

COURSE TITLE	MAJOR PROJECT
COURSE CODE	01CB0801
COURSE CREDITS	15

Objective:

- 1 The internship offers an open-ended opportunity to explore real-world bioinformatics challenges, apply advanced computational approaches, engage in interdisciplinary collaboration, and critically reflect on professional growth through hands-on experience and communication.

Course Outcomes: After completion of this course, student will be able to:

- 1 Apply bioinformatics tools to assess data or build models.
- 2 Analyze and interpret biological data with statistics and visuals.
- 3 Design innovative bioinformatics solutions or computational workflows for biological research problems.
- 4 Demonstrate teamwork, uphold ethics, and communicate effectively in projects.

Pre-requisite of course: Basic knowledge of all academic subjects and readiness to explore new things.

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
0	0	30	0	0	0	200	200
Contents : Unit	Topics						Contact Hours
Total Hours							

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	Criteria 1 Project/Problem Identification	18
2	Criteria 2 Project Objectives, Identifying the gaps.	36
3	Criteria 3 Project Designing and methodology .	36
4	Criteria 4 Implementation of Project	108

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
5	Criteria 5 Analysis, Interpretation, Validation, Testing, and Evaluation/Conclusion	18
6	Criteria 6 Presentation and Report Writing.	36
Total Hours		252

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
0.00	0.00	35.00	35.00	30.00	0.00

Instructional Method:

- 1 Experiential Learning through full-time engagement in research labs, biotech companies, or computational biology teams.
- 2 Mentorship-Based Supervision, combining industry or research mentor guidance with periodic faculty reviews to support learning, problem-solving, and reflective documentation.

Supplementary Resources:

- 1 MOOC Courses