ABASYN
UNIVERSITY
Passion to Design Futures

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AUIC

PROSPECTUS 2025-26

https://www.abasynisb.edu.pk/

Islamabad Campus Park Road, Chak Shahzad Islamabad, Pakistan.

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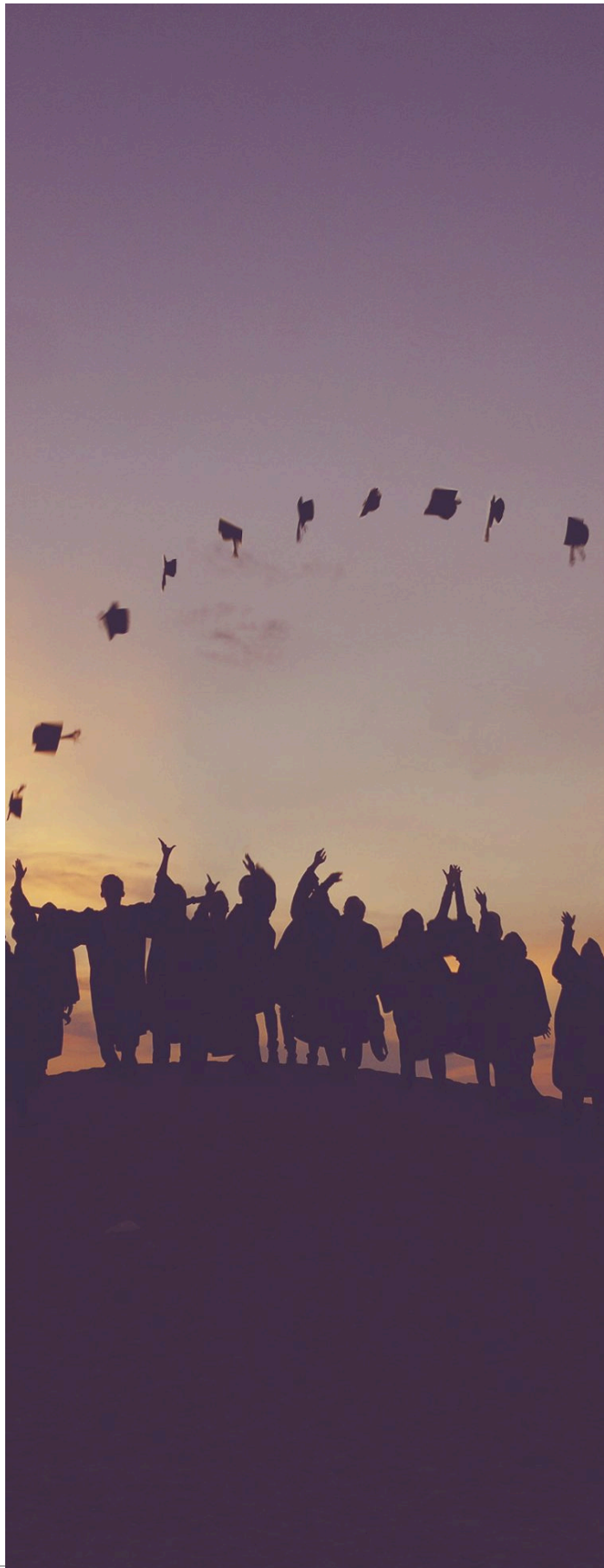
This prospectus presents a brief overview of all the academic programs offered at the Abasyn University, Islamabad Campus. The prospectus shows the overall structure, duration and fees of the academic programs. Candidates who wish to seek admission at Abasyn University are advised to read this prospectus carefully. For further details, candidates are advised to visit our campus, website or call our Admission Office at:

Islamabad Campus Park Road, Chak Shahzad,
Islamabad, Pakistan.
Email: admissions@abasynisb.edu.pk
Website: abasynisb.edu.pk
UAN: 051-111 222 796
Ph: 051-8438320 & 8438321
Cell No: 0300-918 9006, 0331-989 0066
Fax: 051-843 8325

Main Campus Peshawar
Ring Road (Charsadda Link),
Peshawar, Pakistan.
Email: admissions@abasyn.edu.pk
Website: abasyn.edu.pk
UAN: 091-111 222 796
Ph: 091-2247264 & 2582835
Cell No: 0323-9555847
Fax: 091-2248675







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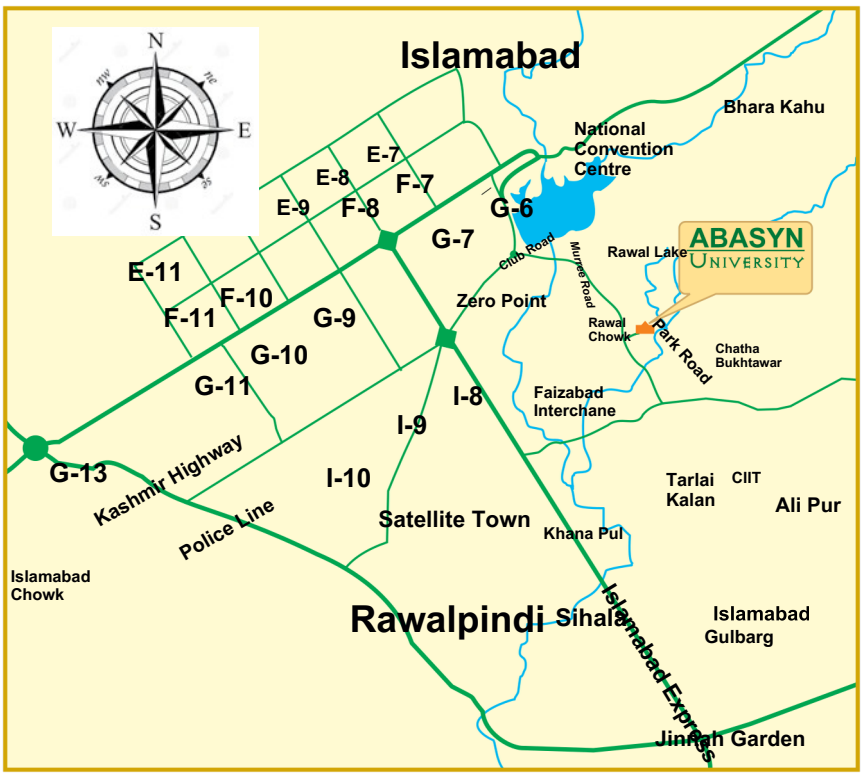


Message from the Chancellor

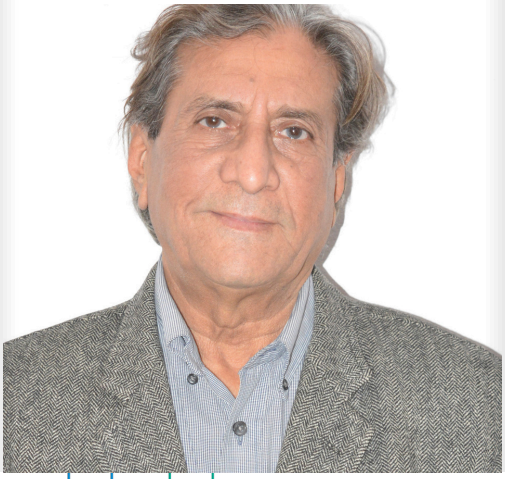
Education is the core value of a nation, and the function of an educational institution is not only to take care of an individual's academic growth but also to take charge of his/her personal, social, mental, psychological, and spiritual maturity for overall learning and transformation. Only an institution which takes care of all these dynamics can shape a true scholar and a true professional, and Abasyn University is one of its kind in this realm.

Abasyn University, established in 2007 through an Act of Provincial Assembly, has now emerged as a sustainable organization with the grace of Almighty and the committed efforts of the faculty and the management. Within a short span of time, the university has made a number of achievements including a thriving campus at Islamabad.

This is heartening to know that apart from excelling in academic standards,students of Abasyn University actively participate in diverse socio-cultural activities of high standards such as tree plantation, traffic education, blood donation, youth awareness, and community service campaigns, drives, and projects to nurture exceptional values of social importance. The University, energized by its distinguished faculty and strengthened by its brilliant students, now stands in the highest echelons of education in the country and strives to forge new paths for a brighter tomorrow of Pakistan.

I pray to Allah to crown our endeavours with success!

Dr. Muhammad Imran Ullah



Message from the

Head of Campus

Transformation from school and college set-up into a university marks the beginning of a focused yet ceaseless endeavor. The decision on choice of a university requires great care in the light of aptitude, relevance, scope, and career prospects. I find it heartening to fill you in on the academic and professional culture of the Abasyn University that promises a balanced combine of attributes one may consider in the choice of seat for higher and professional education. At Abasyn one finds all the three stakeholders—management, faculty, and students—engaged in a ceaseless endeavour to set new standards and seek new horizons in higher education and to produce professionals with a new orientation who can stimulate and lead the industrial transformation of the country.

Abasyn University is a compact, close-knit community of highly skilled andambitious professionals with student-centric teaching approach, congenial atmosphere, objective-based learning environment and supportive arrangements for co-curricular and extracurricular activities which motivatestudents to learn and grow in academics. At both the campuses (Peshawar and Islamabad), you will find the academic staff with substantial industry, research and teaching experience. The curriculum of all academic disciplines is designed in collaboration with particular industry advisers to be at parwith the current global requirements. Abasyn is a forward-looking University working in the new economic environment of the early twenty-first century with an eye for globalization, innovation and entrepreneurship as the key features of this new environment. Keeping this in view, Abasyn integrates emerging international issues/experiences/ standards into its degree programs wherever required and prioritizes the grooming and training of mind over cramming it with facts and information. The University believes in expanding the intellectual horizons of its students rather than merely focusing on their technical skills. The management and faculty strive to imbibe in the students the desire to question established notions, improve upon cherished traditions, and broaden the scope of social and academic values.

Abasyn University has a vision based on five parameters – quality teaching, research, internationalization, industrial liaison, and career & job placement. Following this vision the university has also signed MoUs with a number of Turkish Universities to extend its academic circle to European countries.

Graduating from Abasyn means growing curiosity, innovation, creativity, and excellence. For we not only emphasize on critical thinking and intellectual analysis but also nurture academic excellence, promote social inclusiveness, foster a sense of civility, protect academic freedom, cultivate individual integrity, instill academic honesty, advocate accountability, encourage ethical standards, allow enriching learning opportunities, and try to direct you to a gratifying career by teaching you to live by example.

I hope you enjoy your studies at the University.

Welcome to

Abasyn University

We offer:

- Strong student support facilities
- Accredited and approved academic programs
- Lively and stimulating environment for growth
- State-of-the-art lecture rooms, laboratories, library and IT facilities
- World-class research facilities and collaboration with partner universities
- Resources to help develop study skills and produce original work
- Faculty involvement in industrial research

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Abasyn University

Abasyn University Peshawar is chartered by the Government of Khyber Pakhtunkhwa (KPK) and recognized by the Higher Education Commission (HEC), Pakistan. Abasyn University was the only University in KPK which was awarded category 'W' at the inception which was the highest category to be awarded to any institution in the old ranking system by HEC. By the grace of Allah and the support of sponsors and staff, HEC has upgraded category 'W' to 'W3' in the new ranking system. Abasyn University offers degree programs in various disciplines including Engineering, Computing, Business Administration, Pharmacy, Life Sciences, Rehabilitation & Health Scieces, Education and Technology. National Computing Education Accreditation Council (NCEAC), HEC has accredited BS in Computer Science and BS in Software Engineering programs offered by the University. The University also offers BE in Electrical Engineering and BE in Civil Engineering programs accredited by the Pakistan Engineering Council (PEC). The University has been accredited by the Pharmacy Council of Pakistan (PCP) to run Pharm-D program.

Abasyn University

Islamabad Campus

HEC granted NOC via letter No. 16-64/HEC/A&A/2010/401 to Abasyn University to open its campus at Islamabad. The University has established state of art facilities in Chak Shahzad Islamabad for the campus. Highly qualified teaching and non teaching staff have been hired. The campus has also established fully equipped labs with state of the art technologies and tools. The campus has also developed a well stocked library which has access to digital research databases, e-journals, e-books and e-reports.

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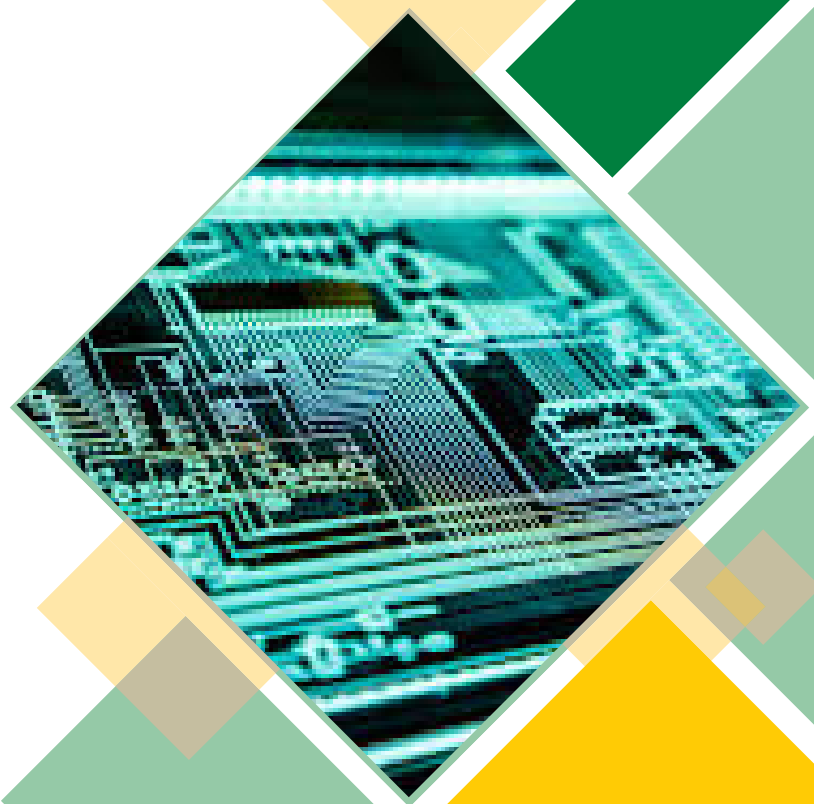
UNDERGRADUATE

PROGRAMS



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Department of Computing

The digital age has transformed the world and the workforce. As a result, computing related disciplines and technologies have become an essential part of our daily life activities. Keeping in view the digital transformation and an increasing demand of computing professionals in 21st century, the Department of Computing was established in 2012 with a vision of implanting a metamorphic thrust in Computer Science and Software Engineering, endorsing excellence in education, research and creativity. The department has a well-developed infrastructure including spacious lecture halls equipped with the modern audio-visual supports and well-resourced computer labs. Highly qualified and competent faculty serves the department and guides the students to achieve their educational goals. The academic progress of the students is monitored throughout the degree program with a viewpoint of continuous improvement to achieve an ultimate goal of converting them into graduates having in-depth knowledge and skills coupled with a sense of professional and social responsibility.

BS Computer Science (BSCS)

The mission of the Bachelor of Computer Science is to provide quality education and equip students with technical and transferable skills that prepare socially and ethically responsible computer science graduates committed to professional development and growth

Program Educational Objectives

The PEOs are focused on to produce BSCS graduates who:

1. Academic Education :
Completion of an accredited program of study designed to prepare graduates as computing professionals.

2.Knowledge for Solving Computing Problems:
Apply knowledge of computing fundamentals, knowledge of a computing specialization, and mathematics, science, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.

3.Problem Analysis:
Identity, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.

5.Technical Proficiency:
Demonstrate in-depth knowledge and technical skills to be a successful computer professional in diverse career paths.

4.Technical Proficiency:
Demonstrate in-depth knowledge and technical skills to be a successful computer professional in diverse career paths.

6.Ethics and Social Responsibility:
Practice IT profession in an ethical, moral, and socially responsible manner.

7.Lifelong Learning:
Engage in life-long learning, research, or graduate professional studies to enhance their professional and technical expertise.

