

Institute of Vocational Studies (GGSIPU), New	B.Ed. 2024-26 Batch, Semester-II
Course Title: Teaching of Biology	Credits: 4
Course Code: BED150	MM: 100
Objectives of the Course: To develop in student-teachers an understanding of the nature of Biology and its interface with Society To acquire and learn specific laboratory skills and technological skills to conduct practical work in Biology. To develop the techniques of regular assessment for continuous review of progress of students' performance. To evolve as a reflective practitioner through use of innovative practices in the teaching of Biology.	

S. No.	COURSE CONTENTS	TOPICS	e-RESOURCES
1	Unit I: Biology in School Curriculum	Nature, Need and Scope of Biology as a discipline in science Significance of Biology in daily life and its relevance to Social and Environmental Issues Aims & Objectives of Teaching Biology and formulation of objectives in behavioral terms Correlation of Biology with other subjects Characteristics of an effective Biology Curriculum: Holistic, Integrated, Enjoyable and Engaging Curriculum Biology Text Books: Qualities, Effective use and Criteria for its evaluation Critical analysis of Biology Curriculum with special reference to National Curriculum Framework-2020	https://byjus.com/biology/nature-and-scope-of-biology/ https://www.allenoverseas.com/blog/biology-in-daily-life-uses-importance-and-facts/ https://tmv.ac.in/ematerial/bed/mif/SEM%202%20(Pedagogy%20of%20Biological%20Science).pdf https://epathshala.nic.in/pages.php?id=download-app&in=en https://ciet.ncert.gov.in/ https://epathshala.nic.in/pages.php?id=download-app&in=en https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
2	Unit II: Planning, Designing and Transaction	Micro Teaching Development of Unit plan and Lesson Plan using variety of approaches. Concept Map: Preparation and usage Teaching Methods and approaches (Illustration of the use of these approaches/methods taking example) Instructional Aids: (a) Teaching Learning Material: Preparation, Improvisation and Effective use, Rea (b) ICT based Teaching Learning Material: preparation, selection and effective use Planning and execution of Extended Experiences: - Excursions, Science Exhibition, Science Fair, Scie Biology Laboratory: Design, Organization, Management and Competencies associated with laboratory Virtual Laboratory, Biological Museum (Botanical and Zoological), Terrarium, Vivarium and Herbari	https://pmc.ncbi.nlm.nih.gov/articles/PMC3724377/ https://www.extramarks.com/blogs/teachers/unit-plan/ https://xmind.com/blog/concept-map-tutorial https://www.labster.com/blog/8-ways-teach-biology https://www.ndl.iitkgp.ac.in/ https://www.idreameducation.org/blog/power-of-ict-in-teaching-and-learning/ https://narasinhaduttcollege.edu.in/ws/wp-content/uploads/2021/06/A-project-on-Visit-to-Zoological-Garden-Alipore-and-World-Wildlife-Day-celebration-World-Wildlife-Day-celebration.pdf https://www.labkaf.com/blog/best-practices-to-design-an-efficient-and-safe-school-science-lab/ https://bsi.gov.in/page/en/virtual-herbarium
3	Unit III: Evaluation in Biology	Concept, Types and Techniques of Evaluation in Biology for Theory & Practical Assessment in Biology: Concept and its types Assessment tools in Biology: observation schedule, checklist, Anecdotal record, open book examination Techniques/ Methods of Assessment: Observations, Examination, Assignments, Projects, Performance Diagnostic tests, remedial/enrichment measures & monitoring learner's progress in Biology	https://cup.edu.in/school_education/data/E-content_module/AFLPDF/AFL015.pdf https://cbseacademic.nic.in/web_material/Manuals/Biology_LF.pdf https://cup.edu.in/school_education/data/E-content_module/AFLPDF/AFL015.pdf https://cbseacademic.nic.in/web_material/Manuals/Biology_LF.pdf https://delnet.in/ https://jirssonline.in/HTML_Papers/International%20Journal%20of%20Reviews%20and%20Research%20in%20Social%20Sciences_PID_2018-6-1-3.html https://leadschool.in/blog/a-list-of-ict-tools-for-teaching-and-learning-lead/
4	Unit IV: Professional development of a Biology	Qualities and Competencies of a Biology Teacher Professional Growth and development of a biology teacher at Individual, Organizational and Governm Need and relevance of participation in MOOCs, OERs, Seminars, Workshops, Conferences, FDPs, Sy Field Visits for teacher enrichment: botanical gardens, biodiversity parks, zoological parks. Action research: Concept and Identification of problems faced by Biology teachers in the classroom Biology Teacher as a Researcher and a Reflective practitioner Preparing the Biology Teachers for Technology Integration: Planning with integrating Technology for	https://ncert.nic.in/dte/pdf/Reflective_Teaching-13221.pdf https://www.researchgate.net/publication/379249557_CHAPTER_15_PROFESSIONAL_GROWTH_AND_DEVELOPMENT_OF_BIOLOGY_TEACHERS https://jiip.in/articles/commitment-in-india/ https://narasinhaduttcollege.edu.in/ws/wp-content/uploads/2021/06/A-project-on-Visit-to-Zoological-Garden-Alipore-and-World-Wildlife-Day-celebration-World-Wildlife-Day-celebration.pdf https://www.istor.org/stable/4449776 https://ncert.nic.in/dte/pdf/Reflective_Teaching-13221.pdf https://www.isibang.ac.in/~library/online/rz/resources/Teacher_TechHandbook.pdf

