

VISION AND MISSION OF DUHS

Our Vision

To be a pre-eminent academic institution committed to changing and saving lives



Our Mission

Providing outstanding patient-centered education, training and clinical care informed by cutting-edge research and innovation generating and disseminating new knowledge

MESSAGE BY VICE CHANCELLOR



It is a great pleasure to share this message for the BS Forensic Science Program prospectus at Dow University of Health Sciences (DUHS), Karachi. It was established in 2004 with just three constituent colleges, DUHS has grown into one of Pakistan's most comprehensive health systems, with nearly 45 constituent and affiliated institutions. Recognized for its commitment to education, research, and healthcare innovation, DUHS's excellence is reflected in its QS World University Ranking (2021), where it proudly achieved a rank of 401-450—a testament to the dedication of our faculty in enhancing the student learning experience.

Over the years, DUHS has expanded its offerings in allied health and biomedical sciences including pharmacy, physical therapy, and nursing.

It is a privilege to introduce the **BS Forensic Science (BS-FSc.)** program at **Dow University of Health Sciences (DUHS)**—a pioneering initiative and the first comprehensive forensic science program in Sindh. This program is designed to equip students with advanced expertise in forensic techniques, critical thinking, and analytical skills, providing a balanced blend of theoretical knowledge and practical experience. Graduates will be well-prepared to contribute to criminal investigations, judicial processes, and public health, playing a vital role in strengthening Pakistan's legal system.

As the nation faces increasing challenges in crime prevention and justice delivery, this program fulfills a critical need for highly skilled forensic professionals who uphold scientific precision with ethical integrity. By enhancing forensic capabilities, it will ensure more accurate investigations, expedite judicial processes, and foster greater public trust in law enforcement.

I am confident that graduates of this program will exemplify the highest standards of professionalism and contribute meaningfully to both national and global advancements in forensic science. Their work will embody DUHS's mission of transforming lives through innovation, service, and a commitment to justice and public welfare.

Best wishes to the incoming students!

MESSAGE BY PROGRAM DIRECTOR BS- FORENSIC SCIENCE



It is with great pride that Dow University of Health Sciences (DUHS) introduces the Bachelor of Science in Forensic Science (BS-FSc.), the first comprehensive forensic science degree in Sindh. Designed to meet Pakistan's growing demand for skilled forensic professionals, this multidisciplinary program integrates biology, chemistry, digital forensics, and advanced forensic techniques, providing students with a strong scientific foundation for careers in forensic laboratories, law enforcement, and beyond.

At DUHS, students will gain hands-on experience through practical training, from analyzing simulated crime scenes to presenting evidence in courtroom settings. Access to purpose-built crime scene facilities and state-of-the-art laboratories ensures an immersive learning environment, equipping graduates to examine, interpret, and present forensic evidence precisely and confidently. Research is a cornerstone of the BS-FSc. program, where students engage in projects on DNA analysis, cybercrime, and AI-driven forensic tools, gaining exposure to advanced technologies in crime detection and evidence analysis. Collaborations with national and international experts will further enhance their research experience, fostering critical thinking and innovation. For those pursuing further academic growth, the program lays a strong foundation for graduate studies or specialized professional paths, with dedicated advisors providing guidance throughout their educational journey. Students will engage with forensic science societies and professional organizations in Pakistan and internationally, fostering academic excellence, innovation, and a strong community of future forensic professionals. If you are passionate about solving complex problems and fascinated by the science behind criminal investigations, this program offers a unique and rewarding path. We look forward to welcoming you to DUHS and guiding you on this exciting journey in forensic science.

Best regards,

INTRODUCTION OF BS- FORENSIC SCIENCE PROGRAM

The Bachelor of Science in Forensic Science program at Dow University of Health Sciences (DUHS) offers an innovative and multidisciplinary education, designed to meet the growing demand for skilled forensic experts in both national and international domains. This program integrates advanced scientific techniques with legal frameworks, preparing students to analyze crime scenes, interpret forensic evidence, and contribute to the judicial system. By combining theoretical knowledge with hands-on laboratory training, students develop expertise in fields such as DNA analysis, toxicology, fingerprint analysis, and digital forensics. With access to state-of-the-art facilities and guidance from experienced faculty, graduates of this program will be well-equipped to pursue careers in law enforcement agencies, forensic laboratories, and research institutions.

