

SIR SYED COLLEGE, TALIPARAMBA

(Affiliated to Kannur University) Re-accredited by NAAC with A Grade

Kannur, Kerala, India-PIN 670142

**ACFOR1 BASIC COURSE IN ORNITHOLOGY**



**DEPARTMENT OF FORESTRY**

**2021-22**

Course Co-Ordinator: Mrs. Sneha C.

Assistant Professor

Department of Forestry

**Board of Studies Members**

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| --- | --- |
| **Chairperson** | **Members** |
| Mrs. Sneha C. Assistant Professor Department of ForestrySir Syed CollegeTaliparamba | 1. Mr. Aneesh K.S.

Assistant ProfessorDepartment of Natural Resource ManagementCollege of ForestryKerala Agricultural University |
| 1. Mr. Sachinkrishna M. V

Assistant Professor Department of Forestry Sir Syed CollegeTaliparamba |

**Vision**

To develop skilled Human resources for the conservation and monitoring of birds and the sustainable management of their natural habitats

**Mission**

* To develop employable skills among the students
* To build research interests in the field of ornithology
* To disseminate the knowledge on birds and their importance in the field of nature conservation
* To monitor the population changes and migration patterns of birds in the context of climate change

**Programme specific outcome**

* Develop the skills of bird identification and monitoring
* Understand the ecology of birds
* Create a database for the monitoring of birdsthe context of global climate change
* Develop a sustainable vision in the management and conservation of natural habitats

**Methodology for Teaching, Learning and Evaluation**

**Teaching andLearning**

Lectures (Hybrid mode), Presentations, Assignmentsand Field visits.

**Evaluation Process**

The evaluation scheme for the course shall contain two parts

1. Internal assessment (Based on Internal test, assignment and Viva) – 20% Weight
2. External evaluation (Based on Theory and Practical exam) – 80% Weight

Each student should go through the evaluation process which is carried out in two sessions

1. Theory - 50% Weightage
2. Practical - 50% Weightage

The distribution of marks is given below

|  |  |
| --- | --- |
| **Theory** | **Practical** |
| Internal Test | External test | Assignment  | Viva Voce | External  |
| 10 | 40 | 5 | 5 | 40 |

|  |  |  |
| --- | --- | --- |
| **Component**  | **Internal evaluation** | **External evaluation** |
| **Theory** | 10 | 40 |
| **Practical** | 10 | 40 |

**Pass conditions:** The student should get a minimum of 15 marks (5 for internal and 10 for external evaluation) in both the theory as well as practical components.

|  |  |  |
| --- | --- | --- |
|  | **Marks per course** | **Pass Mark** |
| **Theory**  | 50 | 15 |
| **Practical**  | 50 | 15 |
| **Total**  | 100 | 30 |

**Detailed Syllabus (Theory and Practical) with references and model question paper**

**Name of Add on Course-: BASIC COURSE IN ORNITHOLOGY**

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| --- | --- | --- | --- | --- |
| **Duration of the course** | **Course Code** | **Hours per week** | **Credit and Modules** | **Exam Hours** |
| **30 hours** | **ACFOR1** | **2+3** | **V** | **3** |

**Course Outcomes**

1. Understand the behavioural changes in birds
2. Examine different migration patterns in the birds
3. Explain the ecology of birds in a habitat
4. Develop skills for the identification of common birds
5. Estimate the diversity and composition of birds in an area
6. Create a checklist of birds in a locality

**Module I: Introduction to Ornithology and Bird watching (4 Hrs)**

Ornithology- Definition, Renowned ornithologists and their contribution. The hobby of bird watching and its relevance in science. Bird watching tips for the beginners- Tools and Techniques. Ecological importance of birds- Endemism

**Module II: Ecology and Migration of Birds (6 Hrs)**

Bird ecology and behaviour – communication, courtship display and breeding behaviour.Types of feathers, Feeding guilds, Nesting behaviour and types of nests, bird flight – adaptations and types. Bird migration – reasons and types. Mechanics of migration – timing of migration, Migratory birds of Kerala

