



WOMEN UNIVERSITY SWABI

KHYBER PAKHTUNKHWA-PAKISTAN

Department of Clinical Laboratory Sciences





Vice Chancellor's Message

Welcome to Women University Swabi, a university that is committed to empower women through higher education and provide them opportunities to work in a wide array of settings such as education, business, industry, health, and social services sectors.

To me, the job of a university is not only to produce degree holders and commercially marketable human resources, but I believe it is more than that. Universities are required to produce loyal, honest and enlightened human beings who can empathetically understand the needs of society, reverentially work in both national and international community, and take better care of the future generations.

PROF. DR. SHAHANA UROOJ KAZMI
WOMEN UNIVERSITY SWABI
KHYBER PAKHTUNKHWA-PAKISTAN



Department of Clinical Laboratory Sciences

Vision

The vision of the Department of clinical lab sciences is that the knowledge in theory and practical aspects is imperative for the development of the country.

Mission

The Department considers its mission as to produce personnel with expertise of the highest standard in the field of Clinical lab sciences to cater the increasing demand in the country in health care industry to produce skilled graduates who can choose research fields or professional career as CLS in various industries

Since majority of the students are from financially and socially backward, their primary aim is to get a job after their studies with minimum financial expenditure. Our alumni profiles reflect the achievement of this objective as most of them selected their career in the fields of CLS and related ones.

BS Clinical Laboratory Sciences

ABOUT US

The Department of Clinical Laboratory Sciences was established at the Women University Swabi in March 2020. BS Clinical Laboratory Sciences is a four-year full-time degree course which includes a dissertation project in the final year. The course aims at providing highly competent and skilled technical personnel in the field of laboratory medicine. Amongst the various branches of medical science. Clinical Lab Sciences is an emerging profession giving service to mankind in the promotion of health. Our faculty believes in training competent professionals who will be of good benefit to the needy in the field of health care. For those career focused youngsters, this is a unique opportunity to pursue this great professional course from the lecture. Like any other profession in the field, this has also an element of humanity, nobility and divinity. The course has a balanced combination of subjects with a substantial component of medical subjects which include anatomy, physiology, biochemistry, microbiology, pathology, molecular biology. In addition, these are basics of engineering related specialties like; computer science and biomedical instrumentation technology are also taught during the course. The objectives are, to

- Equip the students with relevant professional knowledge.
- Technical skills and ethical values to facilitate patients.
- Management by the professionals and efficient health service delivery.
- Full range of laboratory tests from simple prenatal blood tests, to more complex body fluids to uncover deadly diseases.
- Confirmation of accuracy of test results, reporting laboratory findings to pathologists and other physicians.
- Empower women to meet the shortage of health care setting in District Swabi.

Clinical Laboratory Sciences (CLS)

A Clinical laboratory science degree can help you prepare to analyze data and samples that are vital to providing accurate patient diagnoses and treatment plans, developing disease management and prevention protocols and creating new pharmaceutical products. This type of training can prepare graduates for a wide variety of careers in applied medicine, medical research and biotechnology. Some of the career fields you might explore after receiving your medical laboratory science degree include: Medical Laboratory Scientists, Medical Laboratory Technicians, Cytotechnologists, Histotechnologists, Phlebotomists, Molecular Biologists, Pathologists' Assistants, Clinical Chemists.

If you are interested in a career that allows you to apply your critical thinking skills and conduct essential medical research, then you might consider pursuing a medical laboratory science degree.

Why to Choose CLS as a Career

- Medical laboratory science provides clues that are key in the diagnosis and treatment of disease or injury.
- Laboratory professionals provide clues that assist in the maintenance of healthy lifestyles.
- Clues to solving the mysteries of diseases are found in our own bodies.
- Medical laboratory professionals work in many settings: hospitals, doctor's offices, clinics, research facilities, public health centers, the Armed Forces, veterinary offices, colleges, business, and industry.
- Laboratory tests monitor the composition of our blood, urine, and other body fluids and tissues for early warning signs of disease.
- Laboratory professionals perform tests that are crucial to our health and well-being.
- Consider focusing your interest in biology or chemistry into this more specific and marketable major. If you enjoy the challenges and rewards of medicine and science, this is the profession for you.

BS (4 Years) Clinical Laboratory Sciences

(4 Years)
8 Semesters

Total Credit Hours 132

Admission Criteria

12 years of formal education F. Sc. / A level or equivalent with Biology and Chemistry. Minimum 45 % marks at intermediate level or equivalent. No third division in matric.

Scheme of Studies BS Clinical Laboratory Sciences

COURSE TITLE	CATEGORIES	COURSE CODE	CREDIT HOURS
Semester 1			
Introduction to Clinical Laboratory Sciences	Major-01	BSCLS-101	3(2+1)
Islamic Studies	G. Ed.-01	ISL-301	3(3+0)
English Grammar & Composition	G. Ed.-02	ENG-301	3(3+0)
Introduction to Computer	G. Ed.-03	CS-301	3(3+0)
Urdu	G. Ed.-04	URDU-301	3(3+0)
Semester 2			
Bio Safety & Bio Security	Major-02	BSCLS-102	3(2+1)
Pakistan Studies	G. Ed.-05	PAKS-301	3(3+0)
Basic Communication Skills	G. Ed.-06	ENG-302	3(3+0)
Islamic History	G. Ed.-07	PAKS-302	3(3+0)
Basic Computer Programming	G. Ed.-08	CS-302	3(3+0)