DUHS's commitment to academic excellence ensures that the BS Forensic Science program is aligned with modern advancements and industry standards. The curriculum emphasizes critical thinking, ethical practices, and professional integrity, fostering a strong foundation for lifelong learning and career growth. Through internships and collaborative projects, students gain real-world experience, enhancing their problem-solving skills and adaptability in high-pressure environments. This program not only addresses the region's need for forensic professionals but also positions DUHS as a leader in forensic education and research.

SCOPE OF FORENSIC SCIENCE IN PAKISTAN

The importance of forensics in Pakistan cannot be overstated. Pakistan's criminal figures are quite concerning. The lack of expert inquiry is one of the key issues.

Forensic science is one of the most important professions required in Pakistan to address the rising rate of criminal activity. The scope of forensic science in Pakistan is vast. Forensic science is a branch of science in which scientific methods and procedures are employed to analyze or investigate a specific subject according to legality and the law to provide adequate justice. Forensic science serves a critical function in any country where crime is prevalent.

Forensic scientists are concerned with the preservation and analysis of scientific evidence gathered at a crime scene for investigations. Experts in forensic science arrive at the crime scene as soon as possible to collect scientific evidence, which they subsequently evaluate in forensic labs. Basic Medical Sciences, Genetics/Molecular Biology, Law/Criminology, Chemistry, Information Technology, and Physics are all closely related to forensic science. Although it has a strong link to law and inquiry, it is essentially a type of applied medical science. A forensic expert must be well-versed in local criminal legislation. In many criminal cases, police, inquiry, and law enforcement authorities are unable to proceed without the assistance of forensic scientists.

Forensic scientists are in high demand nowadays. Primarily, this is a critical field of study.

More importantly, specialists are needed. The scope of forensic science in Pakistan is growing steadily. Universities and colleges are looking for scholars. Similarly, so is the industry.

There are a huge number of job opportunities for forensic science in Pakistan. Many investigation departments and agencies are running that recruit a large number of employees every year. A forensic science degree holder can easily apply as an investigation officer, laboratory technician, consultant, writer, criminal psychologist, public prosecutor, criminal lawyer, crime reporter, instructor in training institutes, NGO activist, etc. Forensic science is one of the highest-paying jobs in almost every country in the world.

PROGRAM DESCRIPTION OF BS FORENSIC SCIENCES

Eligibility Criteria :

- HSSC Pre-Medical or equivalent examination (e.g. A-Level, 12th grade etc) duly certified by IBCC with minimum 60% marks.
- Candidate's PRC & Domicile of Sindh.

SEAT ALLOCATION.

The BS Forensic Science program offers a total of **25 Seats** filled on merit.

1.4 PROGRAM EDUCATION OBJECTIVES (PEOs)

1. To provide a structured teaching and learning experience that combines strong theoretical foundations, practical training, and research-based investigations to address contemporary issues in forensic science.
2. To develop a knowledge and skill base aligned with employment opportunities in forensic science, related disciplines, and broader scientific fields, fostering adaptability across various career pathways.
3. To promote critical, analytical, and lateral thinking while cultivating an honest and rational approach to investigative science within forensic and legal contexts.
4. To instill professional ethics, respect for human rights, and an understanding of forensic science's role within the legal framework of government inquiries and criminal prosecutions.
5. To enable students to plan, execute, and critically evaluate forensic casework and laboratory investigations, emphasizing the significance of evidential results and advanced forensic techniques.
6. To inspire intellectual independence, teamwork, responsibility, and originality, equipping graduates to adapt to evolving technologies and to lead interdisciplinary collaborations in forensic science.
7. To prepare graduates to effectively communicate their scientific work, both orally and in writing, to diverse audiences, including legal professionals and the scientific community.
8. To support Pakistan's forensic science sector through innovative research, enhanced practices, and addressing challenges while preparing graduates to contribute to global advancements in the field.