8.Communication and Teamwork:
Demonstrate communication and interpersonal skills and function as an individual or team member.

environmental considerations

5. Modern Tool Usage: Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations

6. Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams and in multi-disciplinary settings

7. Communication: Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions

8. Computing Professionalism and Society: Understand and assess societal, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice

9. Ethics: Understand and commit to professional ethics, responsibilities, and norms of professional computing practice

10. Life-long Learning: Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional

Semester Plan

Semester I

Code	Course Title	CrHrs	Pre-Req.
CS106	Introduction to Computer Programming	3+1	none
CS100	Introduction to Computing	2+1	none
MT112	Calculus-I	3+0	none
SS104	English-I	3+0	none
NS201	Applied Physics	2+1	none
SS108	Islamic Studies	2+0	none
	Total	18	

Semester II

Code	Course Title	CrHrs	Pre-Req.
CS200	Object Oriented Programming	3+1	CS106
MT114	Calculus-II	3+0	MT112
SS203	English-II	3+0	SS104
EE200	Digital Logic Design	2+1	NS201
SE242	Software Engineering	3+0	none
	Total	16	

Semester III

Code	Course Title	CrHrs	Pre-Req.
CS251	Computer Organization and Assembly Language	2+1	EE200
SS118	Pakistan Studies	2+0	none
CS210	Data Structures and Algorithms	3+1	CS200
MT221	Linear Algebra	3+0	MT114
MGxxx	Social Science Elective-I	3+0	none
MGxxx	Social Science Elective-II	2+0	none
	Total	17	

Semester IV

Code	Course Title	CrHrs	Pre-Req.
CS242	Computer Architecture Database	3+0	CS251
CS385	Management Systems Design and	3+1	CS210
CS304	Analysis of Algorithms	3+0	CS210
CSxxx	Domain Elective-1	3+0	none
CSxxx	Domain Elective-2	3+0	none
	Total	16	

Semester V

Code	Course Title	CrHrs	Pre-Req.
CSxxx	Advance Database Management System	2+1	CS385
CS432	Human Computer Interaction	3+0	SE242
CS313	Operating System Concepts	2+1	CS251
CS310	Theory of Automata	3+0	none
MT201	Discrete Structures	3+0	MT221
CSxxx	Domain Elective-3	3+0	none
	Total	18	

Semester VI

Code	Course Title	CrHrs	Pre-Req.
SS211	English-III	3+0	SS203
MT301	Statistics and Probability	3+0	none
CS401	Compiler Construction	2+1	CS310
CSxxx	Domain Elective-4	3+0	none
CS321	Computer Networks	2+1	none
CSxxx	Professional Practices	2+0	none
	Total	17	

Semester VII

Code	Course Title	CrHrs	Pre-Req.
SSxxx	Civic and Community	2+0	none
CSxxx	Engagement	3+0	none
CSxxx	Domain Elective-5	3+0	none
CS307	Domain Elective-6	2+1	MT201
CS445	Artificial Intelligence	3+0	none
CS499	Parallel and Distributed Computing FYP-1	0+3	none
	Total	17	

Semester VIII

Code	Course Title	CrHrs	Pre-Req.
CS499	FYP-II	0+3	CS499
CS390	Information Security	2+1	CS321
MG404	Entrepreneurship	2+0	none
CSxxx	Domain Elective-7	3+0	none
	Total	12	
	Degree Total	**130**	

List of Electives

Code	Title	CrHrs
CS315	Data Warehousing	3
CS316	Data Mining	3
CS317	Object Oriented Database Systems	3
CS338	Management Information System	3
CS433	Graph Databases	3
CS407	e-Commerce/Business CS217	3
Visual Programming		3
CS375	Mobile Application Development	3
CS428	Network Security and Cryptography	3
CS319	Network Simulation	3
CS463	Artificial Neural Network	3
CS432	Human Computer Interaction	3

Code	Title	CrHrs
CS208	Modern Programming Languages	3
CS334	Big-Data Processing	3
CS335	Cloud Computing	3
CS424	Machine Learning	3
CS411	Computer Vision	3
CS412	Natural Language Processing	3
CS413	Web Engineering	3
CS414	Semantic Web	3
CS421	Web Security	3
CS221	Web Programming Language	3
CS494	Special Topics in Computer Science	3
CS443	Digital Image Processing	3

BS Software Engineering (BSSE)

The mission of the Bachelor of Software Engineering is to provide quality education and equip students with technical and transferable skills that prepare socially and ethically responsible software engineering graduates committed to professional development and growth.

Program Education Objectives

The PEOs are focused on to produce BSCS graduates who:

1. Demonstrate in-depth knowledge and technical skills to be a successful computer science professional in diverse career paths.
2. Demonstrate communication and interpersonal skills and function as an individual or team member.
3. Practice IT profession in an ethical, moral, and socially responsible manner.
4. Engage in life-long learning, research, or professional development to enhance their professional and technical expertise as a graduate.

Program Learning Outcomes

By the time of graduation, the program enables students to:

1. Academic Education: Completion of an accredited program of study designed to prepare graduates as computing professionals

2. Knowledge for Solving Computing Problems: Apply knowledge of computing fundamentals, knowledge of a computing specialization, and mathematics, science, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements

3. Problem Analysis: Identity, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines

4. Design/ Development of Solutions: Design and evaluate solutions for complex computing problems, and design and or evaluate systems, components, processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations

5. Modern Tool Usage: Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations

6. Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams and in multi-disciplinary settings

7. Communication: Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions

8. Computing Professionalism and Society: Understand and assess societal, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice

9. Ethics: Understand and commit to professional ethics, responsibilities, and norms of professional computing practice

10. Life-long Learning: Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional

Semester plan

Semester I

Code	Course Title	CrHrs	Pre-Req.
CS106	Introduction to Computer Programming	3+1	none
CS100	Introduction to Computing	2+1	none
MT112	Calculus-I	3+0	none
SS104	English-I	3+0	none
NS201	Applied Physics	2+1	none
SS108	Islamic Studies	2+0	none
	Total	18	

Semester II

Code	Course Title	CrHrs	Pre-Req.
CS200	Object Oriented Programming	3+1	CS106
MT114	Calculus-II	3+0	MT112
SS203	English-II	3+0	SS104
EE200	Digital Logic Design	2+1	NS201
SE242	Software Engineering	3+0	none
	Total	16	

Semester III

Code	Course Title	CrHrs	Pre-Req.
SS118	Pakistan Studies	2+0	none
SE253	Software Requirements Engineering	3+0	SE242
CS210	Data Structures and Algorithms	3+1	CS200
MT221	Linear Algebra	3+0	MT114
MGxxx	Social Science Elective-I	3+0	none
CS251	Computer Organization and Assembly Language	2+1	EE200
	Total	17	

Semester IV

Code	Course Title	CrHrs	Pre-Req.
SE317	Software Design & Architecture	2+1	SE253
MGxxx	Social Science Elective-II	2+0	none
CS385	Database Management Systems	3+1	CS210
CSxxx	Domain Elective-1	3+0	none
CS304	Design and Analysis of Algorithms	3+0	CS210
	Total	16	

Semester V

Code	Course Title	CrHrs	Pre-Req.
CS432	Human Computer Interaction	3+0	SE242
SE350	Software Construction and Development	2+1	SE317
SE321	Software Quality Engineering	3+0	SE242
CSxxx	Domain Elective-2	3+0	none
MT201	Discrete Structures	3+0	MT221
CS313	Operating System Concepts	2+1	CS251
	Total	18	

Semester VI

Code	Course Title	CrHrs	Pre-Req.
SS211	English-III	3+0	SS203
MT301	Statistics and Probability Domain	3+0	none
CSxxx	Elective-3 Domain	3+0	none
CSxxx	Elective-4	3+0	none
CS321	Computer Networks	2+1	none
CSxxx	Professional Practices	2+0	none
	Total	17	

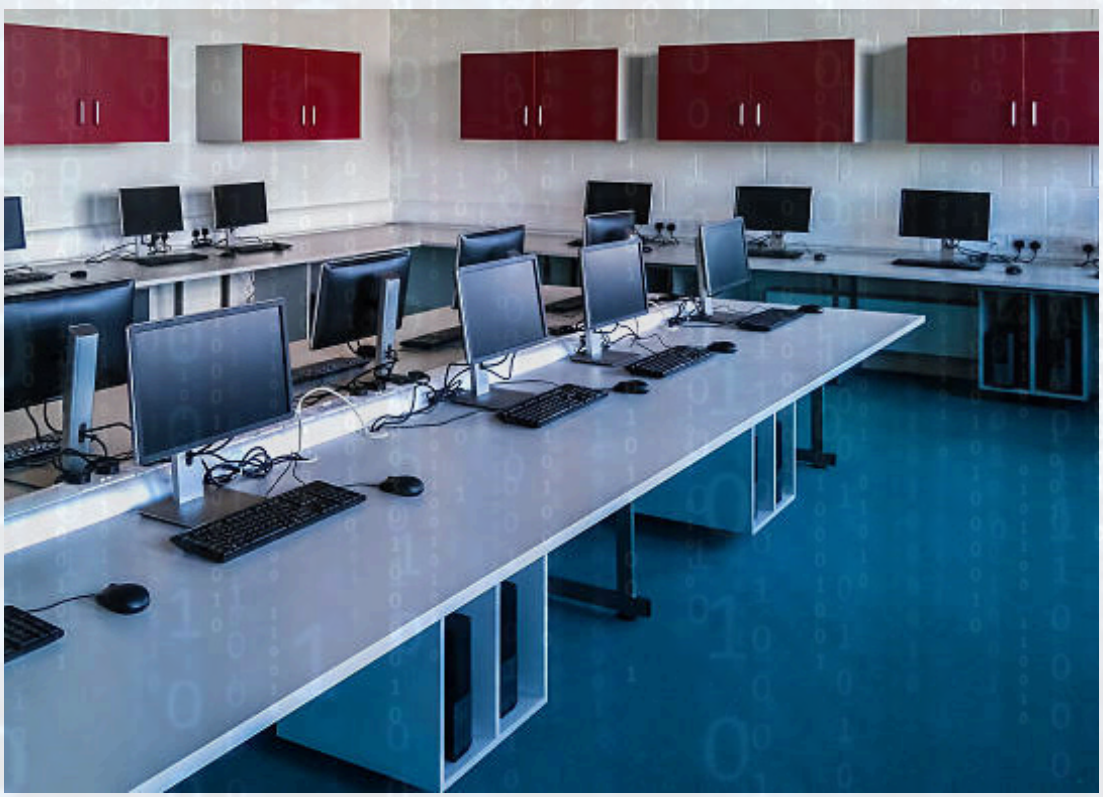
Semester VIII

Code	Course Title	CrHrs	Pre-Req.
CS499	FYP-II	0+3	CS499
CS390	Information Security	2+1	CS321
MG404	Entrepreneurship	2+0	none
CSxxx	Domain Elective-7	3+0	none
	Total	11	
	Degree Total	**130**	

List of Elective Courses

Code	Title	CrHrs
SE401	Secure Software Development	3
SE426	Software Testing	3
SE300	Object Oriented Software Engineering	3
SE401	Software Metrics	3
SE450	Design Patterns	3
CS421	Web Security	3
CS309	Distributed Database Systems	3
CS315	Data Warehousing& Data Mining	3
CS221	Web Programming Language	3

Code	Title	CrHrs
CS217	Visual Programming	3
CS375	Mobile Application Development	3
CS443	Digital Image Processing	3
CS334	Big-Data Analytics	3
CS424	Machine Learning	3
CS412	Natural Language Processing	3
CS208	Modern Programming Language	3
CS463	Artificial Neural Network	3
CS494	Special Topics in Software Engineering	3



BS Cyber Security

Program Overview

The Department of Computing offers a 4-year BS Cyber Security program, duly accredited by the National Computing Education and Accreditation Council (NCEAC). The department follows the latest HEC and NCEAC-approved curriculum. The curriculum provides a solid foundation in the discipline and equips students with the knowledge and skills required to practice as quality computing professionals.

Along with theoretical knowledge, the curriculum is coupled with practical work that enables students to gain practical experience in analyzing and solving real-world scenarios. As part of training, the curriculum facilitates internships to provide students with real-world problem-solving experience. BS Cy Sec graduates find positions in the software industry as full-stack programmers, DevOps, network administrators, and quality assurance professionals.

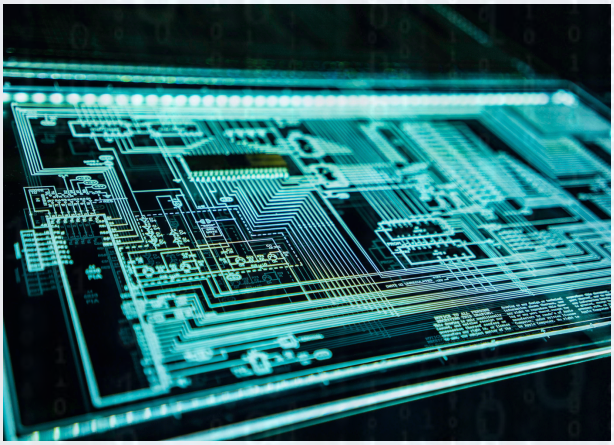
Program Mission

The mission of the Bachelor of Cyber Security is to provide quality education and equip students with technical and transferable skills that prepare socially and ethically responsible Cyber Security graduates committed to professional development and growth.

Program Educational Objectives (PEOs)

Program Educational Objectives (PEOs) are the attributes and abilities that graduates are expected to demonstrate within a few years after graduation. The PEOs are a direct translation of the program mission and are derived involving all stakeholders, aligned with University and Institute missions. The Department of Computing has defined and established its PEOs, keeping in view the desirable attributes of our graduates.

The Program Educational Objectives (PEOs) are focused on producing BS Cy Sec graduates who are:



Semester I

Code	Course Title	Cr.Hr	Pre-Req.
CS106	Introduction to Computer Programming	3+1	None
CS100	Introduction to Computing	2+1	None
MT112	Calculus-I	3+0	None
SS104	English-I	3+0	None
NS201	Applied Physics	2+1	None
SS108	Islamic Studies	2+0	None
	Total	18	

Semester II

Code	Course Title	Cr.Hr	Pre-Req.
CS200	Object Oriented Programming	3+1	CS106
MT114	Calculus-II	3+0	MT112
SS203	English-II	3+0	SS104
EE200	Digital Logic Desing	2+1	NS201
CS118	Artificial Intelligence	2+1	None
SS118	Pak Studies	2+0	None
	Total	18	

Semester III

Code	Course Title	Cr.Hr	Pre-Req.
CS251	Computer Organization and Assembly Language	2+1	EE200
CS210	Data Structures and Algorithms	3+1	CS200
MT221	Linear Algebra	3+0	MT114
CSxxx	Domain Elective-I (Web Engineering)	3+0	None
MGxxx	Elective Supporting-I (Fund. of Accounting)	3+0	None
	Total	16	

Semester IV

Code	Course Title	Cr.Hr	Pre-Req.
CS304	Design and Analysis of Algorithms	3+0	CS210
MT201	Discrete Structures	3+0	MT221
CS385	Database Management Systems	3+1	CS210
CS2xx	Domain Core-1 Cyber Security	3+0	None
CSxxx	Domain Elective-2 (Web Programming Lang.)	3+0	None
	Total	**16**	

Semester V

Code	Course Title	Cr.Hr	Pre-Req.
CS313	Operating System Concepts	2+1	CS251
CS4xx	Domain Core-2 Network Security	3+0	None
CS3xx	Domain Core-3 Information Assurance	3+0	None
CSxxx	Domain Elective-3 (Modern Programming Lang.)	3+0	None
CSxxx	Domain Elective-4 (Wireless and Mobile Security)	3+0	None
SS218	Introduction to Psychology	2+0	None
	Total	17	

Semester VI

Code	Course Title	Cr.Hr	Pre-Req.
SS211	English-III	3+0	SS203
MT301	Probability & Statistics	3+0	None
CS321	Computer Networks	2+1	None
CS307	Artificial Intelligence	2+1	MT201
CS4xx	Domain Core-4 (Digital Forensics)	2+1	None
CSxxx	Domain Elective-5 (Mobile Application Develop.)	3+0	None
	Total	17	

Semester VII

Code	Course Title	Cr.Hr	Pre-Req.
SS401	Research Methodology & Professional Ethics Domain	2+0	None
CS4xx	Core-5 (Secure Software Design and Development)	3+0	None
CS4xx	Domain Core-6 (Parallel and Distributed Computing)	3+0	None
CSxxx	Domain Elective-6 (Cloud Computing & Services)	3+0	None
CS499	Final Year Project - I	0+3	None
	Total	14	

Semester VIII

Code	Course Title	Cr.Hr	Pre-Req.
CS390	Information Security	2+1	None
MG403	Entrepreneurship Domain	2+0	None
CSxxx	Elective-7 (Cyber Law & Cyber Crime Cyber Warfare	3+0	None
SSxxx	Civics and Community Engagement	2+0	None
CS499	Final Year Project - II	0+3	None
	Total	13	
	Total Criedit hours	**129**	

BS Data Science

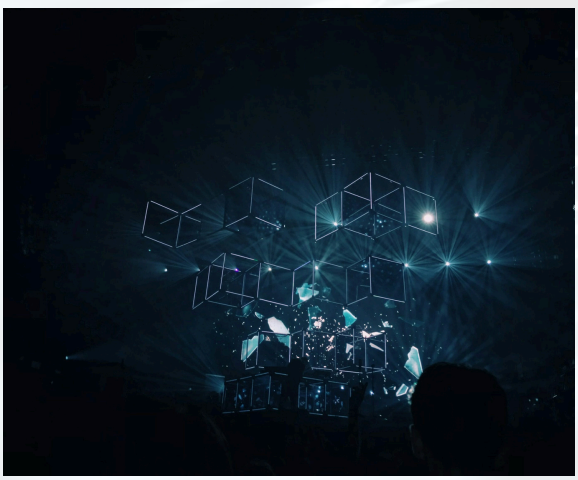
Program Overview

The Department of Computing offers a 4-year BS Data Science program, duly accredited by the National Computing Education and Accreditation Council (NCEAC). The department follows the latest HEC and NCEAC-approved curriculum. The curriculum provides a solid foundation in the discipline and equips students with the knowledge and skills required to practice as quality computing professionals.

Along with theoretical knowledge, the curriculum is coupled with practical work that enables students to gain practical experience in analyzing and solving real-world scenarios. As part of training, the curriculum facilitates internships to provide students with real-world problem-solving experience. BS DS graduates find positions in the software industry as full-stack programmers, DevOps, network administrators, and quality assurance professionals.

Program Mission

The mission of the Bachelor of Data Science is to provide quality education and equip students with technical and transferable skills that prepare socially and ethically responsible Data Science graduates committed to professional development and growth.



