#### Office of the Principal

Sant Shiromani Guru Ravidas Government College Sargaon, Dist-Mungeli (C.G.)

(College Code-2904) www.ssgrgcsargaon.ac.in email- ssgrgovtcollegesargaon@gmail.com

Date ......

## Syllabus/Course Out.come Class- B. Sc. I, II & III Subject – Botany

The three year degree courses syllabus of botany taught in this college cover all the aspects of plants sciences. Students of botany are taught about the classification, morphology and life cycle pattern of various groups of plants like Thallophyta, Bryophyta, Pteridophyta, Gymnosperm and Angiosperms. The evolutionary pattern and diversity among these plant groups are also studied. Students are further subjected to logical thinking towards plant kingdom. They are taught about the cellular and organeller structure and function of prokaryotes and eukaryotes. As they move to higher classes, they learn about the origin and evolution of seed bearing plants, their nomenclature, system of classification, anatomical diversity, embryology, biochemistry, physiology and the aspects of their interaction with environment and adaptation there on. Various aspects of applied botany like tissue culture and biotechnology, plant utilization for different purposes, modern techniques of plants propagation etc, are also studied by the students.

Students learn to carry out practical work in laboratory and field also. They gain introductory experience and develop skill though practical learning. They find practical evidence of plant physiological processes through experiments. Through such experiments, they not only gain scientific knowledge and ability to analyze their problems in identification and taxonomic positioning of plants rater students also understand the importance of plant diversity in societal and environmental contexts as well as for sustainable development. They are taught about the modern ethical principles concerned with environmental ethics and responsibility and norms of biodiversity.

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N. K. Simph
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certified

Principal ant Shiromani Guru Ravida

Govt. College, Sargaon Distt. Mungeli (C.G.)

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# Syllabus/Course Out come Class- B. Sc. I, II & III Subject - Zoology

The Syllabus of three year under-graduate course taught in this college cover all the aspects of animal biology. Students gain knowledge and skill in the fundamentals of structure Nomenclatures, Classification, Physiology, Anatomy, Histology and Reproductive Behavior of animals of various Phyla. Moreover, it also cover the entire area of cell biology and metabolism. Student also learn about evolutionary process and behavior of animals. The courses provide an in-depth of environmental biology including conservation process, pollution, biodiversity and protection of endangered species, It throw light on basic concept of genetics and molecular biology so that student can be oriented towards modern fields of research and innovations.

To cope with the development of economy of our country, students are taught topics like animal/agro based industries like sericulture, apiculture, fish farming, vermin compost preparation etc. Students also learn about ethical principle and to commit professional ethics and responsibilities in delivering their duties and also to develop empathy and love towards animals. Ultimately, all the their contribute to knowledge for Nation building.

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A.K. Toppo Asst. Pro. of Zonlogy

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# Syllabus/Course Out come Class- B. Sc. I, II & III Subject - Chemistry

The syllabus of Chemistry at under-graduate level which is taught in this college cover all aspects of classical and modern chemistry. It helps in developing understanding of major concepts, theoretical principles and experimental findings of the subject in students. Students learn to develop the ability of critical thinking and efficient problem solving skills in the four basic areas of chemistry viz; analytical, organic, inorganic and physical. It throws light on the nature and purity of crystals, kinetics of chemical reactions, nature and function of biomolecules like DNA, RNA hemoglobin and many organometallic complexes, nature and classes of dyes and other organic chemicals/reagents. It provide an opportunity to learn about the possibility of development of pharmaceutical compounds from certain heterocyclic compounds and their analogues. Students learn about the basic ideas of quantum chemistry. Moreover, they are subjected to learn about the structure and function of basic instruments like colorimeter, spectrophotometer, pH meter, chemical balance etc. Techniques like PAGE, SDS-PAGE, paper chromatography, column chromatography, ion-exchange and affinity chromatography, spectrophotometry, spectroscopy etc are learnt by students. Besides all these, students are also taught to remain curious, vigilant and disciplined in chemistry laboratory so that accidences can be avoided.

certifi'ed

Dr. Sandhug Patri

Asstt. Professor

Dept. of chemistry

Sant Shiromani Guru Ravidas Govt. College, Sargaon

Distt. Mungeli (C G.)