1.5 CAREER PROSPECTS/OPPORTUNITY OF BS-FSC.

A graduate of Bachelor of Forensic Science is prepared for careers in:

1. **Crime Scene Investigation (CSI):** Roles in crime scene documentation, evidence collection, and forensic analysis for government and private agencies.
2. **Law Enforcement and Security Agencies:** Opportunities in Military Police, Armed Forces, and Police Training Colleges for forensic support in criminal investigations and training.
3. **Forensic Science Education:** Academic roles in colleges and universities, including teaching and curriculum development.
4. **National Database and Registration Authority (NADRA):** Roles in biometric verification, identity management, and fraud detection.
5. **Investigation Departments:** Positions in organizations such as FIA, NAB, and Cyber Security Units, specializing in digital forensics, financial crime investigations, and counter-terrorism.
6. **Judicial Support:** Research, analysis, and presentation of forensic evidence in courts, supporting legal teams and case evaluations.
7. **Specialized Forensic Laboratories:** Employment in chemical analysis, ballistics, toxicology, DNA molecular laboratories, and forensic pathology labs.
8. **Healthcare and Pharmaceutical Industry:** Roles in toxicology, drug testing, and analysis for regulatory compliance and research.
9. **Private Forensic Consulting:** Establishing independent forensic consulting firms for investigative and legal support services.
10. **International Organizations:** Opportunities with Interpol, UN agencies, and global forensic institutes in crime investigation and policy development.
11. **Tech-Forensics:** Careers in digital forensics, cybersecurity, and data recovery with tech companies and law enforcement.
12. **Environmental and Wildlife Forensics:** Roles in analyzing environmental crimes, wildlife trafficking, and ecological investigations.

1.6 FEE STRUCTURE.

FEE TYPE	BS- FORENSIC SCIENCE
Admission Fee (Once only)	45,000
Tuition Fee (Yearly)	200,000
Documentation Verification Charges (Once only)	2,500
Library Fee (Yearly)	10,000
Student Activity Fee (Yearly)	10,000

Transport Fee (Optional) Rs. 43,000

1.7 RULES FOR THE PAYMENT OF FEE

1. Fees of succeeding years (2nd Year to Final Year) are to be paid within ONE MONTH of issuance of fee vouchers or within the due date provided.
2. In case the fee for succeeding year (2nd Year to Final Year) is not submitted during the given specified time, late payment charges will be charged as follows:

First Month (After Lapse of First Month)	2.5%
Second Month	5%
Third Month	7.5%
Fourth Month	10%

After four months of non-payment, the seat is liable to be cancelled and student will not be allowed to appear in any examination

3. Fee of all categories shall be increased by 10% every year.
4. Fee deposited is refundable as per the Refund Policy guidelines of the DUHS.
5. Taxes will be applied as per the FBR and Government rules.
6. Hostel and Transport fee will be valid till the December of every year
7. Amounts stated in the fee vouchers are excluded of all Bank charges .
8. The Fee Structure may be revised by the university at any time during the course of the study, due to unavoidable circumstances
9. Associated fees will be charged as per fee structure.

1.8 CURRICULUM STRUCTURE

The **BS Forensic Science program at DUHS** is a comprehensive **four-year degree** spanning **eight semesters**. The program consists of **46 courses totaling 120 credit hours**, integrating advanced theoretical knowledge across various life science disciplines. It emphasizes a strong forensic focus through extensive hands-on practical exercises, equipping students with the skills required for real-world forensic investigations and analysis.