Program Educational Objectives (PEOs)

Program Educational Objectives (PEOs) are the attributes and abilities that graduates are expected to demonstrate within a few years after graduation. The PEOs are a direct translation of the program mission and are derived involving all stakeholders, aligned with University and Institute missions. The Department of Computing has defined and established its PEOs, keeping in view the desirable attributes of our graduates.

The Program Educational Objectives (PEOs) are focused on producing BS DS graduates who are:

Semester I

Code	Course Title	Cr.Hr	Pre-Req.
CS106	Introduction to Computer Programming	3+1	None
CS100	Introduction to Computing	2+1	None
MT112	Calculus-I	3+0	None
SS104	English-I	3+0	None
NS201	Applied Physics	2+1	None
SS108	Islamic Studies	2+0	None
	Total	**18**	

Semester II

Code	Course Title	Cr.Hr	Pre-Req.
CS200	Object Oriented Programming	3+1	CS106
MT114	Calculus-II	3+0	MT112
SS203	English-II	3+0	SS104
EE200	Digital Logic Desing	2+1	NS201
CS118	Artificial Intelligence	2+1	None
SS118	Pak Studies	2+0	None
	Total	**18**	

Semester III

Code	Course Title	Cr.Hr	Pre-Req.
CS251	Computer Organization & Assembly Language	2+1	EE200
CS210	Data Structures & Algorithms	3+1	CS200
MT221	Linear Algebra	3+0	MT112
CS2xx	Domain Core-1 (Introduction to Data Science)	2+1	None
SE242	Software Engineering	3+0	None
	Total	**16**	

Semester IV

Code	Course Title	Cr.Hr	Pre-Req.
CS304	Design and Analysis of Algorithms	3+0	CS210
MT201	Discrete Structures	3+0	None
CS385	Database Management Systems	3+1	None
CS321	Computer Networks	2+1	None
CS3xx	Domain Elective 1 (Machine Learning)	2+1	None
	Total	**16**	

Semester V

Code	Course Title	Cr.Hr	Pre-Req.
CS313	Operating Systems Concepts	2+1	None
CS3xx	Domain Elective 2 Artificial Neural Networks & Deep Learning	2+1	None
CS3xx	Domain Elective 3 (Platforms & Architectures for Data Science)	2+1	None
CS3xx	Domain Core 2 (Data Visualization)	3+0	None
CS3xx	Domain Elective 4 (Theory of Automata)	2+1	None
SSxxx	Elective Supporting -1 (Fundamentals of Accounting)	3+0	None
	Total	**18**	

Semester VI

Code	Course Title	Cr.Hr	Pre-Req.
SS211	English-III	3+0	SS203
MT301	Probability & Statistics	3+0	None
CS3xx	Domain Core 3 (Data Mining)	2+1	None
CS3xx	Domain Core 4 (Parallel & Distributed Computing)	2+1	None
CS3xx	Domain Elective 5 (Big Data Analytics)	3+0	None
CS3xx	Domain Elective 6 (Mobile Application Development)	3+0	None
	Total	**18**	

Semester VII

Code	Course Title	Cr.Hr	Pre-Req.
CS390	Research Methodology & Professional Ethics	2+1	SS203
CS4xx	Information Security	2+1	None
CS3xx	Domain Core 5 (Advanced Statistics)	2+1	None
CS499	Domain Elective 7 (Topics in Data	2+1	None
CS499	Final Year Project - I	0+3	None
			None
	Total	**14**	

Semester VIII

Code	Course Title	Cr.Hr	Pre-Req.
MG403	Entrepreneurship	2+0	None
SS218	Introduction to Psychology	2+0	None
CS4xx	Domain Core 6 (Data Warehousing & Business Intelligence)	3+0	None
SSxxx	Civics and Community Engagement	2+0	None
CS499	Final Year Project - II	0+3	CS499
	Total	**18**	
	Total Credit Hours	**136**	

BS Artificial Intelligence (BSAI)

The Department of Computing offers a 4-year BSAI program that follows a skill- based curriculum accredited by the National Computing Education and Accreditation Council (NCEAC). This curriculum focuses on providing students with practical skills and knowledge required to excel as AI

professionals in today's rapidly evolving technological landscape.

The BSAI program integrates theoretical

foundations with hands-on

applications,
allowing students to develop a robust skill set. The curriculum emphasizes the acquisition of practical skills that are directly applicable to real-world scenarios. Through a variety of projects and practical assignments, students gain experience in analyzing and solving complex problems using AI techniques.

To further enhance practical learning, the curriculum facilitates internships, enabling students to gain firsthand experience in applying AI methodologies to tackle real-world challenges. This experiential learning opportunity enhances their understanding of industry practices and strengthens their skill set.

Eligibility Criteria:
The minimum requirements for admission in an undergraduate degree program in Computer Science are as follows:

1.At least 50% marks in Intermediate (HSSC) examination with Mathematics or equivalent qualification with Mathematics certified by IBCC.

2.At least 50% marks in Intermediate (HSSC) examination with pre-Medical or equivalent qualification certified by IBCC.

a.Deficiency: Students with pre-medical must have to pass deficiency courses of Mathematics of 6 credit hours in first two semesters.At least 50% marks in Intermediate (HSSC) examination with Mathematics or equivalent qualification with Mathematics certified by IBCC.

Program Educational Objectives (PEOs):

The Program Educational Objectives (PEOs) are focused on to produce BSAI graduates who:

Demonstrate in-depth knowledge and technical skills to be a successful artificial intelligence professional in diverse career paths.

Demonstrate communication and interpersonal skills and function as an individual or team member.

Practice IT profession in an ethical, moral, and socially responsible manner.

Engage in life-long learning, graduate studies, research, or professional development to enhance their professional and technical expertise.

Program Learning Outcomes

The Program Learning Outcomes (PLOs) broadly describe the knowledge, skills and behaviors the students acquire in their program of study that are intended to foster the achievement of Program Educational Objectives (PEOs). By the time of graduation, the program enables students to:

1.Academic Education:
Completion of an accredited program of study designed to prepare graduates as computing professionals.

2.Knowledge for Solving Computing Problems: Apply knowledge of computing fundamentals, knowledge of a computing specialization, and mathematics, science, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.

3.Problem Analysis: Identity, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.

4.Design/Development of Solutions: Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

5.Modern Tool Usage: Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.

6.Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams and in multi-disciplinary settings.

7.Communication: Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.

8.Computing Professionalism and Society: Understand and assess societal, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice.

9.Ethics: Understand and commit to professional ethics, responsibilities, and norms of professional computing practice.

10.Life-long Learning: Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional.

Semester I

Code	Course Title	Cr.Hr	Pre-Req.
CS106	Introduction to Computer Programming	3+1	None
CS100	Introduction to Computing	2+1	None
MT112	Calculus-I	3+0	None
SS104	English-I	3+0	None
NS201	Applied Physics	2+1	None
SS108	Islamic Studies	2+0	None
	Total	18	

Semester II

Code	Course Title	Cr.Hr	Pre-Req.
CS200	Object Oriented Programming	3+1	CS106
MT114	Calculus-II	3+0	MT112
SS203	English-II	3+0	SS104
EE200	Digital Logic Desing	2+1	NS201
CS118	Artificial Intelligence	2+1	None
SS118	Pak Studies	2+0	None
	Total	18	

Semester III

Code	Course Title	Cr.Hr	Pre-Req.
CS321	Computer Networks	2+1	EE200
CS210	Data Structures & Algorithms	3+1	CS200
MT221	Linear Algebra	3+0	MT112
CS2xx	Domain Core 1 (Programming for AI)	2+1	None
SE242	Software Engineering	3+0	None
	Total	16	

Semester IV

Code	Course Title	Cr.Hr	Pre-Req.
CS251	Computer Organization & Assembly Language	2+1	EE200
CS304	Design and Analysis of Algorithms	3+0	CS210
SSxxx	SS-Elective-I	2+0	None
MT201	Discrete Structures	3+0	None
CS385	Database Management Systems	3+1	None
CS2xx	Domain Core 2 (Machine Learning)	2+1	None
	Total	18	

Semester V

Code	Course Title	Cr.Hr	Pre-Req.
CS313	Operating Systems Concepts	2+1	None
CS3xx	Domain Core 3 (Artificial Neural Networks & Deep Learning)	2+1	None
CS3xx	Domain Core 4 (Knowledge Representation & Reasoning)	2+1	None
CS3xx	Domain Elective 1	3+0	None
CS3xx	Domain Elective 2	2+1	None
MG100	Elective Supporting Course (Fundamentals of Accounting)	3+0	None
	Total	18	

Semester VI

Code	Course Title	Cr.Hr	Pre-Req.
SS211	English-III	3+0	SS203
MT301	Probability & Statistics	3+0	None
CS3xx	Domain Core 5 (Computer Vision)	2+1	None
CS3xx	Domain Core 6 (Parallel & Distributed Computing)	2+1	None
CS3xx	Domain Elective 3	--	None
CS3xx	Domain Elective 4	--	None
	Total	18	

Semester VII

Code	Course Title	Cr.Hr	Pre-Req.
CS390	Information Security	2+1	None
CS3xx	Domain Elective 5	--	None
CS3xx	Domain Elective 6	--	None
CS499	Final Year Project - I	0+3	None
			None
			None
	Total	14	

Semester VIII

Code	Course Title	Cr.Hr	Pre-Req.
MG403	Entrepreneurship	2+0	None
GE4xx	Arts & Humanities (Professional Practices)	2+0	None
GE4xx	Civics and Community Engagement	2+0	None
CS4xx	Domain Elective 7	--	None
CS499	Final Year Project - II	0+3	CS499
	Total	18	
	Total Credit Hours	**136**	

Department of Civil Engineering

The BECE is a 4 years (8 semesters) program. The program is designed and developed along the modern lines which are tailored to impart and strengthen the students' knowledge in Civil Engineering and its related specialties. The education process at the department is based on Outcome Based Education (OBE) system which is focused at achieving specified outcomes in terms of individual student's learning as specified in Washington Accord. The department offers BE Civil Engineering Program which is accredited by Pakistan Engineering Council (PEC) under Outcome Based Education (OBE) system. The BECE program is designed to produce quality professional engineers with abilities to design, manage and operate civil engineering projects. The program effectively provides a strong foundation for those wishing to pursue a career in civil engineering through a diverse range of theoretical skills and practical experiences. The program is based on solid foundations of mathematics and sciences followed by hands on training in well-equipped labs augmented by industrial visits and study tours. BECE program envisages extensive outdoor training in engineering surveying in the field and camp. On job internship training is also hallmark of this program.

BE Civil Engineering (BECE)

The BECE is a 4 years (8 semesters) program. The program is designed and developed along the modern lines which are tailored to impart and strengthen the students' knowledge in Civil Engineering and its related specialties. The BECE program is designed to produce quality professional engineers with abilities to design, manage and operate civil engineering projects. The program effectively provides a strong foundation for those wishing to pursue a career in civil engineering through a diverse range of theoretical knowledge and practical skills. The program is based on solid foundations of mathematics and sciences followed by hands-on training in well-equipped labs augmented by industrial visits and study tours. The BECE program envisages extensive outdoor training in engineering surveying in the field and camp. On job internship training is also a hallmark of this program.

Program Mission

"To provide quality education in civil engineering fundamental, applications, innovation and skills that prepare competent graduates who pursue professional excellence with responsibility and effective societal contribution"

Program Educational Objectives

The Program Educational Objectives (PEOs) for the Civil Engineering Program describe

Accomplishments that graduates are expected to attain within four to five years after graduation. The PEO's of the program states that the graduates of BECE program are expected to:

Demonstrate competence in civil engineering profession by applying in-depth knowledge and technical skills with global, societal and sustainable perspectives.

Practice civil engineering with professional integrity and commitment to social and ethical responsibilities.

Demonstrate interpersonal and management skills in workplace.
Demonstrate engagement in enhancing professional skills and exhibit quest for professional development.

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Program Learning Outcomes (PLOs)
The Program Learning Outcomes (PLOs) broadly describe the skills, knowledge, and behaviors the students acquire in their program of study. The PLOs of the BECE program have been adopted from the graduate attributes for engineers defined in the Pakistan Engineering Council (PEC) Outcome Based Assessment (OBA) Manual, 2014. The PLOs state that the graduates of Civil Engineering program will attain the following attributes for their professional career during their stay in the University:

Engineering Knowledge: An ability to apply knowledge of mathematics, science and engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

Problem Analysis: An ability to identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

Design/Development of Solutions:
An ability to design solutions for complex engineering problems and design systems, components or processes that meet the specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

Investigation:
An ability to investigate complex engineering problems in a methodical way including literature survey, design and conduct of experiments, analysis and interpretation of experimental data, and synthesis of information to derive valid conclusions.

Modern Tool Usage:
An ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities, with an understanding of the limitations.

The Engineer and Society:
An ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solution to complex engineering problems.

Environment and Sustainability:
An ability to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

Ethics: Principles and commit to professional ethics and responsibilities and norms of engineering practice.

Individual and Team Work:
An ability to work effectively as an individual or in a team, on multifaceted and/or multidisciplinary settings.

Communication:
An ability to communicate effectively, orally as well as in writing, on complex engineering activities with the Engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective instruction

Project Management:
An ability to demonstrate management skills and apply engineering principles to one's own work, as a member and/or leader in a team, to manage projects in a multidisciplinary environment.

Lifelong Learning:
The ability to recognize importance of, and pursue lifelong learning in the broader context of innovation and technological developments.






Semester Plan

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Semester I

Code	Course Title	CrHrs	Pre- Requisite
CE1113	Civil Engineering Materials	2+1	Nil
MD1073	Applied Physics & Electro-Mechanical Fundamentals	2+1	Nil
CE1013	Engineering Drawing	1+2	Nil
HM1033	Functional English	3+0	Nil
MT1013	Quantitative Reasoning-I	3+0	Nil
CS1013	Applications of ICT	2+1	Nil
	Total	18	

Semester II

Code	Course Title	CrHrs	Pre- Requisite
CE1213	Engineering Surveying	2+1	Nil
MD1021	Geology for Engineers	1+0	Nil
HM1012	Islamic Studies / Ethics	2+0	Nil
CE1313	Engineering Mechanics	2+1	Nil
HM1032	Pakistan Studies	2+0	Nil
CS1023	Computer Programming	2+1	Nil
MT1023	Quantitative Reasoning-II Total 17	3+0	Quantitative Reasoning-II

Semester III

Code	Course Title	CrHrs	Pre- Requisite
CE2023	Civil Engineering Drawing & Graphics	1+2	Engineering Drawing
HM2022	Ideology and Constitution of Pakistan	2+0	Nil
CE2513	Structural Analysis-I	1+0	Engineering Mechanics
HM2081	Understanding of Holy Quran-I / Fehm-e-Quran-I	2+1	Nil
CE2223	Advanced Engineering Surveying	2+1	Nil
CE2613	Fluid Mechanics	2+0	Nil
CE2322	Mechanics of Solids-I	3+0	Engineering Mechanics
MT2033	Advanced Calculus Total 21	3+0	Nil

Semester IV

Code	Course Title	CrHrs	Pre- Requisite
CE2122	Construction Engineering	2+0	Nil
HM2062	Professional Ethics	2+0	Nil
MT2043	Applied Mathematics	3+0	Advanced Calculus
CE2333	Mechanics of Solids-II	2+1	Mechanics of Solids-I
CE2413	Soil Mechanics	2+1	Nil
HM2091	Understanding of Holy Quran-II / Fehm-e-Quran-II	1+0	Understanding of Holy Quran-II / Fehm-e-Quran-I1
HM2072	Organizational Behaviour	2+0	Nil
CE2813	Environmental Engineering	2+1	Nil
MD2060	Survey Camp Total 19	0+0	Nil

Semester V

Code	Course Title	CrHrs	Pre- Requisite
CE3523	Structural Analysis-II	3+0	Structural Analysis-I
CE3623	Advanced Fluid Mechanics	2+1	Fluid Mechanics
HM3043	Expository Writing	3+0	Functional English
CE3424	Geotechnical Engineering	3+1	Soil Mechanics
CE3534	Reinforced Concrete Design-I	3+1	Nil
	Total	17	

Semester VI

Code	Course Title	CrHrs	Pre- Requisite
CE306	Engineering Hydrology	2+1	None
CE317	Mechanics of Solids-II	2+1	CE216
CE318	Structural Analysis-II	3+0	CE214
CE319	Transportation Engineering-I	3+0	None
CE327	Construction Engineering	2+1	CE326
CE415	Reinforced Concrete Design-II	3+1	CE320
	Total	19	

Semester VII

Code	Course Title	CrHrs	Pre- Requisite
CE305	Environmental Engineering-I	2+1	None
CE330	Architecture & Town Planning	3+0	None
CE403	Geotechnical & Foundation Engineering	3+1	CE213
CE419	Transportation Engineering-II	3+1	CE319
CE498	Civil Engineering Project-I	0+3	None
MG403	Entrepreneurship	3+0	None
	Total	20	

Semester VIII

Code	Course Title	CrHrs	Pre- Requisite
CE406	Environmental Engineering-II	2+0	CE305
CE411	Geo-Informatics	1+1	None
CE424	Hydraulics & Irrigation Engineering	3+1	CE301
CE425	Steel Structures	3+0	None
CE499	Civil Engineering Project-II	0+3	CE498
MG295	Organizational Behavior	2+0	None
	Total	16	

Department of Pharmacy

Pharmacy is known as a lifesaving profession and is an important part of any healthcare system which makes pharmacy a much sought after profession. Keeping in view an increasing demand of pharmacy professionals, the Department of Pharmacy was established in 2015 with a vision of achieving excellence in imparting quality education and research. The department has a well-developed infrastructure including spacious lecture halls equipped with the latest audio-visual aids and well-equipped labs. A state-of-the-art library is available to instill into the students the quest for self-learning and to enhance their professional as well as general knowledge. Highly qualified and competent faculty serves the department and guides the students to achieve their educational goals. The academic progress of the students is monitored throughout the degree program with a viewpoint of continuous improvement to achieve an ultimate goal of converting them into graduates having in-depth knowledge and skills coupled with a sense of professional and social responsibility.

