SRI VENKATESWARA UNIVERSITY:: TIRUPATI CENTRE FOR DISTANCE AND ONLINE EDUCATION



PPR for M.Sc. Zoology

Choice Based Credit System (CBCS)

Amended as per NEP-2020

(w.e.f. the Academic Year 2024-2025)

DIRECTOR

Centre for Distance and
Online Education (CDCC)
Sri Venkateswara University
TIRUPATI - 517 502.



Vision:

- 1. Provide a sound education in basic science
- 2. Transform society through the empowerment of women
- 3. Provide inexpensive educational services to the weaker sections of society
- 4. Inculcate respect for nature and concern for ethical values among students through good and scientific educational practices.
- 5. Recognizing the essential roles of science and biology in the lives of citizens today and tomorrow, we emphasize biological literacy in our teaching and outreach programs.

Mission:

- 1. To impart to the students the contemporary advancements in life sciences.
- 2. To impart a global perspective and such skills among students that benefit humanity.
- 3. To promote the discovery and broad communication of knowledge about the biology of animals including their Taxonomy, Evolution, Physiology, Cell, Molecular and Biochemical make up, interaction with their environments and its Zoogeographical realms.
- 4. To develop research aptitude and a scientific advancement.
 - 6. Reinvent ourselves in response to the changing demands of society with high moral values as a good citizen

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Semester-I

| Components | Title of the | Status of | Title of the Paper | Credit | Num | IA | Sem | Total |
|----------------|--|--|---|---|--|---|---|--------|
| of Study | Course | Paper | _ | Hrs / | ber | Mar | ester | |
| | | | | Week | of | ks | End | |
| | | | | | Credi | | Mar | |
| | | | | | ts | | ks | |
| Coro* | ZOO-101 | Mandatory | Invertebrata &Chordata | 6 | 4 | 20 | 80 | 100 |
| Core | 700 102 | Mandatory | Matabolic Pagulation & | 6 | 1 | 20 | 80 | 100 |
| | 200-102 | ivialidatory | Cell Function | | | 20 | 80 | 100 |
| | ZOO-103A | | | 6 | 4 | 20 | 80 | 100 |
| Compulsory | | | Genetics & Evolution | | | | | |
| Foundation | ZOO-103B | Optional -1 | |] | | | | |
| | | | Endocrinology | | | | | |
| Elective | ZOO-104A | | | 6 | 4 | 20 | 80 | 100 |
| Foundation | | | Tools & Techniques | | | | | |
| | ZOO-104B | Optional -1 | |] | | | | |
| | | | Genetic Engineering | | | | | |
| Practical - I | ZOO-105P | Paper 1 & 3 | | 6 | 4 | | 100 | 100 |
| | | | Lab-1 | | | | | |
| Practical - II | ZOO-106P | Paper 2 & 4 | | 6 | 4 | | 100 | 100 |
| | | | Lab-2 | | | | | |
| Total | | | | | 24 | 80 | 520 | 600 |
| Audit Course | -I | | | 0 | 0 | 100 | 0 | 0 |
| | of Study Core* Compulsory Foundation Elective Foundation Practical - I Practical - II | of Study Course ZOO-101 ZOO-101 ZOO-102 ZOO-102 Compulsory Foundation ZOO-103A Elective Foundation ZOO-104A Foundation ZOO-104B Practical - I ZOO-105P Practical - II ZOO-106P | of Study Course Paper ZOO-101 Mandatory ZOO-102 Mandatory ZOO-103A Compulsory Foundation ZOO-103B Optional -1 Elective Foundation ZOO-104A Foundation ZOO-104B Optional -1 Practical - I ZOO-105P Paper 1 & 3 Practical - II ZOO-106P Paper 2 & 4 Total | of Study Course Paper ZOO-101 Mandatory Invertebrata & Chordata Core* ZOO-102 Mandatory Metabolic Regulation & Cell Function Compulsory Foundation ZOO-103A Compulsory Foundation ZOO-103B Optional -1 Endocrinology Tools & Techniques Genetic Engineering Practical - I ZOO-105P Paper 1 & 3 Practical - II ZOO-106P Paper 2 & 4 Lab-2 Total | of Study Course Paper Invertebrata & Chordata Core* ZOO-101 Mandatory Metabolic Regulation & 6 Cell Function Compulsory Foundation ZOO-103B Optional -1 Endocrinology Elective Foundation ZOO-104B Practical - I Practical - II ZOO-106P Paper 2 & 4 Total Invertebrata & Chordata Genetics & Evolution Foundation Tools & Techniques A Bab-1 Lab-1 Foundation A Compulsory Foundation A Conpulsory Foundation A Co | Of Study Course Paper Invertebrata & Chordata Hrs / Week ber of Credits Core* ZOO-101 Mandatory Invertebrata & Chordata 6 4 ZOO-102 Mandatory Metabolic Regulation & Cell Function 6 4 Compulsory Foundation ZOO-103A Genetics & Evolution 6 4 Elective Foundation ZOO-104A Tools & Techniques 6 4 Practical - I ZOO-105P Paper 1 & 3 Genetic Engineering 6 4 Practical - II ZOO-106P Paper 2 & 4 Lab-1 6 4 Total 36 24 | of Study Course Paper Invertebrata & Chordata Hrs / Week ber of Credits Marks Core* ZOO-101 Mandatory Invertebrata & Chordata 6 4 20 ZOO-102 Mandatory Metabolic Regulation & Cell Function 6 4 20 Compulsory Foundation ZOO-103A Genetics & Evolution 6 4 20 Elective Foundation ZOO-104A Tools & Techniques 6 4 20 Practical - I ZOO-104B Optional -1 Genetic Engineering 6 4 20 Practical - II ZOO-105P Paper 1 & 3 Lab-1 6 4 Total 36 24 80 | Course |