Categories	No. of Courses	Credit Hours
General Education Courses	13	35
Disciplinary/ Major	24	66
Interdisciplinary/ Minor	05	13
Research Projects	02	06
Electives	xx	xx
Total	44	120

- **Total Number of Credit Hours: 120**
- **Duration: 04 Years**
- **Number of Semesters: 08**
- **Semester Duration: 16-18 Weeks**
- **Number of Courses per Semester: 05-06**

1.9. SCHEME OF STUDY BS-FSC.

BS-FSc. 1st Year

1st Year, 1st Semester			1st Year, 2nd Semester		
Course Code	Subject	Cr. Hr.	Course Code	Subject	Cr. Hr.
	English I (Functional English) *	3		English II (Writing and Presentation Skills)*	3
	Quantitative Reasoning Mathematics and Statistics*	3		Pakistan Studies*	2
	Principles of Chemistry* Organic and Inorganic	3		Application of Information and Communication Technology*	3
	Biology*	3		Quantitative Reasoning Mathematics and Statistics -II*	3
	Physics*	3		Philosophy*/ Social Work	2
	Islamiyat / Ethics *	2		Entrepreneurship*	2
	Semester Cr. Hr.	17		Semester Cr. Hr.	15

BS-FSc. 2nd Year

2 nd Year, 3 rd Semester			2 nd year, 4 th Semester		
Course Code	Subject	Cr. Hr.	Course Code	Subject	Cr. Hr.
	English - III (Communication and writing skills) *	3		Human Physiology**	3
	Principles of Forensic Sciences**	2		Basic Pharmacology**	3
	Forensic Toxicology**	3		Forensic Pathology**	3
	Forensic Science in Courtroom **	1		Biosafety and Bioethics**	2
	Human Genetics**	3		Techniques in Molecular Biology **	4
	Molecular Biology **	3		Forensic Serology **	1
	Semester Cr. Hr.	15		Semester Cr. Hr.	16

BS-FSc. 3rd Year

3 rd Year, 5 st Semester			3 rd Year, 6 th Semester		
Course Code	Subject	Cr.Hr.	Course Code	Subject	Cr. Hr.
	Forensic DNA Typing**	3		Fundamental Forensic Techniques**	3
	Immunology **	3		Forensic analysis of Trace Evidence**	3
	Research Methodology **	3		Forensic Photography ***	2
	Introduction to biostatistics	3		Forensic Psychology***	3
	Microbial Forensics **	3		Forensic Analysis of Writing/Questioned Document Examination***	2
	Semester Cr. Hr.	15		Semester Cr. Hr.	13

BS-FSc. 4th Year

4 th Year, 7 th Semester			4 th Year, 8 th Semester	
Course code	Subject	Cr. Hr. Course Code	Subject	Cr. Hr.
	Digital Evidence Analysis/ Cybercrime**	4	Bioinformatics**	3
	Principles of Ballistics **	3	Forensic Anthropology**	3
	Forensic Entomology***	3	Forensic Odontology***	3
	Crime Scene Investigation**	2	DVI	2
	Project****	3	Project-I****	3
	Semester Cr. Hr.	15	Semester Cr. Hr.	14
General courses=35 **Major=66 *** Minor=13		****Project=06	**** Elective	

2. ASSESSMENT CRITERIA.

Examinations for the **BS Forensic Science program** are conducted on a semester basis through a centralized examination department. Assessments comprise both theoretical and practical components tailored to the specific course requirements. Additionally, internal evaluations are conducted by faculty members using pre-defined scoring criteria. Students must successfully complete all courses, including prerequisites from the preceding semester, to progress to the next semester. To qualify for the degree, students are required to pass all courses—both disciplinary and interdisciplinary—along with credit-hour-based capstone research projects and non-credit elective courses.

2.1 ELECTIVE COURSES.

- ✓ Crime scene investigation
- ✓ Forensic Photography
- ✓ Questioned Document
- ✓ Fingerprint analysis
- ✓ Chemical Laboratory
- ✓ Molecular Laboratory
- ✓ Ballistics Analysis
- ✓ Digital Forensic Department
- ✓ Forensic Anthropology
- ✓ Forensic Entomology



Join Us in Shaping the Future of Forensic Science!