Doctor of Pharmacy (Pharm D)

The Department of Pharmacy offers a 5-year Doctor of Pharmacy (Pharm.D) program which is duly accredited by the Pharmacy Council of Pakistan (PCP). The department follows the latest HEC and PCP approved curriculum. The curriculum not only provides a solid foundation of the discipline but also equips the students with knowledge and skills required to practice as quality healthcare professionals. Along with the theory, the curriculum has practical work as a major component of the degree program. Training of the students in clinical pharmacy and hospital pharmacy at tertiary care hospitals, field trips for collection of medicinal plants and study tours to pharmaceutical industries are conducted as a part of the pharmacy curriculum. The Pharm.D graduates find positions in pharmaceutical industry, academia, drug regulatory authorities, and other healthcare sectors.

Program Mission

To produce competent pharmacy professionals through a contemporary curriculum emphasizing quality education, practical skills and critical thinking with a sense of ethical and social responsibility and continuous professional growth.

Program Educational Objectives

Program Educational Objectives (PEOs) are the attributes and abilities that the graduates are expected to demonstrate within four to five years of graduation. The PEOs stipulate the high-level program objectives and provide a broad framework to design program learning outcomes, curriculum and its provision.

The graduates of Pharm-D program are expected to:

1. Demonstrate excellence in profession through in depth knowledge and skills as pharmacists in pharmacy practice, industry, academia and research and development.

2. Demonstrate the strong ethical and professional values, critical thinking, and social and management skills.

3. Engage in continuous professional development and lifelong learning.

Program Learning Outcomes

The Program Learning Outcomes (PLOs) broadly describe the skills, knowledge, and behaviors the students acquire in their program of study. The PLOs are publicized and available on the university website, university notice boards, posters, and prospectus. Approved PLOs state that:

The Pharm.D program enables students to achieve the following attributes by the time of graduation:

1. Professional Knowledge: An ability to demonstrate sound knowledge of basic medical sciences, pharmaceutics, pharmaceutical chemistry, pharmacognosy and pharmacy practice.

2. Professional Services: An ability to apply professional knowledge in various disciplines of the profession like clinical, hospital, community, drug regulation, industry, academia and research and development.

3. Design and Development: An ability to design, develop and analyze selected dosage forms and drug delivery systems.

4. Pharmaceutical Industry: An ability to demonstrate knowledge of design, work flow of various departments, unit operations, equipments and processes used in a pharmaceutical manufacturing facility.

5. Pharmaceutical care: An ability to and design, implement, evaluate, modify patient-specific pharmaceutical care plan in consultation with patients and healthcare team to achieve health outcomes and improve patient's quality of life.

6. Drug Safety: An ability to identify, prevent, monitor, and manage drug interactions, adverse drug effects, contraindications and medication errors.

7. Community Health Services: An ability to perform compounding, dispensing, patient counseling and education, and to provide public health services.

8. Distribution and Sale: An ability to demonstrate an understanding of the systems for distribution, marketing and retail sale of medications and associated medical products.

9. Management Skills: An ability to apply pharmaceutical management principles to manage pharmaceutical projects from start to end as a team member or as an individual.

10. Communication Skills: Demonstrate effective interpersonal, oral and written communications skills to interact with healthcare professionals, patients and other stakeholders.

11. Ethics: A commitment to apply ethical principles, professional ethics, adhere to social responsibility, norms and comply with the laws of pharmaceutical practice.

12. Lifelong Learning: Recognize importance of, and pursue, lifelong learning and further the body of knowledge in the broader context of development of the profession.

Semester Plan

Semester I

Code	Course Title	CrHrs	Pre-Req.
PD101	Pharmaceutical Chemistry-IA (Organic)	3+1	None
PD102	Pharmaceutical Chemistry-IIA (Biochemistry)	3+1	None
PD103	Pharmaceutics-IA (Physical Pharmacy)	3+1	None
PD104	Physiology-A	3+1	None
PD105	Anatomy & Histology	3+1	None
SS103	English-A (Functional English)	3+0	None
	Total	23	

Semester II

Code	Course	CrHrs	Pre-Req.
PD123	Pharmaceutical Chemistry-IB (Organic)	3+1	None
PD126	Pharmaceutical Chemistry-IIB (Biochemistry)	3+1	None
PD127	Pharmaceutics-IB (Physical Pharmacy)	3+1	None
PD128	Physiology-B	3+1	None
SS124	English-B (Communication & writing skills)	3+0	None
	Total	19	

Semester III

Code	Course	CrHrs	Pre-Req.
PD201	Pharmaceutics-IIA (Dosage Forms Science)	3+1	None
PD202	Pharmacology and Therapeutics-IA	3+1	None
PD203	Pharmacognosy-IA (Basic)	3+1	None
PD204	Pharmaceutics-IIIA (Pharmaceutical Microbiology & Immunology)	3+1	None
SS108	Islamic Studies	2+0	None
MT211	Pharmacy Practice-IA (Pharmaceutical Mathematics)	3+0	None
	Total	21	

Semester IV

Code	Course	CrHrs	Pre-Req.
PD221	Pharmaceutics-IIB (Dosage Forms Science)	3+1	None
PD222	Pharmacology and Therapeutics-IB	3+1	None
PD223	Pharmacognosy-IB (Basic)	3+1	None
PD224	Pharmaceutics-IIIB (Pharmaceutical Microbiology & Immunology)	3+1	None
SS118	Pakistan Studies	2+0	None
MT226	Pharmacy Practice-IB (Bio-statistics)	3+0	None
	Total	21	

Semester V

Code	Course	CrHrs	Pre-Req.
PD301	Pathology	3+1	None
PD302	Pharmacology and Therapeutics-IIA	3+1	None
PD303	Pharmacognosy II-A (Advanced)	3+1	None
PD304	Pharmaceutical Chemistry-IIIA (Pharmaceutical Analysis)	3+1	None
PD305	Pharmacy Practice-IIA (Dispensing pharmacy)	3+1	None
	Total	20	

Semester VI

Code	Course	CrHrs	Pre-Req.
PD325	Pharmacology and Therapeutics-IIB Pharmacognosy-IIB	3+1	None
PD326	(Advanced) Pharmaceutical Chemistry-IIIB (Pharmaceutical	3+1	None
PD327	Analysis)	3+1	None
PD328	Pharmacy Practice-IIB (Community, Social & Administrative Pharmacy)	3+0	None
PD329	Pharmacy Practice-III (Computer and its Applications in	3+1	None
	Total	19	
	Pharmacy)		

Semester VII

Code	Course	CrHrs	Pre-Req.
PD330	Pharmacy Practice-IVA (Hospital Pharmacy-I)	3+0	None
PD331	Pharmacy Practice-VA (Clinical Pharmacy-I)	3+1	None
PD332	Pharmaceutics-IVA (Industrial Pharmacy-I)	3+1	None
PD334	Pharmaceutics-VA (Biopharmaceutics & Pharmacokinetics-I)	3+1	None
PD335	Pharmaceutics-VIA (Pharmaceutical Quality Management-I)	3+1	None
	Total	19	

Semester VIII

Code	Course	CrHrs	Pre-Req.
PD401	Pharmacy Practice-IVB (Hospital Pharmacy-II)	3+0	None
PD402	Pharmacy Practice-VB (Clinical Pharmacy-II)	3+1	None
PD403	Pharmaceutics-IVB (Industrial Pharmacy-II)	3+1	None
PD404	Pharmaceutics-VB (Biopharmaceutics & Pharmacokinetics-II)	3+1	None
PD405	Pharmaceutics-VIB (Pharmaceutical Quality Management-II)	3+1	None
	Total	19	

Semester IX

Code	Course	CrHrs	Pre-Req.
PD430	Pharmaceutical Chemistry-IVA (Medicinal Chemistry-I)	3+1	None
PD431	Pharmacy Practice-VIA (Advanced Clinical Pharmacy-I)	3+1	None
PD432	Pharmaceutics-VIIA (Pharmaceutical Technology-I)	3+1	None
PD433	Pharmacy Practice-VIIA (Forensic Pharmacy- I)	3+0	None
PD434	Pharmacy Practice-VIIIA (Pharmaceutical Management & Marketing-I)	3+0	None
	Total	18	

Semester X

Code	Course	CrHrs	Pre-Req.
PD440	Pharmaceutical Chemistry-IVB (Medicinal Chemistry-II)	3+1	None
PD441	Pharmacy Practice-VIB (Advanced Clinical Pharmacy-II)	3+1	None
PD442	Pharmaceutics- VIIB (Pharmaceutical Technology-II)	3+1	None
PD443	Pharmacy Practice-VIIB (Forensic Pharmacy-II)	3+0	None
PD444	Pharmacy Practice-VIIIB (Pharmaceutical Management & Marketing-II)	3+0	None
	Total	18	

Department of Life Sciences

The Department of Life Sciences, one of the leading departments in Abasyn University Islamabad Campus, was established in 2014 with a vision of achieving excellence in imparting quality education and research. The department is committed to provide quality education to students to equip them with knowledge, leadership skills, ability to engage in life-long learning and professional integrity along with the strong sense of social responsibility. The department has a well-developed infrastructure including spacious lecture halls equipped with the latest audio-visual aids and well-equipped labs. Highly qualified and competent faculty serves the department and guides the students to achieve their educational goals. Memorandum of Understanding (MOUs) have been signed with different hospitals, diagnostic laboratories and research centers to enhance the clinical expertise of our students. The Department of Life Sciences offers BS-Microbiology, BS- Medical Lab Technology, BS Biochemistry, MS Biochemistry and M.Phil. Microbiology programs.

BS Medical Lab Technology (BSMLT)

Medical Laboratory Technology is a branch of medical science responsible for performing lab investigations relating to the diagnosis, treatment and prevention of diseases. Due to an ever-increasing demand of qualified medical lab technologist, the university offers a 4-year (8 semester) fulltime BS degree program in Medical Lab Technology (BSMLT). The program acquaints the students with the latest development in the field of medical lab technology and its related academic and applied aspects. It focuses on equipping students with knowledge and skills required to become a professional and competent medical lab technologist. The curriculum has been designed to train students in scientific rigor, technical know-how and reasoning skills. We believe in nurturing a multidisciplinary environment for students by offering a combination of social sciences and humanities education to broaden their scope of knowledge. Courses in logic and philosophy have been integrated to instill critical, interpretive, and behavioral skills in our students. The students are provided with the opportunities to work in hospitals and different laboratories to enhance their practical skills in advanced techniques and latest medical lab equipment. The faculty members of MLT are certified medical laboratory technologists with advanced degrees, varied clinical experiences and a diverse academic portfolio.

Program Educational Objectives

The BSMLT program aims to prepare the graduates who are expected to:

1. Demonstrate excellence in profession through in-depth knowledge and skills as a medical lab technologist in healthcare sectors, academia, and industry.

Program Learning Outcomes

The Program Learning Outcomes (PLOs) broadly describe the knowledge, skills and behaviors the students acquire in their program of study that are intended to foster the achievement of Program Educational Objectives (PEOs).

By the end of the BSMLT program, the graduates will have the following attributes:

Knowledge: Demonstrate an understanding of the scientific principles underlying laboratory testing, including technical, procedural, and problem-solving aspects.

Skills: Perform proficiently the full range of clinical laboratory tests in areas such as hematology, clinical chemistry, immunohematology, serology/immunology, microbiology, coagulation, and molecular and other emerging diagnostics and participate in the evaluation of new techniques and procedures in the laboratory.

Solving and Analytical Decision Making: Evaluate and solve problems related to collection and processing of biological specimens for analysis and differentiate and resolve technical, instrument, and physiologic causes of problems or unexpected test results.

Training Responsibilities:
Incorporate principles of educational methodologies in the instruction of laboratory.

2. Demonstrate effective communication and interpersonal skills with high professional and ethical standards.

care

3. Engage in continuous knowledge and lifelong learning.

personnel, other health professionals, and consumers.

Problem Solving: Identify problems, explore and prioritize potential problem-solving strategies; and design and implement a viable solution.

Management Skills:
Demonstrate management skills and apply medical lab technology principles to one's own work, as a member and/or leader in a team, to manage projects in a multidisciplinary environment.

Communication Skill: An ability to communicate effectively, orally and in writing, with a range of audience.

Individual and Teamwork: An ability to function effectively as an individual as well as a team member to accomplish a task

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of medical lab technology.

Lifelong Learning: Recognize importance of, and pursue, lifelong learning and further the body of knowledge in the broader context of development of the profession.

Semester Plan

Semester I

Code	Course Title	CrHrs	Pre-Req.
LT102	Human Physiology-I	3+1	None
LT103	Human Anatomy-I	3+1	None
LT107	Biochemistry-I	3+1	None
CS100	Introduction to Computing	2+1	None
SS104	English-I	3+0	None
SS108	Islamic Studies	2+0	None
	Total	20	

Semester II

Code	Course Title	CrHrs	Pre-Req.
LT112	Human Physiology-II	3+1	LT102
LT113	Human Anatomy-II	3+1	LT103
LT117	Biochemistry-II	3+1	LT107
LT207	Medical Microbiology-I (Non MLT)	2+1	None
SS118	Pakistan Study	2+0	None
SS203	English-II (Communication Skills)	3+0	SS104
	Total	20	

Semester III

Code	Course Title	CrHrs	Pre-Req.
LT201	General Pathology-I	2+1	None
LT202	General Pharmacology-I	2+1	None
LT203	Clinical Bacteriology	2+1	None
LT204	Hematology-I	2+1	None
LT205	Human Genetics	2+1	None
LT217	Medical Microbiology-II (Non MLT)	2+1	LT207
SS211	English-III (Technical Report writing)	3+0	SS203
	Total	18	

Semester IV

Code	Course Title	CrHrs	Pre-Req.
LT211	General Pathology-II RBC	2+1	LT201
LT212	Disorders Clinical Virology and	2+1	None
LT213	Mycology Chemical Pathology	2+1	None
LT214	Behavioral Sciences	2+1	None
LT215	Hematology-II (Non MLT)	2+0	None
LT216	General Pharmacology-II	2+1	LT204
LT220		2+1	LT202
	Total	17	

Semester V

Code	Course Title	CrHrs	Pre-Req.
LT301	WBC and Platelets Disorders	2+1	None
LT302	Histopathology	2+1	None
LT304	Clinical Parasitology	2+1	None
LT305	Clinical Pathology	2+1	None
LT306	Biotechnology	3+0	
MT210	Biostatistics	3+0	None
	Total	18	

Semester VI

Code	Course Title	CrHrs	Pre-Req.
LT303	Medical Laboratory Instrumentations	2+1	None
LT308	Immunology & Serology	2+1	
LT310	Blood Banking	2+1	
LT313	Advances in Medical Laboratory Technology	1+2	
LT347	Bioinformatics	1+2	None
SS401	Research Methodology and Professional Ethics	3+0	SS401
	Total	18	

Semester VII

Code	Course Title	CrHrs	Pre-Req.
LT401	Medical Laboratory Management Skills	2+1	
LT402	Fundamentals of Infection Control	1+1	
LT403	Molecular Biology	2+1	
LT404	Epidemiology	2+0	
LT405	Systemic Diagnostic Bacteriology	2+1	
LT410	Cytology and Cytogenetics	2+1	
	Total	16	

Semester VIII

Code	Course Title	CrHr	Pre-Req.
LT408	Medical Sociology	2+1	
LT409	Bioethics	1+1	
LT490	Seminar	0+1	
LT499	Research Project	0+6	
	Total	12	

Total Credit Hours: 139

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Department of Rehabilitation and Health Sciences

The Doctor of Physical Therapy program commenced in 2018 under the umbrella of Department of Life Sciences. Due to the ex- ponential growth in number of students the Department of Rehabilitation and Health Sciences (DRHS) emerged as an independent department in September 2020. The depart- ment is committed in providing quality education such that students are equipped with research-based knowledge, leadership skills, ability to engage in life-long learning and professional integrity along with the strong sense of social responsibility and teamwork skills. The department has highly qualified

Department Objectives:

Objectives include highly qualified faculty, state-of-the-art labs, and strong linkages with hospitals. Department is planning to offer an Outcome Based Education (OBE) which is focused on achieving specific quality attributes a student should have while progressing through the degree program. The Department currently offers Doctor of Physical Therapy (DPT), Bachelor of Sciences in Human Nutrition and Dietetics (BSHND) and Bachelor of Sciences in Radiology Technology (BSRT) programs.

Doctor of Physical Therapy (DPT)

The Doctor of Physical Therapy is a 5 year (10 semesters) program. The physical therapy is an integral part of the modern healthcare system that focuses on the treatment of injury, deformity disability and neurological, musculoskeletal, cardiopulmonary conditions by physical methods. The main goal

Program Educational

The objective of the DPT program is to equip students with relevant knowledge, clinical skills, critical thinking and social responsibility. The program is a balanced mix of theory and practical experiences at foundation and advanced level. The DPT graduates will be able to assume responsible positions in national and international physical therapy setups, private or government multidisciplinary hospitals, rehabilitation centers, academia, sports complex and special education centers.

