes: On successful completion of this practical course, student shall be able to:

- 1. Perform skills on basic ecological methods to study a forest community.
 - 2. Demonstrate skills determining biodiversity indices.
 - 3. Acquire knowledge on biomass and litter in a forest area.
 - 4. Decide the number and size of quadrat to study an area.