*All CORE Papers are Mandatory

Compulsory Foundation - Choose one paper

Elective Foundation - Choose one paper

Audit Course – 100 marks (Internal) – Zero Credits under self study

Interested students may register for MOOC with the approval of the concerned DDC but it will be considered for the award of the

grade as open elective only giving extra credits.

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Semester - II

| S.No | Components | Title of the | Status of | Title of the Paper | Cred | Num | IA | Sem | Total |
|------|------------------------|--------------|-------------|-----------------------------------|-------|------|-----|-------|-------|
| | of Study | Course | Paper | _ | it | ber | Mar | ester | |
| | _ | | | | Hrs / | of | ks | End | |
| | | | | | Wee | Cred | | Mar | |
| | | | | | k | its | | ks | |
| 1 | Core* | ZOO-201 | Mandatory | Molecular Biology | 6 | 4 | 20 | 80 | 100 |
| 2 | | ZOO-202 | Mandatory | Cell Biology & Immunology | 6 | 4 | 20 | 80 | 100 |
| 3 | Compulsory | ZOO-203A | | Neurobiology & Animal Behavior | 6 | 4 | 20 | 80 | 100 |
| | Foundation | ZOO-203B | Optional -1 | Bioinformatics & Biostatistics | | | | | |
| 4 | Elective Foundation | ZOO-204A | Optional -1 | Enzymology | 6 | 4 | 20 | 80 | 100 |
| | | ZOO-204B | | Pathobiology | | | | | |
| 5 | Practical - I | ZOO-205P | Paper 1 & 3 | Lab-1 | 6 | 4 | | 100 | 100 |
| 6 | Practical - II | ZOO-206P | Paper 2 & 4 | Lab-2 | 6 | 4 | | 100 | 100 |
| | Total | | | | | 24 | 80 | 520 | 600 |
| 7 | Audit Course | -II | | | 0 | 0 | 100 | 0 | 0 |

*All CORE Papers are Mandatory

Compulsory Foundation - Choose one paper

Elective Foundation - Choose one paper

Audit Course – 100 marks (internal) – Zero Credits under self study

Interested students may register for MOOC with the approval of the concerned DDC but it will be considered for the award of the

grade as open elective only giving extra credits.