Program Educational Objectives (PEOs)

The graduates of the DPT program are expected to:

Be competent physical therapists who exhibit theoretical knowledge and practical skills in hospital, rehabilitation centers and/or academia.

Practice physical therapy in an ethical and socially responsible manner.

Demonstrate interpersonal and management skills and engage in professional growth.

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Program Learning Outcomes

The DPT program enables students to achieve, by the time of graduation:

1. An ability to demonstrate in-depth knowledge of the basic and clinical sciences relevant to physical therapy, both in their fundamental context and in their application to the discipline of physical therapy.

An ability to exhibit professional conduct and behaviors that are consistent with the legal and ethical practice of the profession.

An ability to demonstrate compassion, integrity, and respect for differences, values, and preferences in all interactions with patients/clients, caregivers, other health care providers, and community at large.

An ability to communicate effectively, orally and in writing, with a range of audience.

An ability to understand, correlate and apply theoretical foundations of knowledge to the practice of physical therapy; evaluate and clarify new or evolving theory relevant to physical therapy.

An ability to function effectively as an individual as well as a team member to accomplish a task.

An ability to demonstrate mastery of entry level professional clinical skills. Provision of these services is based on the best available evidence and includes physical therapy examination, evaluation, diagnosis, prognosis, intervention, prevention activities, wellness initiatives and appropriate health care utilization.

An ability to use latest techniques, skills and tools necessary for the physical therapy services.

Recognition for the need of, and an ability to engage in continuing professional development.

Semester Plan

Semester I

Code	Course Title	CrHrs	Pre-Req.
DP103	Anatomy-I	3+1	None
DP104	Physiology-I	2+1	None
DP106	Kinesiology-I	2+1	None
SS104	English-I	3+0	None
SS118	Pakistan Studies	2+0	None
MT210	Biostatistics-I	3+0	None
	Total	18	

Semester II

Code	Course Title	CrHrs	Pre-Req.
DP113	Anatomy-II	3+1	DP103
DP114	Physiology-II	2+1	DP104
DP116	Kinesiology-II	2+1	DP106
SS108	Islamic Studies	2+0	None
SS203	English-II	3+0	SS104
MT320	Biostatistics-II	3+0	MT210
	Total	18	

Semester III

Code	Course Title	CrHrs	Pre-Req.
DP107	Biochemistry-I	2+0	None
DP201	Medical Physics	2+1	None
DP203	Anatomy-III	2+1	DP113
DP204	Physiology-III	2+1	DP114
DP206	Biomechanics & Ergonomics-I	3+0	None
SS211	English-III	3+0	SS203
	Total	17	

Semester IV

Code	Course Title	CrHrs	Pre-Req.
DP205	Health &Wellness	2+0	None
DP207	Biochemistry-II	2+1	DP107
DP209	Exercise Physiology	2+1	DP204
DP210	Molecular Biology & Genetics	2+0	None
DP213	Anatomy-IV	2+1	DP203
DP214	Biomechanics & Ergonomics-II	2+1	DP206
CS100	Introduction to Computer	2+1	None
	Total 19		

Semester V

Code	Course Title	CrHrs	Pre-Req.
DP301	Pathology & Microbiology-I	2+0	None
DP302	Pharmacology & Therapeutics-I	2+0	None
DP303	Physical Agent & Electrotherapy-I	2+1	None
DP304	Therapeutic Exercise & Techniques	2+1	None
DP319	Supervised Clinical Practice-I	0+3	None
SS222	Behavioral Sciences	2+0	None
	Total	15	

Semester VI

Code	Course Title	CrHrs	Pre-req.
DP311	Pathology & Microbiology-II	2+1	DP301
DP312	Pharmacology & Therapeutics-II	2+0	DP302
DP313	Physical Agent & Electrotherapy-II	2+1	DP303
DP315	Community Medicine & Rehabilitation	3+0	None
DP329	Supervised Clinical Practice-II	0+3	DP319
SS216	Introduction to Sociology	2+0	None
	Total	16	

Semester VII

Code	Course Title	CrHrs	Pre-Req.
DP339	Supervised Clinical Practice-III	0+3	DP329
DP401	Medicine-I	3+0	None
DP402	Surgery-I	3+0	None
DP403	Radiology & Diagnostic Imaging	2+1	None
DP404	Musculoskeletal Physical Therapy	2+1	None
DP405	Evidence Based Practice	2+1	None
	Total	18	

Semester VIII

Code	Course Title	CrHrs	Pre-Req.
DP349	Supervised Clinical Practice-IV	0+3	DP339
DP411	Medicine-II	3+0	DP401
DP412	Surgery-II	3+0	DP402
DP413	Neurological Physical Therapy	2+1	None
DP414	Scientific Inquiry & Research Methodology	2+1	None
DP415	Emergency Procedures & Primary Care In Physical Therapy	2+1	None
	Total	18	

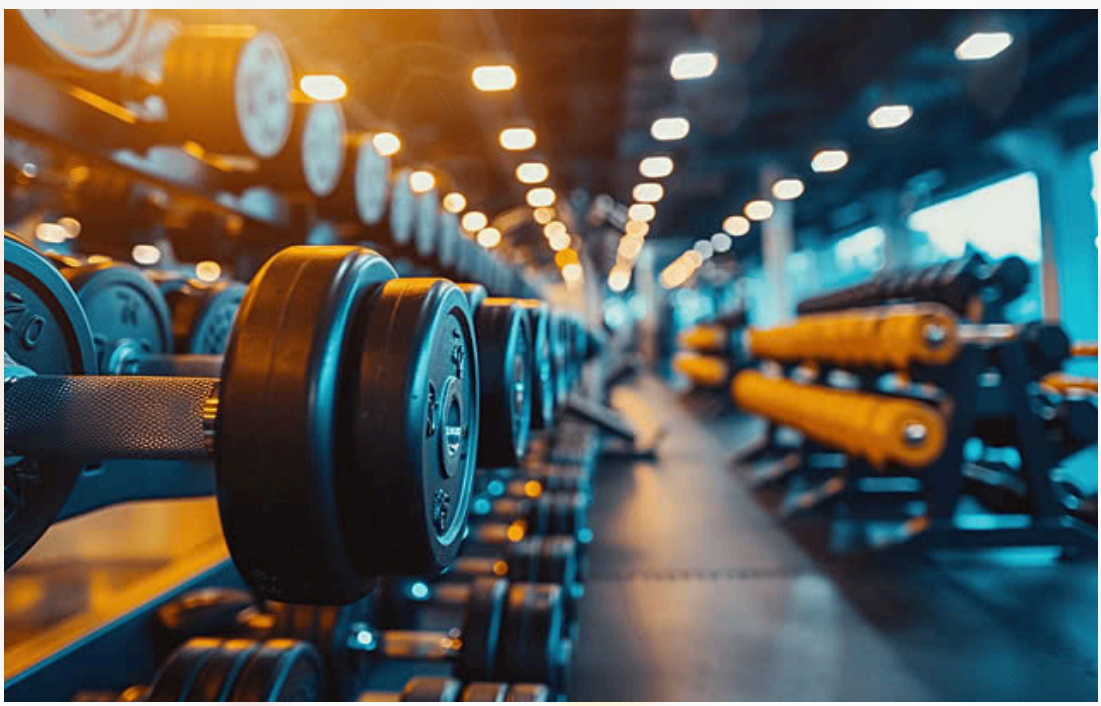
Semester IX

Code	Course Title	CrHrs	Pre-Req.
DP431	Cardiopulmonary Physical Therapy	2+1	None
DP432	Prosthetics & Orthotics	2+0	None
DP433	Differential Diagnosis	3+0	None
DP434	Manual Therapy	2+1	None
DP435	Professional Practice	2+0	None
DP436	Integumentary Physical Therapy	2+0	None
DP437	Supervised Clinical Practice-V	0+3	DP349
	Total	18	

Semester X

Code	Course Title	CrHrs	Pre-Req.
DP419	Supervised Clinical Practice-VI Obstetrics &	0+4	DP437
DP441	Gynecological Physical Therapy Pediatric	2+0	None
DP442	Physical Therapy Geriatric Physical Therapy	2+0	None
DP443	Sports Physical Therapy Research Project	2+0	None
DP444		2+0	None
DP449		0+6	None
	Total	18	

Total Credit Hours 139



BS Human Nutrition & Dietetics (BSHND)

The BS Human Nutrition and Dietetics is a 4-year (8 semesters) degree program. Human Nutrition and Dietetics is the application of science of nutrition to the prevention and treatment of disease constituting important part of healthcare system that uplifts health status through better nutrition. The BSHND is focused on quality education, critical thinking, sense of social responsibility and teamwork skills. The program is a balanced mix of theory and practical experience at foundation and advance levels. The graduates of Human Nutrition and Dietetics program have the career opportunities in hospitals, private clinical setups, public health departments, restaurants and/or academia as nutrition consultants, public health nutritionists and food service administrators.

Program Educational Objectives

The graduates of HND program are expected to:

1. Be competent Dietitians who exhibit theoretical knowledge and practical skills in hospitals, private clinical setups, public health departments, restaurants and/or academia.

2. Practice clinical nutrition in an ethical and socially responsible manner.

3. Demonstrate interpersonal and management skills and engage in professional growth.

Program Learning Outcomes

The HND program enables students achieve, by the time of graduation:

- An ability to integrate concepts related to nutrition and health, food science and technology. Identify major sources of nutrients and develop dietary guidelines and recommendations.
- An ability to exhibit professional conduct and behaviors that are consistent with the legal and ethical practice of profession.
- An ability to demonstrate compassion, integrity, and respect for differences, values, and preferences in all interactions with patients/clients, caregivers, other health care providers, and community at large.
- An ability to communicate effectively, orally and in writing, with a range of audience.
- An ability to understand, correlate and apply theoretical foundations of knowledge to the practice of nutritional knowledge; evaluate and clarify new or evolving theory relevant to nutritional knowledge.
- An ability to function effectively as an individual as well as a team member to accomplish a task.
- An ability to demonstrate mastery of entry level professional clinical skills. Provision of these services is based on the best available evidence and includes examination, evaluation, diagnosis, intervention, prevention, wellness initiatives and appropriate diet management.
- An ability to identify and select an appropriate method for measuring food consumption, calculate mean nutrient intake and population at risk.
- Recognition for the need of, and an ability to engage in continuing professional development.

Semester Plan

Semester I

Code	Course Title	CrHrs	Pre-Req.
HN102	Fundamentals of Human Nutrition	3+0	None
HN103	Essentials of Food Science & Technology	2+1	None
HN105	Introductory Biochemistry	2+1	None
MT100	Mathematics	3+0	None
SS104	English-I	3+0	None
SS118	Pakistan Studies	2+0	None
	Total	17	

Semester II

Code	Course Title	CrHrs	Pre-Req.
HN106	Human Anatomy	2+1	None
HN107	Human Physiology-1	2+1	None
HN109	Macronutrients in Human Nutrition	3+0	None
SS108	Islamic Studies	2+0	None
SS203	English-II	3+0	SS104
SS216	Introduction to Sociology	3+0	None
	Total	17	

Semester III

Code	Course Title	CrHrs	Pre-Req.
HN104	Food Safety and Quality Management	2+0	None
HN108	Micronutrients in Human Nutrition	3+0	None
HN114	Human Physiology-II	2+1	HN107
HN204	Food Microbiology	2+1	None
HN205	Introductory Molecular Genetics	2+1	None
SS211	English-III	3+0	SS203
	Total	17	

Semester IV

Code	Course Title	CrHrs	Pre-Req.
HN201	General Pathology	2+1	None
HN207	Food Analysis	1+2	None
HN208	Assessment of Nutritional Status	2+1	None
HN209	Nutrition Through the Life Cycle	3+0	None
MT210	Bio-Statistics	2+1	MT100
CS100	Introduction to Computing	2+1	None
	Total	18	

Semester V

Code	Course Title	CrHrs	Pre-Req.
HN301	Dietetics-I	2+1	None
HN302	Nutrition and Psychology	3+0	None
HN303	Nutritional Education and Awareness	2+1	None
HN304	Meal Planning and Management	2+1	None
HN305	Public Health Nutrition	2+1	None
HN306	Food and Drug Laws	2+0	None
	Total	17	

Semester VI

Code	Course Title	CrHrs	Pre-Req.
HN311	Dietetics-II	2+1	HN301
HN312	Functional Foods and Nutraceuticals	3+0	None
HN313	Nutrition Through Social Protection	2+0	None
HN314	Sports Nutrition	2+1	None
HN315	Infant and Young Child Feeding	2+1	None
HN316	Clinical Biochemistry	1+2	None
	Total	17	

Semester VII

Code	Course Title	CrHrs	Pre-Req.
HN401	Dietetics-III	2+1	HN311
HN402	Global Food Issues	3+0	None
HN403	Research Methods in Nutrition	3+0	None
HN404	Nutritional Practices in Clinical Care	2+1	None
HN40X	Elective-I	2+0	None
HN40X	Elective-II	3+0	None
	Total	17	

Semester VIII

Code	Course Title	CrHrs	Pre-Req.
HN499	Internship/Project	0+6	
HN412	Nutrition Policies and Programs	3+0	None
HN413	Food Service Management	3+0	None
HN41X	Elective-III	2+0	None
HN41X	Elective-IV	3+0	None
	Total	17	

Elective Courses

Code	Course Title	CrHrs	Pre-Req.
HN405	Nutritional Immunology	3+0	None
HN406	Drug-Nutrient Interaction	2+0	None
HN407	Food Chemistry	2+0	None
HN408	Preventive Nutrition	3+0	None
HN409	Nutrition in Emergencies	3+0	None
HN414	Food Toxins & Allergens	3+0	None
HN415	Nutritional Deficiency Disorders	3+0	None
HN416	Food Supplements	2+0	None
HN417	Metabolism of Nutrients	2+0	None
HN418	Nutrition Epidemiology	2+0	None

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BS Radiology Technology (BSRT)

Modern radiology is a highly diversified and vast field consisting of diverse areas such as – Diagnostic Radiology, Interventional Radiology and Radiation Therapy. The Radiology Technologist, as they are commonly called, work in all these areas of radiological sciences, discharging their duties often at tertiary level medical centers, diagnostic labs, teaching hospitals and academic research centers. These highly trained and specialized professionals work with patients undergoing procedures such as Interventional Angiography, Computed Tomography, Magnetic Resonance Imaging, Doppler Scanning, Ultrasonography and many others. Thus, they are a key part of healthcare delivery team in any modern hospital set up. To meet the growing demand for well-trained radiology technologist, the university offers a 4-year degree program in Radiology Technology. The curriculum of Radiology Technology is well designed to equip students with theoretical knowledge and practical skills. The students are provided with the opportunity to work in hospitals to sharpen up their clinical skills.

Program Educational Objective

The graduates of BSRT program are expected to:

1. Be competent Radiology technologist exhibit theoretical knowledge and practical skills in hospitals, private clinical setups, diagnostic centers, labs and/or academia.
2. Practice clinically in an ethical and socially responsible manner.
3. Demonstrate interpersonal and management skills and engage in professional growth.

Program Learning Outcomes

The RT program enables students to achieve, by the time of graduation:

1. An ability to integrate concepts from the biological, physical, behavioral, and clinical sciences into radiology services.

An ability to exhibit professional conduct and behaviors that are consistent with the legal and ethical practice of radiology. Develop accuracy and meticulousness to attain high levels of ethics and technical proficiency.

- An ability to demonstrate culturally sensitive verbal, nonverbal, and written communications (consents) that are effective, accurate, and timely.
- An ability to collect and critically evaluate data and published literature to apply in the delivery of care, practice management, and to examine the theoretical and scientific basis for radiology.
- An ability to collaborate with patients/clients, caregivers, and other health care providers to develop and implement an evidence-based plan of care that coordinates resources.
- An ability to provide services in the field of differential diagnosis, radiation therapy, radiation protection within the scope of radiology. Provide quality patient care in routine as well as advanced imaging procedures.
- An ability to advocate for patient/client and profession.
- An ability to provide consultative services, human and financial.

- Education to patients/clients, and caregivers, health care workers, and the public using culturally sensitive methods that are adapted to the learning needs, content, and context. Implementation of an effective protection program for the personnel and patient/client.
- An ability to identify trouble-shooting & problems related to the equipment used in Radiology. Perform maintenance and corrective measures on imaging instruments, where required. Maintenance of stock solutions, controls and equipment.
- An ability to demonstrate interdisciplinary team building strategies or effective coordination between various allied health disciplines. Develop good leadership, problem solving and administrative skills. Self-reflection and...

- An ability to demonstrate interdisciplinary team building strategies or effective coordination between various allied health disciplines. Develop good leadership, problem solving and administrative skills. Self-reflection and team building for research methodology in the field of radiology.
- An ability to complete work in compliance with the quality assurance policies and procedures. Equipment, personnel, precautionary measures and construction should meet the requirements of QAP (Quality assurance policies). ALARA should be focused mainly.

