

BSC ZOOLOGY PROGRAMME OUTCOMES AND OUTCOME BASED EDUCATION (OBE)

Outcomes are what the students are expected to be able to do at the end of a unit of learning. The unit of learning is three-year formal programme.

An Outcome:

- Should unambiguously state what the student should be able to do/perform.
- What the students do or perform are observable and assessable?
- Students should be able to understand what it means (comprehensible).
- Should be able to provide guidance to students in planning their learning.

Outcome Based Education (OBE) was introduced by William Spady in early 1990s

for American school system and eventually adapted by higher education systems.

This is an approach to education in which decisions about the curriculum and

instructions are driven by the exit learning outcomes that the students should

display at the end of a programme or a course. OBE establish the conditions and

opportunities within the system that enable and encourage all students to achieve those essential outcomes. A system based on outcomes gives top priority for learning, accomplishments and results.

Advantages of OBE

Relevance: Outcome based education promotes fitness for practice and education for capability.

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Discourse: The process of identification of the outcomes within an institution promotes discussion of fundamental questions.

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Clarity: An explicit statement of what the educational process aims to achieve clarifies the curriculum for both students and teachers, and provides a focus for teaching and learning.

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Provision of a Framework: OBE provides a robust framework for integration of the curriculum.

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Accountability: By providing an explicit statement of what the curriculum is setting out to achieve, OBE emphasizes accountability.

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Self Directed Learning: If students are clear about what they are trying to achieve, they can take more responsibility for their own learning. OBE thus promotes a student-centered approach to learning and teaching.

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Flexibility: OBE does not specify educational strategies or teaching methods.

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Guide for Assessment: The outcomes provide the framework for student examinations.

• *Facilitates Curriculum Evaluation:* The outcomes provide benchmarks against which the curriculum can be judged.

Three levels of Outcomes:

- Programme Outcomes (POs)
- Programme Specific Outcomes (PSOs)
- Course Outcomes (COs) 15

Syllabus of B.Sc. Zoology Programme: 2019 onwards University of Calicut Programme Outcomes (POs) indicate the generic knowledge, skills and attitudes

that every student graduating from a UG programme should attain. While every

course of the programme can address only a subset of POs, all the core courses

together should be able to address all the POs.

1. Programme Outcomes (POs) for General Undergraduate Programme:

PO1. **Critical Thinking:** Take informed actions after identifying the assumptions

that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PO2. **Problem Solving:** Understand and solve the problems of relevance to society

to meet the specified needs using the knowledge, skills and attitudes acquired from humanities/ sciences/mathematics/social sciences.

PO3. **Effective Communication:** Speak, read, write and listen clearly in person

and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

PO4. **Effective Citizenship:** Demonstrate empathetic social concern and equity

centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

PO5. **Environment and Sustainability:** Understand the issues of environmental

contexts and sustainable development.

PO6. **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context of socio technological changes.

2. Programme Specific Outcomes (PSOs):

PSOs are specific to a programme and are to be attained at the time of graduation from the programme. They are to be identified by a committee with

representation from all stakeholders.

2. PSOs Program Specific Outcomes

PSO1

Understand the biological diversity and grades of complexity of various animal forms through their systematic classification and process of organic evolution.

PSO2

Understand the roles of plants, animals and microbes in the sustainability of the environment and their interaction among themselves and deterioration of the environment due to anthropogenic activities.

PSO3

Understand the concepts and principles of biochemistry, immunology, physiology, ethology, endocrinology, developmental biology, cell biology, genetics, molecular biology and microbiology and develop technical skills in biotechnology, bioinformatics and biostatistics.

PSO4

Perform laboratory procedures as per standard protocols in the areas of animal diversity, systematics, cell biology, genetics, biochemistry, molecular biology, microbiology, physiology, immunology, developmental biology, environmental biology, ethology, evolution and science methodology,

3. Course Outcomes (COs):

Course outcomes are statements that describe significant and essential learning that the learners have achieved and can reliably demonstrate at the end of the course. Course outcomes are what the student should be able to do at the end of the course.