

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences.

DESCRIPTION:

Different student centric methods related to experiential and participative learning are undertaken by the faculty of the college. Field studies pertaining to botany, zoology, geography, geology, sociology etc. are carried out by students as part of their course curriculum. The students from basic science such as physics, chemistry, botany, geology, zoology and mathematics undertake experiments in their laboratory. Internship and industry visits form a part of the curriculum of certain Add-On courses. Besides, students are given different projects to accomplish as part of their curriculum. The students are made to engage in participative learning by undertaking plantation, cleanliness drives, conducting street plays, participating in different activities like poster making, wall magazine preparation, painting, drama etc to voice their opinion on significant social, political, environmental issues and raising awareness on different issues in the adopted village of the college. The course curriculum followed by the institution incorporates topics of experiential and participative learning which are enlisted as follows:

EXPERIENTIAL AND PARTICIPATIVE LEARNING				
Sl. No	Subject	Course Code	Title of the Course	Methods
	Botany	BC101P, BC102P, BC203P, BC204P, BC305P, BC306P, BC307P, BC408P, BC511P, BC512P, BD501P, BD502P, BC613P, BC614P, BD605P, BD608P	Microbiology and Phycology, Biomolecules and cell Biology, Mycology and Phytopathology, Archegoniate, Anatomy of Angiosperms, Economic Botany, Genetics, Molecular Biology, Reproductive Biology of Angiosperms, Plant physiology, Analytical Techniques in plant sciences, Bioinformatics, Plant metabolism, Plant Biotechnology, Plant breeding, Biostatistics.	Experimental learning
		BC409P, BC410P	Plant Ecology and Phytogeography, Plant systematics	Experimental and Field visit
	Chemistry	Chemistry-C	Inorganic Chemistry Laboratory; Organic Chemistry Laboratory;	Experimental learning

		PRACT:101, 301, 401, 601 Chemistry-C PRACT: 201, 302, 402, 501, 602 Chemistry-C PRACT:102, 202, 303, 403, 502 Chemistry-PRACT DSE 501 Chemistry-LAB DSE 602 Chemistry-PRACT DSE 502 Chemistry-PRACT DSE 603	Physical Chemistry Laboratory; Analytical Methods in chemistry; Industrial Chemistry and Environment; Green Chemistry Dissertation (Project work)	Field and experimental learning
	Education	EDNH-303 DSEED-604 EDMH-402	Experimental psychology and laboratory practical Project report Teaching practice	Experimental learning Field study Participative learning
	Physics	C1, C2, C3, C4, C4, C6, C7, C8, C9, C10, C11, C12, DSE-1, C13, C14, DSE-3, DSE-4, GE-1, GE-2, GE-3, GE-4	Mathematical Physics-I, Mechanics, Electricity and Mechanism, Waves and Optics, Mathematical Physics-II, Thermal Physics, Digital Systems and Applications, Mathematical Physics-III, Elements of Modern Physics, Analog Systems and Applications, Quantum Mechanics and Applications, Solid State Physics, Electromagnetic Theory, Statistical Mechanics	Experimental Learning
	Geography	C1, C2, C3, C4, C5, C11, C12 C7, C10	Geomorphology and Bio Geography, Climatology, Human Geography, Geography of India, Cartography, Regional planning and Development, Population geography	Practical learning Experimental Learning Field Based learning

		C14 SEC	<p>Statistical methods in Geography, Remote sensing and GIS</p> <p>Disaster management and field visit</p> <p>Remote sensing and GPS based project report, GIS Based Project Report</p> <p>Field techniques and survey-based project report</p>	<p>Practical Learning</p> <p>Field Based learning</p>
	Geology	<p>C1(P),C2(P),C3(P),C4(P),C5(P),C6(P),C7(P),C8(P),C9(P),C10(P),GE1(P),GE2(P), GE3(P),GE4(P),GEOM502PR,GEOM504PR,GEOM506PR,GEOM508PR,GEOM602PR,GEOM604PR,GEOM606PR,GEOM608 PR</p> <p>GEOM604 PR</p>	<p>Earth System Science, Crystallography & mineralogy, Geochemistry & optical mineralogy, Structural geology & Plate tectonics, Igneous petrology, Sedimentary petrology, Metamorphic petrology, Paleontology, Stratigraphic principles & Indian stratigraphy, Hydrogeology & oceanography, Introduction to geology, Paleontology, Structural geology & tectonics, Geomorphology & Remote sensing, Paleontology, Economic Geology, Structural geology part 2, Surveying & field mapping, Mining & engineering geology, Satellite imagery, Hydrogeology Practical</p> <p>Field work</p>	<p>Practical Learning (analytical and problem solving)</p> <p>Field Study</p>
	Mathematics	C1.1P, C2.2P, C3.3P, C4.1P, DSE2.1P	Calculus, Differential equations, PDE and Systems of ODE, Numerical methods, Mathematical modelling	Experimental and Problem solving
	Statistics	C101, C201, C301, C302, C401, C402,	Descriptive statistics, Probability and Probability Distribution, Sampling Distribution, Survey	Experimental and Problem solving

		C403, C501, C502, C601, C602, DSE1, DSE2, DSE3, DSE4	sampling and Indian official statistics, Statistical inference, Linear Model, Statistical Quality control, Stochastic process and Queuing theory, Statistical computing using C/C++ programming, Design of experiments, Multivariate analysis and non-parametric methods, Time series analysis, Econometrics, Demography and vital statistics, Project work	Experimental and Problem solving
	Zoology	ZC101P, ZC203P, ZC204P, ZC305P, ZC306P, ZC307P, ZC408P, ZC409P, ZC410P, ZC511P, ZC512P, ZD608P, ZG101P, ZG202P, ZG307P, ZG404P ZC102P, ZD501P, SEC	Non Chordates I; Non Chordates II: Coelomates; Cell Biology; Diversity of Chordata; Animal Physiology: Controlling and Coordinating systems; Fundamentals of Chemistry; Comparative anatomy of vertebrates; Animal Physiology: Life sustaining systems; Biochemistry of metabolic processes; Molecular Biology Principles of Ecology; Animal behavior and chronobiology, Vermicompost- technology	Experimental Learning Field Study Experimental learning and field study

ADDITIONAL INITIATIVES TO IMPROVE EXPERIENTIAL AND PARTICIPATIVE LEARNING

Additionally, the teachers in individual departments engage students in problem-solving activities such as quizzes in Mathematics, tackling real life situations or problems such as in Education department, making students work together in small groups for instance group discussions, role-plays used in English, Assamese and other departments, developing critical thinking as in English, Assamese, Political Science, Economics etc. Moreover, students of every department have to make presentations in seminar.

PHOTOGRAPHS OF EXPERIENTIAL AND PARTICIPATIVE LEARNING







PHOTOGRAPHS OF EXPERIMENTAL LEARNING