Semester Plan

Semester I

Code	Course Title	CrHrs	Pre-Req.
RT101	Biochemistry-I	2+1	None
RT102	Human Physiology-I	2+1	None
RT103	Human Anatomy-I	3+1	None
SS104	English-I	3+0	None
SS118	Pakistan Studies	2+0	None
CS100	Introduction to Computing	2+1	None
	Total	18	

Semester II

Code	Course Title	CrHrs	Pre-Req.
RT111	Biochemistry-II	2+1	RT101
RT112	Human Physiology-II	2+1	RT102
RT113	Human Anatomy-II	3+1	RT103
SS203	English-II	3+0	SS104
SS108	Islamic Studies	2+0	None
	Total	15	

Semester III

Code	Course Title	CrHrs	Pre-Req.
RT206	Regional and Radiological Anatomy-I	2+1	None
RT208	General Radiology	2+1	None
RT207	Radiation Sciences and Technology	2+1	None
RT204	General Pathology	2+1	None
RT205	General Pharmacology	2+1	None
SS211	English-III	3+0	SS203
	Total	18	

Semester IV

Code	Course Title	CrHrs	Pre-Req.
RT210	Clinical Medicine-I	2+0	None
RT211	Regional and Radiological Anatomy-II	2+1	RT201
RT212	Conventional Radiological & Clinical Practice	2+1	None
RT213	Radiological Positioning	2+1	None
RT214	Computed & Digital Radiography (CR & DR)	2+1	None
RT215	Radiobiology & Radiation Protection	2+1	None
	Total	17	

Semester V

Code	Course Title	CrHrs	Pre-Req.
RT301	Computed Tomography (CT)	2+1	None
RT302	Mammography & Special Radiological Techniques	2+1	None
RT303	Magnetic Resonance Imaging (MRI)	2+1	None
RT304	General Surgery	2+1	None
RT305	Interventional Radiology	2+1	None
RT310	Clinical Medicine-II	2+1	RT210
	Total	18	

Semester VI

Code	Course Title	CrHrs	Pre-Req.
RT311	Radiological & Cross-sectional Anatomy	2+1	None
RT312	Computed Tomography (CT) Procedures & Clinical Practice	2+1	None
RT313	Magnetic Imaging (MRI)Procedures & Clinical	2+1	None
RT314	Therapeutic Radiology	2+1	None
MT210	Biostatistics	3+0	None
SS401	Research Methodology	3+0	None
	Total	18	

Semester VII

Code	Course Title	CrHrs	Pre-Req.
RT401	Clinical Sonography Angiography and Cardiac	2+1	None
RT402	Imaging Nuclear Medicine Echocardiography	2+1	None
RT403	Electrocardiography (ECG) Clinical Pathology	2+1	None
RT404	& Radiological Presentation	2+1	None
RT405		2+1	None
RT406		2+1	None
	Total	18	

Semester VIII

Code	Course Title	CrHrs	Pre-Req.
RT414	Patient care & Management	2+0	None
RT415	Medical Sociology	2+0	None
RT499	Research Project	06	None
RT416	Bio-ethics	2-0	None
RT417	Bio-entrepreneurship	2-0	None
	Total	14	

BS Vision Sciences (BSVS)

Vision, for most people is one of the most valuable sensory modalities in their life. It is hot topic and related to how we see, how and why vision fails, and what can be done about it? The Vision Science [VS] has, in its own right, emerged as a strong field of medical sciences that needs to be learned and practiced to alleviate the human sufferings.

BS Vision Sciences (Optometry) is a multidisciplinary degree, which will prepare you to handle issues relating to human vision; including the study of biochemistry, biophysics, engineering, epidemiology, molecular biology, cell biology, neuroscience, optics, ophthalmology, optometry, pathology, physiology, psychology, statistics, and any other discipline that relates to the eye and its problems. The program has the potential of expanding to postgraduate studies leading to MS and PhD degrees.

Career Paths

Optometrists/Orthoptists examine, diagnose, treat and manage diseases and disorders of the eye, as well as diagnose and refer patients to other health care providers for a variety of systemic and neurological conditions that are frequently diagnosed during the primary eye examination.

Some of the career choices for BS graduates include: Hospital based practices (Private/ Public Sector), Private practice, Retail optical practice, Ophthalmic products manufacturers, Academic institutions, and Specialty vision care centers etc.

Market Analysis

As innovative technologies become available for the diagnosis and treatment of potentially blinding conditions, the need for vision sciences expertise will be significant, making promising present and future career prospects for the optometrists/orthoptists. According to an international survey, Optometrist is ranked at #20 best health care job (https://money.usnews.com/careers/best-jobs/optometrist) Keeping in view the increasing demand, presently a number of universities and institutes (more than 20) are offering BS Vision Sciences Programs such as Isra University, Pakistan Institute Of Rehabilitation Sciences, Professional College of Medical Sciences, King Edward Medical University, Capital College Of Health Sciences, Al Wateen Institute of Medical Sciences, and Bashir Institute of Health Sciences. Some data collected from local universities/institutes show that number of applicants and intake is quite good and intakes is between 30- 70 students in different universities and hospitals.

Availability of Labs and Allied Hospital

The labs of Department of Rehabilitation and Health Sciences and Pharmacy are well equipped and can be used by the students of BS Vision Sciences students. Specialized labs for the program can be established in due course of time. The financial resources for establishing these labs can be made available easily.

The department already has MOUs signed with two hospitals for clinical rotation of the students. The negotiations with two more hospitals (Mahroof International Hospital and Rawal Medical College) for clinical rotation are in progress and hopefully we will be signing MOUs with these hospitals soon.

Availability of Faculty

The qualified faculty is available in the market and could be hired when required. Many of the courses of BS Science Vision are common with DPT, MLT and other allied programs for which faculty is already available at the campus.

Program Duration

The BS Vision Sciences is a 4-year degree program. The course work is so designed that at the end of successful completion of each year, the student accomplishes a set of course work related to a field and gains practical training in it to entitle him/her to a BS degree that is granted by the concerned department of the Abasyn University.

Admission Requirements

The admission to this program is open to students who have acquired a minimum qualification of intermediate level of education or equivalent in science subjects with a minimum of 50% marks. The candidates will take Abasyn University Admission Test. The merit will be determined as per AU admission policy.

Degree Requirements

BS Vision Sciences Program is spread over 4 years. A student has to complete a minimum of 136 credits with a CGPA 2.0 to earn the degree.

Regulatory Body

Presently there is no regulatory body for the programs. However an association of professionals (Pakistan Optometry and Vision Science Association) exists in Pakistan.

Semester Plan

Semester I

Code	Course	CrHrs	Pre-Requisite
VS101	General Anatomy General	3+1	None
VS102	Physiology	2+1	None
VS103	Microbiology	2+0	None
VS104	Biochemistry	2+0	None
VS105	Introduction to Optometry	1+0	None
SS104	English-I	3+0	None
SS108	Islamic Study	2+0	None
	Total	17	

Semester II

Code	Course	CrHrs	Pre-Requisite
VS111	General Pharmacology	2+0	None
VS112	Pathology	2+0	None
VS113	Physical & Geometrical optics	2+0	VS105
VS114	Basic & Clinical Refraction	2+0	None
CS100	Introduction to Computing	2+1	None
SS203	English-II	3+0	SS104
SS118	Pakistan Study	2+0	None
MT210	Biostatistics	3+0	None
	Total	19	

Semester III

Code	Course	CrHrs	Pre-Requisite
VS201	Ocular Anatomy	2+1	None
VS202	Ocular Physiology	2+1	None
VS203	Ocular Pharmacology	2+0	None
VS204	Ocular Diseases-I	2+0	None
VS205	OPD and Ward Procedures	0+3	None
Vs206	OT Procedures	0+3	None
CSXXX	Computer Applications in VS	1+1	CS100
	Total	17	

Semester IV

Code	Course	CrHrs	Pre-Requisite
VS210	Instrument Optics	2+0	None
VS211	Ocular Diseases-II	2+0	VS204
VS212	Visual & Clinical Optics	2+0	None
VS213	Ocular Investigation	1+1	None
VS214	Refraction Clinic-I	0+3	None
VS215	Special Clinical Duty-I	0+3	None
SS223	Behavioral Sciences	2+0	None
	Total	16	

Semester V

Code	Course	CrHrs	Pre-Requisite
VS301	Contact Lens	3+0	None
VS302	Advanced Refraction	2+0	None
VS303	Dispensing Optics-I	3+0	None
VS304	Refraction Clinic-II	0+3	VS214
VS305	Contact Lens Clinic-I	0+3	None
VS306	Optical Laboratory-I	0+3	None
	Total	17	

Semester VI

Code	Course	CrHrs	Pre-Requisite
VS310	Basic Orthoptics	2+0	None
VS311	Low Vision-I	2+0	None
VS313	Dispensing Optics-II	2+0	VS303
VS314	Refraction Clinic-III	0+3	VS304
VS315	Contact Lens Clinic-II	0+2	VS305
VS316	Optical Laboratory-II	0+3	VS306
VS317	Community Ophthalmology	2+0	None
VS318	First Aid & Hygiene	1+0	None
	Total	17	

Summer

Code	Course	CrHrs	Pre-Requisite
VS404	Special Clinical Duty-II	0+3	VS215

Semester VII

Code	Course	CrHrs	Pre-requisite
VS401	Research Methodology and Professional Ethics	3+0	None
VS402	Low Vision-II	2+0	VS311
VS403	Occupational Optometry	2+0	None
VS405	Orthoptics Clinic-I	0+3	None
VS406	Refraction Clinic-IV	0+2	VS314
VS407	Low Vision Clinic-I	0+3	None
VS408	Clinical Orthoptics	2+0	None
VS409	Pediatric Optometry	2+0	None
	Total	19	

Semester VIII

Code	Course	CrHrs	Pre-requisite
VS410	Optical Shop and Industry Management	1+1	None
VS411	Ophthalmic Instruments & Maintenance	1+1	None
VS412	Orthoptics Clinic-II	0+3	VS405
VS413	Low Vision Clinic – II	0+2	VS407
VS499	Dissertation Writing	0+6	None
	Total	14	

BS Operation Theater (BSOT)

Operation Theatre Technology is a detailed technical occupation in the field of health science. These medical professionals are an important part of the operation unit team who work alongside with the surgeon, anesthesiologist and nurse in order to provide quality patient care throughout the surgery. These technicians make sure that every single process in the operation theatre is as secure and flourishing as possible. Their prime duty is to take care of all the work and management of the operation theatre which comprise looking after all the surgical instruments, their sterilization, preparation of dressing table, operation theatre table, instrument table as well as anesthesia table. They also look after the drugs necessary for surgery, anesthetic gases, drapes and all the linen and their sterilization. They bring together both sterile and non-sterile tools and at the same time regulate them to make sure that all are functioning appropriately.

Career Paths

After completing a B.Sc Operation Theatre Technology course hospitals and healthcare centers are the main recruiters for the

Operation Theatre Technologists. As a technologist, they can get a chance to work in the operation theatres, emergency departments of the hospitals, and in the ICUs. They may work in private specialty practices, surgery as ophthalmology, neurosurgery, obstetrics and orthopedics. Ambulatory surgery centers also employ surgical technologists, as do veterinarians.

for assistance in surgery. These Technologists may work as sales representatives or technical specialists for teaching Operating Room Staffs how to use new equipment's, such as orthopedic devices and implants. They may get chance to work as a teacher/ lecturer in the respective field etc.

Market Analysis

As innovative technologies become available to work as an OT technician, Lab Technician, OT Assistant, Associate Consultant in the operation theatres, emergency departments of the hospitals, and in the ICUs. Keeping in view the increasing demand, presently a number of universities and institutes (more than 15) are offering BS Operation Theatre Technology Program such as Shaheed Zulfiqar Ali Bhutto Medical University, Pims, Mirpur University Of Science And Technology Mir Pur (AJK), The University Of Faisalabad, The Superior University, D. G. Khan Medical College, Aziz Fatimah Medical And Dental College, Independent Medical College Faisalabad, Capital College Of Health Sciences, Allied College Of Health

Science, Akhtar Saeed Medical And Dental College, Central Park College Of Allied Health Sciences, Gulab Devi Educational Complex, Allied College Of Health Sciences, Hafeez Institute Of Medical Sciences Peshawar, Sialkot Medical College, Laeeque Rafique Institute Of Medical Sciences & Nursing School. Some data collected from local universities/institutes show that number of applicants and intake is quite good and intakes is between 25-50 students in different universities and hospitals.

Program Duration

The BS Operation Theatre Technology is a 4 – Year Degree Program. The course work is so designed that at the end of successful completion of each year, the student accomplishes a set of course work related to a field and gains practical training in it to entitle him/her to a BS degree that is granted by the concerned department of the Abasyn University.

Admission requirements

The admission to this program is open to students who have acquired a minimum qualification of intermediate level education or equivalent in science subjects with a minimum of 50% marks. The candidates will take Abasyn University Admission Test. The merit will be determined as per AU admission policy.

Degree requirements

BS Operation Theatre Technology Program is spread over 4 years. A student has to complete a minimum of 136 credits with a CGPA 2.0 to earn the degree.

Availability of Labs and Allied Hospital

The labs of Department of Rehabilitation and Health Sciences and Pharmacy are well equipped and can be used by the students of BS Operation Theatre Technology students. Specialized labs for the program can be established in due course of time. The financial resources for establishing these labs can be made available easily.

The department already has MOUs signed with two hospitals for clinical rotation of the students. The negotiations with two more hospitals (Mahroof International Hospital and Rawal general Hospital) for clinical rotation are in progress and hopefully we will be signing MOUs with these hospitals soon.

Availability of Faculty

Qualified faculty is available in the market and can be hired as needed. Many of the courses of BS Operation Theatre Technology are common with DPT, MLT, and other allied programs — for which faculty is already available at the campus.

Semester Plan

A tentative semester plan is given below ,which is also being followed by othe
semester plan will be presented to the concerned Board of Studies (BOS) for
(Course codes to be decided later; the credit hours mentioned are tentative.)

Admission Requirements

The admission to this program is open to students who have acquired a minimum qualification of Intermediate level education or equivalent in science subjects with a minimum of 50% marks. The candidates will take the Abasyn University Admission Test. The merit will be determined as per AU admission policy.

Semester I

Code	Course	CrHrs	Pre-Requisite
OT101	Anatomy	4 (3-1)	None
OT102	Physiology	4 (3-1)	None
SS218	Introduction to Psychology	3 (3-0)	None
ENG-321	English-I	3 (3-0)	None
ISL-321	Islamic Studies	2 (2-0)	None
	Total	16	

Semester II

Code	Course	CrHrs	Pre-Requisite
OT111	General Pathology Pharmacology Biochemistry	4 (3-1)	None
OT112	Computer Applications in Health Sciences	2 (2-0)	None
OT113	Pakistan Studies Fundamentals of Operation	3 (2+1)	None
ES115	Theatre Technology	3 (2-1)	None
SS118		2 (2-0)	None
OT114		2(2-0)	None
	Total	17	

Semester III

Code	Course	CrHrs	Pre-Requisite
OT201	Community Medicine / Public Health	3 (3-0)	None
OT202	General Microbiology & Sterilization	3 (2-1)	None
OT203	Principles of Surgery	3 (3-0)	None
OT204	Operation Theatre Instruments & Techniques -I	3 (2-1)	OT114
OT205	Surgical Pharmacology I	3 (2-1)	OT112
OT206	Operating Room Skills I	2(0-2)	None
	Total	18	

Semester IV

Code	Course	CrHrs	Pre-Requisite
SS211	Technical Report Writing	2 (2-0)	SS104
OT211	Surgical Procedures & Skills I	4 (3-1)	OT203
OT212	Basic Anesthesia & Techniques	3 (2-1)	None
OT213	Surgical Pharmacology II	3 (2-1)	OT205
OT214	Operation Theatre Instruments & Techniques – II	3 (2-1)	OT204
OT215	Operating Room Skills II	2 (0-2)	OT206
	Total	17	

Semester V

Code	Course	CrHrs	Pre-Requisite
OT301	Surgical Anatomy I	4 (3-1)	OT101
OT302	Clinical Pathology	3 (2-1)	OT111
OT303	Medical Physics	3 (2-1)	None
OT304	Operation Theater Technology – I	4 (3-1)	None
OT305	Operating Room Skills III	2 (0-2)	OT215
	Total	17	

Semester VI

Code	Course	CrHrs	Pre-Requisite
OT314	Operation Theater Technology – II	4 (3-1)	OT304
OT312	Sterilization and Disinfection	4 (3-1)	OT312
OT311	Surgical Anatomy II	3 (2-1)	OT301
OT315	Advanced Diagnostic Techniques	4 (3-1)	None
OT316	Critical Care	3 (2-1)	None
	Total	18	

Semester VII

Code	Course	CrHrs	Pre-requisite
OT401	Forensic Medicine	3 (3-0)	None
MT210	Biostatistics	3 (3-0)	None
OT402	Operation Theatre Management	3 (2-1)	None
OT403	Clinical & Applied Microbiology	3 (2-1)	None
OT411	Surgical Procedures & Skills II	3 (2-1)	None
OT404	Advanced Anesthesia & Techniques	3 (2-1)	None
OT405	Research Methodology and Professional Ethics	3(3+0)	None
	Total	18	

Semester VIII

Code	Course	CrHrs	Pre-requisite
OT412	Epidemiology	3(3-0)	None
OT413	Bioinformatics I	3(2-1)	None
OT414	Biomaterials & Surgical Implants	3(2-1)	None
OT415	Operation Theatre Design & Reconstruction	3(2-1)	None
OT499	Research Project / Term paper	3(0-3)	None
	Total	15	

BS NURSING (BSN)

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MISSION:

This program provides graduates with the necessary skills and knowledge to succeed in their chosen careers as educators, administrators, and clinicians. Through a variety of academic programs and research, students will be able to make a significant contribution to the health of all individuals.

