**COURSE OUTLINE**

**Course Name: WL-703 Principles of Wildlife Management 3(3-0)**

**Course Instructor: Dr. Sangam Khalil**

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**Course Objective:-**

This course has been designed to make students understand the concepts of principles of wildlife management; such history and basic concepts in management of wildlife resources. The course will help the students to understand the requirements of Management of Wildlife resources.

**THEORY**

History and basic concepts in management of wildlife resources i.e. Ecology, Population Dynamics, Biology, Conservation. Wildlife Ecology (Habitat factors & analysis, Ecological Succession and Wildlife, Weather, Climate and Wildlife). Population Dynamics (population analysis and manipulation, carrying capacity, perennial patterns of abundance). Wildlife Biology (wildlife and soils, food, nutrition and water requirements, cover requirements, movements, reproduction, behavior and physiology, mortality). Wildlife Conservation (resource conservation and quality of life, values). Wildlife Management (data bases requirements, applications of ecological principles, art of wildlife management, administration, public awareness). Wildlife Damage Management (brief introduction of pest species and their impact).

**Course Outcome:-**

After completing the course the students should be able to develop vision about management of wildlife resources by understanding: the concept of principles related to the Wildlife Management, Wildlife biology, Wildlife ecology, and Wildlife conservation.

**Lecture wise Teaching Schedule**

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| --- | --- |
| **Lecture #** | **Lecture Topic** |
| **1** | **Introduction Of course** |
| **2** | History and basic concepts in management of wildlife resources. |
| **3** | Ecology, Population Dynamics, Biology, Conservation. |
| **4** | Wildlife Ecology (Habitat factors & analysis). |
| **5** | Ecological Succession and Wildlife, Weather, Climate and Wildlife. |
| **6** | Population Dynamics. |
| **7** | Resource conservation in Wildlife. |
| **8** | Wildlife Biology. |
| **9** | Values of Wildlife Conservation. |
| **10** | Wildlife Damage Management. |
| **11** | Brief introduction of pest species. |
| **12** | Impact of pest species |
| **13** | Wildlife movements. |
| **14** | Wildlife reproduction. |
| **15** | Wildlife mortality. |
| **16** | Wildlife Conservation. |
|  | Assignments |
|  | Exam |

**Books Recommended:**

1. Bailey, J.A. 1984. Principals of Wildlife Management. John Wiley London.
2. Gilbert, F. F. and D. G. Dodds. 1987. The Philosophy and Practice of Wildlife Management. Robert E. Kreiger, Publishing Company, Malabar, Florida.
3. Giles, Jr. R. H. 1978. Wildlife Management. W. H. Freeman and Company, San Fransisco.
4. Peine, John D. 1999. Ecosystem Management for Sustainability: Principles and Practices. CRC Press.
5. Scott et al. 1995. Conservation of Biological Diversity; Perspectives and the Future for Wildlife Profession. Wildlife Society Bulletin 23(4): 645-657.
6. Tiwaei, P.C. and Bhagwati, J. 1997. Wildlife in the Himalayan Foothills: Conservation and Management. 376 pp.

**Department of Forestry, Range & Wildlife Management**

**Course Information**

**Course Name:** **FRW-702 Commericial Forestry in Irrigated Plains 3(2-1)**

**Course Instructor: Dr. Sangam Khalil**

**Course Objective:-**

This course has been designed to make students understand the concepts of role of forestry; such as forestry as a business; cultural operations in maximizing yields and profits; understanding of Irrigated forestry; Industrial forestry etc. The course will help the students to understand the Management of forest resources.

**Course Outcome:-**

After completing the course the students should be able to develop vision about commercial forestry by understanding: the concept of principles related to the forestry, silviculture systems, different types of Intermediate and by-product incomes from forestry.

**THEORY**

Principles of Forestry. Forestry as a business. Role of forest establishment, post planting care and cultural operations in maximizing yields and profits. Species selection in commercial forestry. Forest products measurement and evaluation; Exploring different types of Intermediate and by-product incomes and methods for their maximization. Choice of appropriate silvicultural and management systems. Harvesting, preliminary processing, grading and transport of forest produce. Irrigated forestry. Industrial forestry.

**PRACTICALS**

Practice of various forestry operations. Estimating the effects of timing and intensity of forestry operations on yield and profitability. Visits to commercial forests. Collection of relevant data about case study of a commercial forest and its analysis.

**Lecture wise Teaching Schedule**

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| --- | --- | --- |
| **Week #** | **Lecture #** | **Lecture Topic** |
| **1** | **1** | **Introduction of course** |
|  | **2** | Principles of Forestry. |
|  | **3** | **Practical** |
| **2** | **4** | Forestry as a business. |
|  | **5** | Role of forest establishment. |
|  | **6** | **Practical** |
| **3** | **7** | Post planting care. |
|  | **8** | Cultural operations in maximizing yields and profits. |
|  | **9** | **Practical** |
| **4** | **10** | Species selection in commercial forestry. |
|  | **11** | Forest products measurement and evaluation. |
|  | **12** | **Practical** |
| **5** | **13** | Exploring different types of Intermediate by-product incomes. |
|  | **14** | Methods for their maximization. |
|  | **15** | **Practical** |
| **6** | **16** | Harvesting. |
|  | **17** | Preliminary processing. |
|  | **18** | **Practical** |
| **7** | **19** | Choice of appropriate silvicultural. |
|  | **20** | Management systems. |
|  | **21** | **Practical** |
| **8 & 9** |  | **Mid Term Exam** |
| **10** | **22** | Irrigated forestry. |
|  | **23** | **Continue……** |
|  | **24** | **Practical** |
| **11** | **25** | Grading of forest produce. |
|  | **26** | **Continue……** |
|  | **27** | **Practical** |
| **12** | **28** | Transport of forest produce. |
|  | **29** | **Continue……** |
|  | **30** | **Practical** |
| **13** | **31** | Industrial forestry. |
|  | **32** | **Continue……** |
|  | **33** | **Continue……** |
| **14** | **34** | **Practical** |
|  | **35** | **Continue……** |
|  | **36** | **Practical** |
| **15** | **37** | **Oral Presentations** |
|  | **38** | **Oral Presentations** |
|  | **39** | **Oral Presentations** |
| **16** | **40** | **Oral Presentations** |
|  | **41** | **Oral Presentations** |
|  | **42** | **Oral Presentations** |
| **17** | **43** | **Wrap Up of Course** |
|  | **44** | **Continue…………….. Wrap Up of Course** |
|  | **45** | **Continue…………….. Wrap Up of Course** |
| **18** |  | **Final Exam** |

**SUGGESTED READINGS**

1. Champion, H.G., 1967. Manual of Silviculture, Pakistan Forest Institute, Peshawar

2. Gary, L. R., J. M. Edington, I. I. Holland and G. C. Fortenberry. 2005. Forest and Forestry. Book Co. Lucknow, India.

3. Panwar, P. and S. D. Bhardwaj. 2005. Hand Book of Practical Forestry. Agribios Publishing. Jodhpur, India

4. Panwar, P. and S. D. Bhardwaj. 2006. Practical Manual of Plantation. Scientific Publishers, Jodhpur (India).

5. Tewari, V. P. and Srivasta. 2006. Multipurpose Trees in the Tropics; Scientific Publishers, Jodhpur (India).