**Module III: Common birds of Kerala (6 Hrs)**

Identification of the common birds of Kerala with representatives from the bird orders- Podicipediformes (Grebes), Pelicaniformes (Pelicans), Ciconiformes (Egrets, Storks), Phoenicopteriformes (Flamingos), Anseriformes (Ducks), Falconiformes (Falcons), Galliformes (pheasants), Charadriiforms (Shorebirds), Columbiformes (Pigeons), Psittaciformes (Parakeets), Cuculiformes (Cuckoos), Strigiformes (Owls), Caprimulgiformes (Frogmouths), Apodiformes (Swifts), Trogoniformes (Trogons), Upupiformes (Hoopoe), Piciformes (Woodpeckers) and Passeriformes (Passerine birds)

**Module IV: Bird monitoring and census techniques (6 Hrs)**

Bird monitoring- Census methods and population estimation, Tagging and marking of birds for migration study, advanced technologies in bird data documentation- e-bird, Citizen science for bird watchers, Conservation of birds – IBA, Ramsar sites, Community reserves, Bird sanctuary and Conservation breeding projects.

**Module V: Practical and Fieldwork (8 Hrs)**

Field identification of common birds, Familiarisation of bird’s nest, visit to nearby wetlands and IBA, Documentation and uploading field data in e-bird, Familiarisation with software and data analysis.

**References**

Ali, S. and Ripley, D.S. 1990. A compact Handbook of Birds of Indian subcontinent. Oxford University press, Bombay.

Grimmet, R. Inskipp T and Inskipp, I. 2003. Handbook of Birds of Indian subcontinent. Oxford University press

Grimmet, R. Inskipp, T and Nameer, P.O. 2007. Birds of southern India, BNHS series.

Kazmierczak, K. and van Perlo B. 2000. A field guide to the birds of the Indian subcontinent, Yale University Press, New Haven. CT.

Neelakantan, K.K.1986. Keralathile Pakshikal (Birds of Kerala). Kerala Sahitya Academy, Thrissur.

**Add-on Courses in Forestry- Model Question Paper**

**ACFOR1 BASIC COURSE IN ORNITHOLOGY**

Time:90 minutes Maximum Marks: 40

 Part A- Fill in the blanks (5 x 1=5)

1. ------- is an extinct bird.
2. ------- is a ground nesting bird.
3. ------- is a bird endemic to western ghats.
4. Cuckoo makes its own nest. (Say True or False)
5. Father of Ornithology in India ……………………

Part B- Short Answer Questions (Answer Any **Five**) (5 x 2=10)

1. List out the Equipmentsused in bird watching
2. Bird migration
3. IBA
4. Name a book authored by Dr Salim Ali
5. Which order contain flight less birds?
6. Name two birds belonging to the order Ciconiformes
7. Feeding guilds of birds

Part C- Short Essay Questions (Answer Any **Three**) (3 x 5=15)

1. Write a note on bird census techniques?
2. What are the adaptations for birds for flying?
3. Write a note on bird migration
4. Types of feathers in birds
5. Feeding habits of birds with examples

Part D- Essay questions (Answer Any **One**) (1 x 10=10)

1. Write a short note on various approaches in bird conservation?
2. Write in detail about the different types of bird nest?
3. Role of water birds in wetland conservation

**Add-on Courses in Forestry- Model Question Paper**

**ACFOR1BASIC COURSE IN ORNITHOLOGY- Practical**

Time : 60 minutes Maximum Marks: 40

1. Identify the birds A, B, C, D and E. Write their common names and spot identification features (5 x 3 = 15 marks)
2. Write a short note on Point count method in bird survey? (3 marks)
3. Identify and write the common name of the birds F, G, H, I and J using their calls (5 x 2= 10 marks)
4. List out the nesting type of given birds K, L, M, N and O (5 x 1 = 5 marks)
5. Calculate the diversity of birds based on the given data ( 4 x 1 = 4 marks)

|  |  |
| --- | --- |
| Species | No: of individuals |
| A | 2 |
| B | 3 |
| C | 1 |
| D | 5 |
| E | 3 |
| F | 6 |
| G | 2 |
| H | 4 |

1. From a wetland, 40 egrets were caught, tagged and released. 15 days later 40 egrets were caught from the same habitat of which 10 were found to be already tagged. Estimate the population size of the egrets based on the given data? (3 x 1 = 3 marks)