VISION:

The vision of the Abasyn Institute of Nursing Sciences is to be a leader in providing the best possible care and education to improve the health of people. Through its faculty and students, the institute will produce the next generation of nurses and healthcare professionals who can address the challenges of the 21st century.

Eligibility Criteria

HSSC/A-levels/Equivalent (12 years of schooling) in Pre-Medical Group with minimum of 50% marks is the basic eligibility for the BSN program. Admitting university may conduct entry test through its own testing body or other as per its own approved screening/admission criteria.

Semester I

S. No	Course Title	CrHrs
1	Microbiology	02
2	Biochemistry	02
3	English – Functional English	03
4	Fundamentals of Nursing – I	03
5	Anatomy & Physiology – I	03
6	Ideology and Constitution of Pakistan	02
7	Information and Communication Technology	02
	Total	**17**

Semester II

S. No	Course Title	CrHrs
1	Fundamentals of Nursing – II	04
2	Quantitative Reasoning – I	03
3	Anatomy & Physiology – II	03
4	Applied Nutrition	02
5	Theoretical Basis of Nursing	02
6	Islamic Studies / Ethics	02
	Total	**16**

Semester III

S. No	Course Title	CrHrs
1	Professional Communication Skills	03
2	Clinical Pharmacology and Drug Administration – I	02
3	Medical Surgical Nursing – I	07
4	Health Assessment – I	02
5	Pathophysiology – I	03
	Total	**17**

Semester IV

S. No	Course Title	CrHrs
1	Applied Psychology	03
2	Medical Surgical Nursing – II	07
3	Health Assessment – II	02
4	Pathophysiology – II	02
5	Clinical Pharmacology and Drug Administration – II	02
6	Professional Ethics for Nurses	02
	Total	**18**

Semester V

S. No	Course Title	CrHrs
1	Civics and Community Engagement	02
2	Pediatric Health Nursing	07
3	Maternal, Neonatal and Child Health Nursing	03
4	Epidemiology	02
5	Infectious Diseases	02
	Total	**16**

Semester VI

S. No	Course Title	CrHrs
1	Principles of Teaching & Learning	03
2	Public Health Nursing	04
3	Mental Health Nursing	06
4	Introduction to Biostatistics (QR II)	03
5	Culture, Health & Society	02
	Total	**18**

Semester VII

S. No	Course Title	CrHrs
1	Leadership & Management	03
2	Critical Care Nursing	07
3	Introduction to Nursing Research	03
4	Entrepreneurship	02
5	Elective	02
	Total	**17**

Semester VIII

S. No	Course Title	CrHrs
1	Geriatric Nursing	03
2	Trends and Issues in Health Care	02
3	Expository Writing	03
4	Elective	03
5	Clinical Practicum	04
	Total	**15**

BS Food Science and Technology

Program Educational Objectives

Program Educational Objectives (PEOs) are the attributes and abilities that the graduates are expected to demonstrate within four to five years of graduation. The PEOs stipulate the high-level program objectives and provide a broad framework to design program learning outcomes, curriculum and its provision.

The BS Food Science and Technology program aims to prepare the graduates who are expected to:

1. Demonstrate excellence in profession through in-depth knowledge and skills as food technologist in industry, academia, and other food science sectors.

2. Demonstrate strong professional ethics, social responsibility, interpersonal and social skills.

3. Engage in continuous professional development and lifelong learning.

Program Learning Outcomes

The Program Learning Outcomes (PLOs) broadly describe the knowledge, skills and behaviors the students acquire in their program of study that are intended to foster the achievement of Program Educational Objectives (PEOs).

The BS Food Science and Technology program enables students to achieve the following attributes by the time of graduation:

By the end of the BS Food Science and Technology program, the graduates will have the following attributes:

a. Knowledge. An ability to apply fundamental and specialized knowledge of food science to the solution of complex food industry problems.

b.. Professional Skills. Provide professional services in various fields of the profession like industry, academia, and other food sectors.

c. Laboratory skills. Demonstrate competency in laboratory safety and in routine and specialized food laboratory skills applicable to food technology research or food chemistry methods, including accurately reporting observations and analysis.

d. Investigative skills. An ability to investigate complex issues in food science employing methodical approach including literature survey, analysis and interpretation of experimental data to derive valid conclusions.

e. Problem Solving. Identify problems, explore and prioritize potential problem-solving strategies; and design and implement a viable solution.

f.Management Skills. Demonstrate management skills and apply food science technology principles to one's own work, as a member and/or leader in a team, to manage projects in a multidisciplinary environment.

g.Communication Skills. Communicate effectively, orally as well as in writing with the food technology community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instruction.

h.Ethics. Apply ethical principles and commit to professional ethics and responsibilities and norms of industry, academia and food processing sector.

i. Lifelong Learning. Recognize importance of, and pursue, lifelong learning and further the body of knowledge in the broader context of development of the profession.

Semester I

Code	Course	CrHrs	Pre-requisite
GE/QRI621	Quantitative reasoning - I	3(3-0)	None
ICT/GE613	Information and communication technologie	3(2-1)	None
ENG/GE611	English- functional English	3(3-0)	None
ICP/GE612	Ideology and Constitution of	2(2-0)	None
FST-111	Pakistan Essentials of Biochemistry	3(3-0)	None
FST-112	Introduction to Food Science & Technology Total 17	3(2-1)	None

Semester II

Code	Course	CrHrs	Pre-requisite
GE/IS/ET 621	Islamic studies/Ethics	2(2-0)	None
GE/NS622	Natural Sciences	3(2-1)	None
FST-121	General Microbiology	3(2-1)	None
FST-122	Food Processing & Preservation	3(2-1)	None
FST-123	Basic Agriculture	3(2-1)	None
GE/SS622	Social Sciences Total 16	2(2-0)	None

Semester III

Code	Course	CrHrs	Pre-requisite
GE/QRII631	Quantitative Reasoning II	3(3-0)	GE/QRI621
FST-231	Food Process Engineering-I	3(2-1)	None
FST-232	Food Plant Layout	2(2-0)	None
FST-234	Plant Pathology	3(2-1)	None
FST-235	Food Biotechnology	3(2-1)	None
GE/AH632	Arts and Humanities	2(2-0)	None
GE/EW641	Expository Writing	3(3-0)	ENG/GE611
	Total	17	

Semester IV

Code	Course	CrHrs	Pre-requisite
GE/CCE 642	Civics and community engagement	2(2-0)	None
GE/ENT 643	Entrepreneurship	2(2-0)	None
FST-241	Fluid Mechanics	3(2-1)	None
FST-242	Food Product Development	3(2-1)	None
FST-243	Food Process Engineering-II	3(2-1)	FST231
FST-244	Food Chemistry	3(3-0)	None
FST-245	Food Toxicology and Safety	3(3-0)	None
	Total	17	

Semester V

Code	Course Title	CrHrs	Pre-requisite
FST-351	Principles of Human Nutrition	3(3-0)	None
FST-352	Food Microbiology	3(2-1)	None
FST-353	Extrusion Technology	3(2-1)	None
FST-354	Technology of Fats and Oils	3(2-1)	None
FST-355	Instrumental Techniques in Food Analysis	3(1-2)	None
FST-356	Beverage Technology **Total 18**	3(2-1)	None

Semester VI

Code	Course Title	CrHrs	Pre-requisite
FST-361	Sugar Technology Dairy	3(2-1)	None
FST-362	Technology Confectionery and	3(2-1)	None
FST-363	Snack Foods Food Quality	3(2-1)	None
FST-364	Management Food Laws &	2(2-0)	None
FST-365	Regulation Post Harvest	3(3-0)	None
FST-366	Technology Halal Foods	3(2-1)	None
FST-367		3(3-0)	None
	Total	**20**	

Semester VII

Code	Course Title	CrHrs	Pre-requisite
FST-471	Meat Technology	3(2-1)	None
FST-472	Community Nutrition	3(2 -1)	None
FST-473	Cereal Technology	3(2-1)	None
FST-481	Internship **Total 12**	3(0-3)	None

Semester VIII

Code	Course Title	CrHrs	Pre-requisite
FST-474	Food Packaging	3(2-1)	None
FST-475	Unit Operations in Food Processing	3(3-0)	None
FST-476	Milk Meat Hygiene & Public Health	3(2-1)	None
FST-486	Project **Total 12**	3(0-3)	None

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Department of Management & Social Sciences

Introduction

The Department of Management & Social Sciences is a hub of academic excellence and innovation, offering diverse undergraduate programs designed to prepare students for dynamic careers and socially responsible leadership. Since its inception in 2012, the department has maintained a strong reputation for quality education and a commitment to student success. The department provides students with a stimulating environment in which they can acquire a superior level of business, linguistic, literary, communicative, cultural, and humanistic competencies—broad enough to enable them to operate effectively and efficiently in diverse walks of life. With a focus on academic rigor, practical skills, and ethical grounding, the department empowers students to be- come competent professionals and impactful contributors to society. The department is proud to have highly qualified and experienced faculty with strong academic back- grounds and an enviable reputation. It has established a diversified academic portfolio of programs, including undergraduate degrees in Business Administration, English, Psychology, and Digital Marketing, as well as a Master's in Business Administration and a Lateral Entry Degree Program.

Vision of the department

The department is endeavoring to become leading institute to produce graduates equipped with professionalism that is to be reckoned across national boundaries through provid- ing quality education in management and social sciences that endorses excellence in research, critical thinking, creativity, and social responsibility imparting quality.

Mission of the department

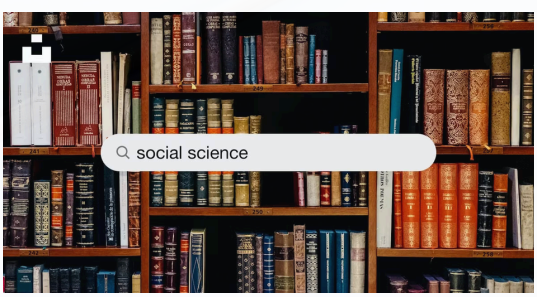
The department aims to impart quality education that fosters successful management of business and social organizations using relevant knowledge, problem-solving skills, analytical abilities, and sense of social responsibility.

Eligibility criteria

1. Intermediate or Equivalent Qualification: Applicants must have a minimum of 45%

marks in Intermediate (FSc, ICS, ICom, FA, or an equivalent qualification).

2. ForA-levelstudents,aminimumofthreefull-creditcoursesisrequired,alongwithan equivalency certificate from the Inter Board Committee of Chairmen (IBCC), which must be submitted within two months of the admission offer.



Semester I

Course Code	Course Title	CrHrs	Pre-requisite
FA311	Introduction to Fine Arts	2+0	None
ENG 312	Functional English	3+0	None
MT 313	Exploring Quantitative Skills	3+0	None
SS 314	Islamic Studies	2+0	None
SS 315	Ideology and Constitution of Pakistan	2+0	None
MG 316	n to Business	3+0	None
MG 317	Principles of Management	3+0	None
	Total	18	

Semester II

Course Code	Course Title	CrHrs	Pre-requisite
ENG 321	Effective Writing Skills	3+0	ENG 312
MT 322	Tools for Quantitative Reasoning	3+0	MT 313
ICT 323	Applications of ICT	2+1	None
MG 324	Principles of Accounting	3+0	None
MG 325	Principles of Marketing	3+0	None
MG 326	Micro Economics	3+0	None
	Total	18	

Semester III

Course Code	Course Title	CrHrs	Pre-requisite
CCE 411	Leadership and Community Engagement	2+0	None
SS 412	Mass Communication	2+0	None
MG 413	Marketing Management	3+0	MG 325
MG 414	Financial Accounting	3+0	MG 324
MG 415	Macro Economics	3+0	MG 326
MG 416	Business Finance	3+0	None
	Total	16	

Semester IV

Course Code	Course Title	CrHrs	Pre-requisite
NS 421	The Science for Global Challenges	3+0	None
MG 422	Entrepreneurship	3+0	None
CS 423	E-Commerce	3+0	MG 416
MT 424	Business Statistics	3+0	MT 322
MG 425	Financial Management	3+0	MG 416
MG 426	Cost Accounting	3+0	MG 414
	Total	18	

Semester V

Course Code	Course Title	CrHrs	Pre-requisite
MT 511	Inferential Statistics	2+1	MT 424
MG 512	Human Resource Management	3+0	MG 317
MG 513	Business & Corporate Law	3+0	None
CS 514	Management Information Systems	3+0	ICT 323
MG 515	Business Ethics	3+0	None
MG 516	Consumer Behavior	3+0	MG 413
	Total	17	

Semester VI

Course Code	Course Title	CrHrs	Pre-requisite
SS 521	Organizational Behavior	3+0	MG 207
MG 522	International Business	3+0	None
MG 523	Management Business Research Methods	3+0	None
MG 524	Strategic Management	3+0	MG 207
MG 525	Major Elective 1	3+0	None
MG 526	Major Elective 2	3+0	None
	Total	18	

Semester VII

Course Code	Course Title	CrHrs	Pre-requisite
MG 611	Project Management	3+0	MG 207
MG 612	Small and Medium Enterprise Management	3+0	None
MG 613	Major Elective 3	3+0	None
MG 614	Major Elective 4	3+0	None
	Total	12	

Semester VIII

Course Code	Course Title	CrHrs	Pre-requisite
MG 621	Production and Operations Management	3+0	None
MG 622	Major Elective 5	3+0	None
MG 623	Capstone Project	3+0	None
	Total	9	

ABASYN UNIVERSITY
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Associate Degree in Business Administration

Introduction

The Associate Degree in Business Administration (ADBA) is designed to provide students with a foundational understanding of modern socio-economic, politi- cal, and business realities that are crucial for navigating the complexities of the global business environment. The program integrates key knowledge of the cor- porate world, enabling students to evaluate and address management-related problemsholistically,ratherthaninisolation.This approachpreparesstudents to understand the interconnectedness of business, economics, and politics in the global context, and equips them with the skills needed to make informed and strategic decisions in their professional careers.

Program Education Objectives (PEOs)

The program is aimed to attain following objectives:

1. A variety of organizing, planning, controlling, team building, and communi- cating skills necessary to effectively manage and lead organization in a di- verse and dynamic environment.

2. Problem analysis and decision-making skills required for handling challenges

faced by modern day business enterprise.

3. Ability to design and propose effective policies for value creation through core business processes of organization.

4.To develop entrepreneurial skills and promote creative thinking so that they

may start their own businesses.

5. Use of quantitative and qualitative tools to identify potential business oppor-

tunities and successfully materialize new entrepreneurial ventures.

Eligibility Criteria

1. Applicants who have passed Intermediate Examination or equivalent from a recognized Board or Institutions securing at least 45% marks in aggregate are eligible to apply for admission in ADP Program.

2. Candidates who have completed O & A levels are required to submit IBCC

Equivalence Certificate at the time of submission of application.

Semester I

Course Code	Course Title	CrHrs	Pre-requisite
FA-311	Introduction to Fine Arts	2	None
ENG-312	Functional English	3	None
MT-313	Exploring Quantitative Skills	3	None
SS-314	Islamic Studies	2	None
SS-315	Ideology & Constitution of Pakistan	2	None
MG-316	Introduction to Business	3	None
MG-317	Principles of Management	3	None
	Total	18	

Semester II

Course Code	Course Title	CrHrs	Pre-requisite
ENG-321	Effective Writing Skills	2	None
MT-322	Tools for Quantitative Reasoning	2	None
ICT	Applications of ICT	3	MG-325
MG-324	Principles of Accounting	3	MG-324
MG-325	Principles of Marketing	3	MG-326
MG-326	Micro Economics	3	None
	Total	18	

Semester III

Course Code	Course Title	CrHrs	Pre-requisite
CCE-411	Leadership and Community Engagement	3	SS-113
SS-412	Mass Communication	3	MT-313
MG-413	Marketing Management	2+1	None
MG-414	Financial Accounting	3	None
MG-415	Macro Economics	3	None
MG-416	Business Finance	3	None
	Total	16	

Semester IV

Course Code	Course Title	CrHrs	Pre-requisite
NS-421	The Science for the Global Challenges	2+1	None
MG-422	Entrepreneurship	3	None
CS-423	E-Commerce Business	3	IST-323
MT-424	Statistics	3	MT-313
MG-425	Financial Management	3	MG-414
MG-426	Cost Accounting	3	MG-416
	Total	18	

ABASYN UNIVERSITY
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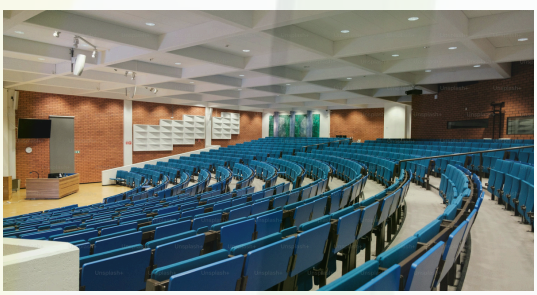
BBA 5th Semester

Lateral Entry Degree Program

Introduction

As per guidelines given by the Higher Education Commission of Pakistan in its undergrad- uate education policy 2020 (No.1-32/PERU/UGE Policy/HEC/2020) Abasyn University is going to offer lateral entry admissions in the 5th semester of its BBA program. Thus, graduates having 2 Year Associate Degree in Business Administration or 14 years of equivalent business education can avail this opportunity to improve their qualification by joining BBA program.

