



Central Research Laboratory Govt. College Women University, Sialkot



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Central Research Laboratory

Govt. College Women University Sialkot

Introduction:

In 2018, Govt. College Women University Sialkot decided to develop a reliable and standard research platform in support of faculty of Natural Science, and established a common place for basic and advanced science based research which was named as *Central Research Laboratory (CRL)*. This laboratory was committed to accommodate the best of instrumental aspects of multidisciplinary research e.g Physics, Materials Science, Chemistry, Zoology, Botany, Environmental Science etc. With the time, It will be equipped with the best and trained instrument professionals/researchers/Scientists to serve the scientific community of the GC Women University Sialkot as well as surrounding institutes with in or around the Sialkot.

In early Phase the CRL would focus on the optimal usage of the equipment and instruments for different processes, tests and characterization for the basic and technological research of the relevant departments of the Natural Science Faculty.



Mission Statement:

GCWUS *Central Research Laboratory (CRL)* is intended for providing access to state-of-the-art instrumentation, essential facilities for a flourishing university research programs. The Laboratory should be equipped with latest scientific equipment as well as with advanced research trainings. CRL aims to provide a platform to our researchers to compete with the national and international research scholars.

Role of CRL in the University:

Central Research Laboratory (CRL) has been established in the University in 2018. A handsome amount has been spent to Purchase state-of-the art scientific equipment. It has been playing a pivotal role in supporting the research activities of the five departments (Botany, Chemistry, Environmental Science, Physics and Zoology) of faculty of Natural Science.



Objectives:

1. To provide basic research support to the departments of the Faculty of Natural science for their instrumentation requirements.
2. To reinforce the facilities with scientific research equipment making it a central hub for scientific research in collaboration with local industry in the region of Sialkot.
3. Look after and upgrading of equipment in the facility as well as that at various departments in the university.
4. For sponsored research and consultancy, CRL platform will be used to promote University and Industrial collaboration through essential services.

Facilities in the CRL:

1. The Central Research laboratory presently hosts the following instruments

(1) High Performance Liquid Chromatography (HPLC)



(2) Fume Hoods (for microbial and chemical synthesis etc.)



(3) Data Analysis and Simulation Lab (for data analysis as well as theoretical and simulation based research).



(4) Compact Research Centrifuge



(5) Water Distillation Apparatus



(6) Orbital Shaker



(7) UV Visible Spectrophotometer



(8) Autoclave



(9) Water Bath



(10) PCR Thermal Cycler



(11) Gel-Doc (Complete Setup)



(12) Lab Fridge



(13) Muffle Furnace (1200 °C)



(14) -86 °C Ultra-low Temperature Freezer



- Following departments are being facilitated:
 - Department of Physics, Govt. Women University Sialkot.
 - Department of Chemistry, Govt. Women University Sialkot.
 - Department of Zoology, Govt. Women University Sialkot.
 - Department of Botany, Govt. Women University Sialkot.
 - Department of Environmental Science, Govt. Women University Sialkot.