Semester 3			
Human Physiology	Major-03	BSCLS-103	3(2+1)
Human Anatomy	Major-04	BSCLS-104	3(2+1)
Technical Report Writing	G. Ed.-09	ENG-401	3(3+0)
Introduction to Laboratory Management	G. Ed.-10	MGT-401	3(3+0)
Introduction to Microbiology	G. Ed.-11	MIC-401	3(2+1)
Semester 4			
Medical Biochemistry-I	Major-05	BSCLS-105	3(2+1)
General Pathology-I	Major-06	BSCLS-106	3(2+1)
Clinical Laboratory Instrumentations	Major-07	BSCLS-107	3(2+1)
Introduction to Human Rights in Health Care Sectors	G. Ed.-12	LAW-403	3(2+1)
Introduction to Biotechnology	G. Ed.-13	BTCH-401	3(2+1)
Semester 5			
General Pathology-II	Major-08	BSCLS-108	3(2+1)
Clinical Bacteriology	Major-09	BSCLS-109	3(2+1)
Human Genetics & Cytogenetics	Major-10	BSCLS-110	3(2+1)
Hematology	Major-11	BSCLS-111	3(2+1)
Medical Biochemistry-II	Major-12	BSCLS-112	3(2+1)
Clinical Virology	Major-13	BSCLS-113	3(2+1)

Semester 6			
Clinical Parasitology & Mycology	Major-14	BSCLS-114	3(2+1)
Histopathology & Cytology	Major-15	BSCLS-115	3(2+1)
Chemical Pathology	Major-16	BSCLS-116	3(2+1)
Blood Banking & Blood Transfusion	Major-17	BSCLS-117	3(2+1)
Forensic Sciences	Major-18	BSCLS-118	3(2+1)
Bioinformatics & Public Health	Major-19	BSCLS-119	3(2+1)
Semester 7			
Immunology & Serology	Major-20	BSCLS-120	3(2+1)
Pharmacology & therapeutics	Major-21	BSCLS-121	3(2+1)
Molecular Biology	Major-22	BSCLS-122	3(2+1)
Clinical Pathology	Major-23	BSCLS-123	3(2+1)
Research Methodology	Major-24	BSCLS-124	3(2+1)
Antimicrobial Agents	Major-25	BSCLS-125	3(2+1)
Semester 8			
Research Project/Internship/Assignment	Major-26	BSCLS-126	0,6
Epidemiology & Biostatistics	Major-27	BSCLS-127	3(3+0)
Medical Bioethics	Major-28	BSCLS-128	3(3+0)
Infectious Disease Diagnostic Techniques	Major-29	BSCLS-129	3(2+1)
Business Development & Entrepreneurship	Major-30	BSCLS-130	3(3+0)

Faculty Members of Clinical Laboratory Sciences

Dr. Nain Tara Bukhari is the Head of the Department in Clinical Laboratory Sciences at Women University Swabi, Khyber Pakhtunkhwa, Pakistan. She got her PhD Degree from University of Karachi, Pakistan. Her areas of interest Clinical Microbiology. She has two years teaching and 10 years research and diagnostic experience in prestigious organizations like Agha Khan University and Hospital, Shoukat Khanum Cancer Hospitals, and Baqai Medical University. She **Won Big idea design competition for women empowerment in Teachers category in April 2022.** She Selected for Advance Training Course to be held in Malasia for Bio Risk Management by CRDF Global in 2016 and 2017. She also got travel award from CRDF Global to participate in ABSANZ 7th Annual General Meeting Conference held in Australia for poster presentation in Oct 2017. She has published many research papers in HEC recognized W, X and Y category journals. She has certification of conferences/workshops International and National level.



**Dr. Nain Tara
Bukhari
HoD**

She got her PhD from Chinese Academy of Agricultural Sciences. Her areas of research interest are **Viral epidemiology and epigenetics, Development of diagnostic assay, Construction of vaccine.** She has published 6 research papers in W, X and Y categories of HEC recognized journals. She got GSCAAS fully-funded scholarship for Ph.D. program. She has certification of conferences/ workshops of International and National level.



**Dr. Madiha Fatima
Assistant Professor**

She pursue her PhD degree in Microbiology from Kohat University of Science and Technology, Kohat, Pakistan. Her area of research interest is **Molecular & genetic epidemiology of infectious diseases and** Antibiotic resistance and virulence factor in bacteria. She has five years teaching and 2 years research and diagnostic experience in Public Health reference Laboratory, Khyber Medical University, Peshawar. She awarded **IRSIP** scholarship in 2018. She also worked as a Guest Researcher in University of Groningen, Netherland. She has 16 publications in W, X, and Y category of HEC recognized journals. She has certification of conferences/ workshops of International and National level.



**Dr. Iqbal Nisa
Assistant
Professor**

She is M. Phil qualified from COMSATS University Islamabad and BSc (Hons) MLT from KING-EDWARD MEDICAL UNIVERSITY, Lahore. she has highly profound teaching experience. She is passionate to provide quality education and to enhance individual capabilities. She has 5 years' experience of teaching to students of Allied Health Sciences and Technologies including Doctor of Physical Therapy, Medical Laboratory Technology, Medical Imaging Technology and Anesthesia Technology. She has 2 years of Clinical experience at Pathology Laboratory. She has supervised many Allied Health Sciences students for the completion of their research thesis for which the research area includes laboratory diagnostics, biochemical analysis, microbiology and survey studies.



**Miss
Shaista Jabeen
Lecturer**

Departmental Conferences & Workshops

