

# B.Sc. Honours in Chemistry

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## PROGRAMME SPECIFIC OUTCOME

Sufficient reference books, well equipped laboratories, sophisticated instruments, digital and computational facilities, group work along with effective teaching, learning & evaluation are provided to the chemistry students by Chemistry Department for fruitful running of the UG courses in P. K. College, Contai. As a result from the above facilities the following outcomes are revealed.

### *Depth and breadth of knowledge*

- Student will be able to gather the fundamental scientific principles in the different fields of chemistry (analytical, inorganic, organic and physical) and apply these principles to solve problems.
- They will be able to apply the relevant knowledge to solve the problems that emerge from the broader interdisciplinary subfields (e.g. life, environmental and materials sciences). As a result they will be able to explore the new area of research and education.

### *Familiar with methodologies*

- Students will be able to assemble a lot of knowledge about various procedures of chemical analysis, synthesis and monitoring of chemical reactions. They can also learn the techniques for safe use and handling of chemicals.
- The students are able to use modern online searching and retrieval methods to obtain information about different chemicals, synthetic procedures or any issue relating to chemistry.

### *Application of knowledge*

- Students will be able to identify and describe the underlying principles behind the chemical techniques relevant to academia, industry and government in addition.
- Under proper guidance they will be able to apply the methodologies in order to conduct new chemical synthesis (during project work), analysis or other chemical investigations.
- Students will be able to develop a confirmable hypothesis, execute experiments related to research, compliable raw data and provide conclusion.

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## *Communication skills*

- Students can gain the power to prepare logical, organized and concise write up and oral and poster presentations that effectively communicate chemical content to other people.

## *Awareness of the limits of knowledge*

- The students can recognize assumptions and limitations in the scientific models and simulations and also propose their possible impact on the results.
- They can achieve the capability to identify source of errors in analytical experiment.

## *Scope for future in interdisciplinary field*

- Through proper learning of full UG course in chemistry, a student can get various opportunities for their future work in interdisciplinary field like biochemistry, nano fields, polymer science and industrial chemistry.

## *Job Opportunity*

- After completion of B.Sc. UG course in Chemistry, the majors are able to gain experiences in critical thinking and scientific inquiry in the performance, design, interpretation and documentation of laboratory experiments. Finally, they will be sufficiently trained to get employment in Govt. sector, non Govt. sector or in chemical/ pharmaceutical industry.