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Semester – III

| S.No | Components | Title of the | Status of | Title of the Paper | Cred | Num | IA | Sem | Total |
|------|---------------|--------------|--------------|--------------------------|-------|------|-----|-------|-------|
| | of Study | Course | Paper | _ | it | ber | Mar | ester | |
| | | | | | Hrs / | of | ks | End | |
| | | | | | Wee | Cred | | Mar | |
| | | | | | k | its | | ks | |
| 1 | Core* | ZOO-301 | Mandatory | Developmental Biology | 6 | 4 | 20 | 80 | 100 |
| 2 | _ | ZOO-302 | Mandatory | Environmental Biology | 6 | 4 | 20 | 80 | 100 |
| | | ZOO-303A | | | 6 | 4 | 20 | 80 | 100 |
| 3 | Generic | | Optional -1 | Animal Biotechnology | | | | | |
| | Elective | ZOO-303B |] | | | | | | |
| | | | | Microbiology | | | | | |
| 4 | Practical - I | ZOO-304P | Core & | | 6 | 4 | | 100 | 100 |
| | | | Generic | Lab-1 | | | | | |
| | | | Electives | | | | | | |
| 5 | Skill | ZOO-305 | Mandatory | | 6 | 4 | 10 | 90 | 100 |
| | Oriented | | (Theory + | Economic Zoology | (3+3 | | | (40 | |
| | Course | | Practical) | |) | | | + | |
| | | | | | | | | 50) | |
| 6 | Open | ZOO-306A | | Environmental Impact | 6 | 4 | 20 | 80 | 100 |
| | Elective | | Optional - 1 | Assessment & Green | | | | | |
| | | | | Auditing | | | | | |
| | | ZOO-306B | | Human Health and | | | | | |
| | | | | Infectious diseases | | | | | |
| | Total | | | | 36 | 24 | 90 | 510 | 600 |
| | | | | | | | | | |

*All CORE Papers are Mandatory

Generic Elective - Choose two

Core papers and Generic electives opted paper held Practical-I

Skill Oriented Course is Mandatory. Relevant to Society along with practical (10 marks Internal, 40 final theory & 50 for practical's)

Open Electives are for the Students of other Departments. Minimum One paper should be opted. Extra credits may be earned by opting

for more number of open electives depending on the interest of the student through self study. Interested students may register for MOOC with the approval of the concerned DDC.

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Semester – IV

| S.No | Components of Study | Title of the Course | Status of Paper Mandatory | Title of the Paper Toxicology | Cred it Hrs / Wee k | Num ber of Cred its | IA Mar ks | Sem ester End Mar ks | Total |
|------|--|----------------------|--------------------------------------|--|---------------------|---------------------------------|-----------------|-----------------------|-------|
| | Core* | | | | | | | | |
| 2 | | ZOO-402 | Mandatory | Comparative Animal Physiology | 6 | 4 | 20 | 80 | 100 |
| 3 | Generic Elective | ZOO-403A ZOO-403B | Optional -1 | Biodiversity and Conservation Animal Husbandry and Poultry Farming | 6 | 4 | 20 | 80 | 100 |
| 4 | Practical - II | ZOO-404P | Core & Generic Electives | Lab-1 | 6 | 4 | | 100 | 100 |
| 5 | Multi Disciplinary Course / Project Work | ZOO-405 | Mandatory (Theory + Practical) | Principles and Practices of Aquaculture | 6 (3+3) | 4 | 10 | 90 (40 + 50) | 100 |
| 6 | Open Elective | ZOO-406A ZOO-406B | Optional - | Environmental Microbiology Medical Biotechnology, IPR, Biosafety and Bioethics | 6 | 4 | 20 | 80 | 100 |
| | Total | | 1 | | 36 | 24 | 120 | 480 | 600 |

*All CORE Papers are Mandatory

Generic Elective - Choose two

Core papers and Generic elective opted paper held Practical-II

Project Work – Collaboration with various firms/companies/societies.

Multi-disciplinary course is Mandatory. Circle formation with other subjects/Dept. of

Arts/Commerce

Open Electives are for the Students of other Departments. Minimum One paper should be opted. Extra

credits may be earned by opting for more number of open electives depending on the interest of

the student through self study.

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Interested students may register for MOOS with the approval of the concerned DDC.

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