Eligibility Criteria



1. Graduates having minimum CGPA 2.20/4.00 or 53% marks in 2 Year Associate Degree in Business Administration OR

2. 14 years of equivalent business education are eligible to apply for admission in BBA (5th semester). Moreover, the candidates will be admitted in 5th semester of BBA as per HEC guidelines and university admission policy.

3. The students who will join BBA 5th semester having qualification other than ADP (Business Administration) e.g. ADP (Commerce) ADP (Accounting & Finance) or equivalent are required to take at least 4 deficiency courses of 3 credit hours each. As per the decision of the syndicate the deficiency courses will be determined by the Committee constituted by the Dean FMSS. However, the deficiency courses will not be offered to those students who have already studied these courses in their Associate Degree Program.

Semester V

Course Code	Course Title	CrHrs	Pre-requisite
MT–511	Inferential Statistics	3	None
MG–512	Human Resource Management	3	None
MG–513	Business & Corporate Law	3	None
CS–514	Management Information Systems	3	CS-125
MG–515	Business Ethics	3	None
MG–516	Consumer Behavior	3	None
	Total	18	

Semester VI

Course Code	Course Title	CrHrs	Pre-requisite
SS–521	Organizational Behavior	3	MG-207
MG–522	International Business	3	None
MG–523	Business Research Methods	3	None
MG–524	Strategic Management	3	MG-207
MG–525	Major Elective 1	3	None
MG–526	Major Elective 2	3	None
	Total	18	

Semester VII

Course Code	Course Title	CrHrs	Pre-requisite
MG–611	Project Management	3	MG-207
MG–612	Small and Medium Enterprise Management	3	None
MG–613	Major Elective 3	3	None
MG–614	Major Elective 4	3	None
	Total	12	

Semester VIII

Course Code	Course Title	CrHrs	Pre-requisite
MG–621	Production and Operations Management	3	None
MG–622	Major Elective 5	3	None
MG–623	Capstone Project	3	Capstone Project-1
	Total	9	

ABASYN UNIVERSITY
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Master of Business Administration (MBA) Program

Introduction

The Master of Business Administration (MBA) program offers advanced education in management and leadership, blending theoretical knowledge with practical skills. It prepares students to tackle complex business challenges and excel in senior management roles. The program emphasizes:

Program Education Objectives (PEOs)

Develop intellectual ability, executive personality, and managerial skills through a blend of business and general education. Provide comprehensive management education aligned with global best practices, adaptable to
local entrepreneurial and societal contexts.

Progress from general management education to specialized knowledge in diverse business fields.

Possess knowledge of current theory and techniques in major business disciplines.
Exhibit leadership skills and effective teamwork abilities.

Understand ethical implications of business decisions and recognize ethical dilemmas.
Demonstrate professional written and verbal communication skills.

Apply critical thinking and multi-disciplinary problem-solving skills.

Showcase disciplined managerial skills, including analysis, planning, and implementation, while considering technology, globalization, emerging markets, and diversity.

Eligibility Criteria

16 years of undergraduate qualification with at least 2.5 CGPA from an HEC-recognized university/institute (per HEC roadmap).

Semester I

Course Code	Course Title	Cr Hrs
MG–511	Business Economics	3
MT–512	Business Mathematics & Statistics	3
MG–513	Financial Accounting – I	3
MG–514	Introduction to Management	3
MG–515	Principle of Marketing	3
	Total 15	

Semester II

Course Code	Course Title	Cr Hrs
MG–521	Human Resource Management	3
MG–522	Business Finance	3
MG–523	Financial Accounting – II	3
MG–524	Marketing Management	3
MG–525	Managerial Economics	3
	Total 15	

Semester III

Course Code	Course Title	Cr Hrs
MG–611	Advanced Research Method	3
MG–612	Innovation & Entrepreneurship	3
MG–613	Strategic Marketing	3
MG–614	Financial Management	3
MG–615	Project Management	3
	Total 15	

Semester IV

Course Code	Course Title	Cr Hrs
MG–621	Strategic Management	3
MG–622	International Business & Trade	3
MG–623	Applied Statistics in Management	3
MG–624	Elective I	3
MG–625	Elective II	3
MG–626	Corporate Social Responsibility	3
	Total 18	

BS
Accounting & Finance

The BS (Accounting & Finance) is a highly specialised degree, preparing the graduate as having expertise in Accountancy and Fi- nance. The students will acquire the knowl- edge and technical skills needed to analyse accounting/finance and business problems, and they will understand how best to com- municate and use financial information to support business decisions. The degree of- fers specialization in accounting and/or Fi- nance.

With the management of financial information underpinning all business activities, there are more employment and career opportunities in accounting and finance than many other areas of study. This degree will prepare students for a rewarding career in any sector of the economy. The graduates may work as a Financial Accountant, Forensic Accountant, Management Accountant, Auditor, Chief Financial Officer, Financial Advisor and Tax Specialist.

Entry Requirements Students with FA/FSc. or equivalent qualification and having at least 2nd division, securing 45% marks in aggregate will be eligible to apply. Qualifying the Abasyn entry test for admission and interview will be compulsory. Candidates scoring less than 40% marks, each in the test and interview, shall stand disqualified for admission. Candidates who have secured at least 40% marks in the NAT test are also eligible.

Semester Plan

Semester I

Code	Title	CrHrs	Pre-Req.
SS – 111	Functional English	3	None
MG – 112	Introduction to Business	3	None
MG – 113	Principles of Management	3	None
FA – 114	Financial Accounting – I	3	None
SS – 115	Pakistan Studies	2	None
SS – 116	Islamic Studies/Ethics (for Non-Muslims)	2	None
	Total	16	

Semester II

Code	Title	CrHrs	Pre-Req.
MG – 121	Principles of Marketing	3	None
FA – 122	Financial Accounting – II	3	FA – 114
MG – 123	Principles of Microeconomics	3	None
MT – 124	Business Mathematics	3	None
SS – 125	Effective Writing Skills	3	SS – 111
CS – 126	IT in Business	3	None
	Total	18	

Semester III

Code	Title	CrHrs	Pre-Req.
MT – 211	Business Statistics	3	MT 124
CA – 212	Cost Accounting	3	FA – 114
MG – 213	Principles of Macroeconomics	3	MG – 123
SS – 214	Business Communication	3	SS 111
BL – 215	Business Law	3	None
BF – 216	Business Finance	3	None
	Total	18	

Semester IV

Code	Title	CrHrs	Pre-Req.
MG – 221	Inferential Statistics	3	MT 211
MA – 222	Management Accounting	3	CA 212
CS – 223	E-Commerce	3	CS 126
MG – 224	Financial Institutions and Capital Market	3	None
FM – 225	Financial Management	3	None
MG – 226	Central, Commercial and Corporate Banking	3	None
	Total	18	

Semester V

Code	Title	CrHrs	Pre-Req.
PM – 311	Performance Management	3	MA – 222
AUD – 312	Auditing	3	None
MG – 313	Accounting Information System	3	None
CF – 314	Corporate Finance	3	MG – 225
MG – 315	Human Resource Management	3	MG – 1131
AA – 316	Advanced Accounting	3	FA – 122
	Total	18	

Semester VI

Code	Title	CrHrs	Pre-Req.
BT – 321	Business Taxation	3	None
MG – 322	Behavioural Finance	3	CS – 126
MG – 323	Business Research Methods	3	None
AUD – 324	Advanced Auditing	3	AUD- 312
FRA – 325	Financial Reporting and Analysis	3	AA- 316
	Total	15	

Semester VII

Code	Title	CrHrs	Pre-Req.
CL – 411	Corporate Law	3	BL – 215
AT – 412	Advanced Taxation	3	BT – 321
AFR – 413	Elective – 1	3	Concern
	FRM – 414Elective – 2	3	Concern
MG – 415	Internship/Project Report – I	3	
	Total	15	

Semester VIII

Code	Title	CrHrs	Pre-Req.
MG – 421	Econometrics Application in Business	3	None
		3	Concern
IAP – 423	AMA – 422Elective –	3	Concern
ACF – 424	3 Elective – 4 Elective – 5	3	Concern
MG – 425	Internship/Project Report – II	3	
	Total	15	

Semester Plan

1. Advanced Managerial Accounting
Corporate Governance
2. 3. Financial Statement Analysis 4. Advance Financial Reporting 5. Essential Software 6. Tax Management and Optimization 7. Any other course 8. Financial Risk Management
9. Investment Analysis and Portfolio Management
10. Advance Corporate Finance
11. Financial Econometrics
12. Public Finance Financial Management
13. Mergers and Acquisitions
14. Case Studies in Finance
15. Financial Modelling
16. Entrepreneurial Finance
17. Marketing of Financial Services
18. Strategic Financial Management
19. Contemporary Issues in finance
20. Regulations and Financial Markets
21. Islamic Banking and Finance
22. Any other course

The department may offer courses from a variety of electives in an area of specialization depend- ing upon the availability of faculty and changing market trends. The list of elective courses is not exhaustive and new courses may be added as per market requirements.

BS English

BS English is a rigorous 4-year degree program that aims at developing learners' ability to critically read and analyze linguistics and literary texts in their historical, socio- political, cultural, and philosophical contexts. The study of literature blended with the study of English language helps to improve the linguistic and pedagogical competence of the students. The degree can lead to a wide range of careers. In immediate and practical terms, the students become equipped for an enormous range of careers and postgraduate opportunities. The BS English graduates can pursue careers in translation, teaching and academics, professional writing, arts and media, journalism, administration, public relations, leisure and tourism management, international relations, and marketing.

Program Education Objectives

The BS English aims to prepare the graduates who are expected to:

1. Be able to use English language and communication skills acquired in pursuance of a successful career in research, teaching, print media, television and other related areas.
2. Keep abreast with current developments and issues in English language and Communication studies; pursue further education in English, Linguistics and Communication and/or carry out independent research in their area(s) of specialization.
3. Contribute positively to society through responsible, professional, and ethical practice in pursuance of their career and research.

Program Learning Outcomes

The students, at the time of graduation, will have the ability to:

- Understand, analyze and interpret literary texts through close and critical reading. Place literature in relation to its historical, cultural, intellectual, theoretical, aesthetic, social and political contexts.
- Locate, evaluate, and use relevant scholarship, literary criticism, and cultural commentary, both in print and online.
- Engage in public discourse through careful listening, respectful questioning, and thoughtful speaking in both formal and informal settings.
- Recognize literature as a vehicle for both individual and cultural expression that can engage the imagination, elicit feeling, express value, and enable inquiry.
- Identify the characteristics of different forms of literature including the major genres and hybrid forms.
- Construct clear, grammatical sentences and produce well-organized texts that exhibit an attention to audience, genre, and purpose and that follow the conventions of logical argumentation.
- Understand and articulate general issues concerning the nature and function of language. These include the basic mechanisms common to all languages: the domains of phonetics, phonology, morphology, syntax, semantics, and pragmatics.
- Analyze the structure and function of language as used in natural discourse.
- Understand and evaluate current research.

Semester II

Code	Title	CrHrs	Pre-Req.
TBA	Principles of Management	3+0	None
TBA	English III (Effective Writing skills)	3+0	English-I
TBA	Business Mathematics and Statistics	3+0	None
TBA	Financial Accounting & IT	2+1	Introduction to Computing
TBA	Introduction to Digital Marketing	3+0	None
TBA	Introduction to Psychology Total 18	3+0	None

Semester III

Code	Title	CrHrs	Pre-Req.
TBA	Business Communication	3+0	English III
TBA	Managerial Economics	3+0	None
TBA	E-Human Resource Management	3+0	Principles of Management
TBA	Marketing Management	3+0	Principles of Marketing
TBA	Graphic Design & Animation	2+1	None
TBA	Freelancing & Creative Consultancy Total 18	2+1	None

Semester IV

Code	Title	CrHrs	Pre-Req.
TBA	Creative Content Writing	2+1	Business Communication
TBA	Digital Economy of Pakistan	3+0	Managerial Economics
TBA	Website Design & Development	2+1	Graphic Design & Animation
TBA	Online Consumer Behaviour	3+0	Marketing Management
TBA	E-Commerce	3+0	Introduction to Computing
TBA	Financial Management Total 18	3+0	Financial Accounting & IT

Semester V

Code	Title	CrHrs	Pre-Req.
TBA	Entrepreneurship	3+0	None
TBA	Digital Marketing Campaign	2+1	Introduction to Digital Marketing
TBA	Social Media Marketing	3+0	Introduction to Digital Marketing
TBA	Organizational Behaviour	3+0	E-Human Resource Management
TBA	Marketing Research Methods	3+0	Marketing Management
TBA	Digital Brand Management Total 18	3+0	Introduction to Digital Marketing

Semester VI

Code	Title	CrHrs	Pre-Req.
TBA	Sociology	3+0	None
TBA	Business Ethics	3+0	None
TBA	Cyber Law	2+1	None
TBA	Cyber Security	3+0	None
TBA	SEO Total 15	2+1	None

Semester VII

Code	Title	CrHrs	Pre-Req.
TBA	International Business Management	3+0	None
TBA	Digital Sales Management	3+0	Introduction to Digital Marketing
TBA	Elective-I	3+0	None
TBA	Elective-II	3+0	None
TBA	Digital Marketing Project-I Total 15	3+0	None

Semester VIII

Code	Title	CrHrs	Pre-Req.
TBA	Business policy Working in	3+0	None
TBA	Virtual Teams Elective-III	3+0	None
TBA	Elective-Iv Digital	3+0	None
TBA	Marketing Project-II	3+0	None
TBA	Total 15	3+0	EC27

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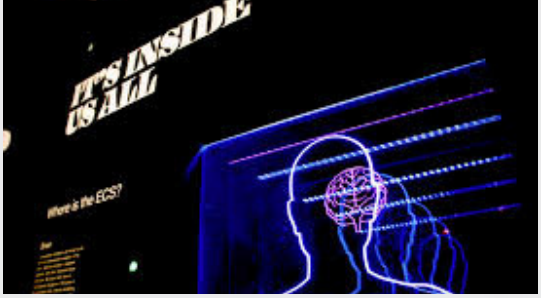
BS Psychology



The BS English is 8 semesters (4 years) program offered by the department of Management and Social Sciences. The BS Psychology program integrates the scientific foundation of psychology with a strong background of humanities and basic sciences to better prepare students for the advanced training in psychology, medicine, cognitive science, neuroscience, and other related disciplines.

This degree can lead to a wide range of careers. They can go on to work as a psychologist, advertising manager, admission and career counsellor, psychiatrist, child welfare worker, gerontologist, market research analyst, public relations manager, social worker, speech pathologist, or numerous other occupations. Many progress to related postgraduate courses.

Semester Plan

Semester I

Code	Course	CrHrs	Pre-Requisite
SS104	English-I (Comprehension)	3+0	None
SS118	Pakistan Studies Basic	2+0	None
MT100	Mathematics Introduction	3+0	None
CS100	to Computing Introduction	3+0	None
PSY101	to Psychology General	3+0	None
XXxxx	Elective-I Total 17	3+0	None

Semester II

Code	Course	CrHrs	Pre-Requisite
SS203	English-II (Communication Skills)	3+0	SS104
SS108	Islamic Studies/Ethics Introduction	2+0	None
MT205	to Statistics History and Schools of	3+0	None
PSY102	Psychology General Elective-II	3+0	None
XXxxx	General Elective-III	3+0	None
XXxxx	Total 17	3+0	None

Semester III

Code	Course	CrHrs	Pre-Requisite
SS211	English-III (Technical Report Writing)	3+0	SS203
MG308	Business Law	3+0	None
PSY201	Neurological Basis of Behavior	3+0	None
PSY203	Personality Theories-I	3+0	None
XXxxx	General Elective-IV	3+0	None
XXxxx	General Elective-V Total 18	3+0	None

Semester IV

Code	Course	CrHrs	Pre-Requisite
PSY204	Introduction to Social Psychology	3+0	PSY101
PSY213	Personality Theories-II	3+0	None
PSY202	Experimental Psychology	3+0	None
PSY215	Elementary Statistics for Psychology	3+0	None
SS240	Introduction to Logic	3+0	None
XXxxx	General Elective-VI Total 18	3+0	None

Semester V

Code	Course	CrHrs	Pre-Requisite
PSY301	Mental Health and Psychopathology-I	3+0	None
PSY302	Psychological Testing-I	3+0	None
PSY303	Research Methods in Psychology-I	3+0	None
PSY304	Applied Statistics for Psychology	3+0	None
PSY305	Advanced Social Psychology	3+0	None
XXxxx	General Elective-VII Total 18	3+0	None

Semester VI

Code	Course	CrHrs	Pre-Requisite
PSY311	Mental Health and Psychopathology-II	3+0	None
PSY303	Developmental Psychology	3+0	None
PSY312	Psychological Testing-II	3+0	None
PSY313	Research Methods in Psychology-II	3+0	None
PSY314	Industrial Organizational Psychology Total 15	3+0	None

Semester VII

Code	Course	CrHrs	Pre-Requisite
PSY401	Educational Psychology	3+0	None
PSY402	Positive Psychology	3+0	None
PSY403	Cross Cultural Psychology	3+0	None
PSYxxx Elective-I		3+0	None
PSYxxx Elective-II		3+0	None
XXxxx	Internship Total 18	3+0	None

Semester VIII

Code	Course	CrHrs	Pre-Requisite
PSY404	Cognitive Psychology	3+0	None
PSYxxx	Elective-III	3+0	None
PSYxxx	Elective-IV	3+0	None
PSY499	Research Project Total 15	0+6	None

Total Credit Hours 136

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Department of Engineering Technology

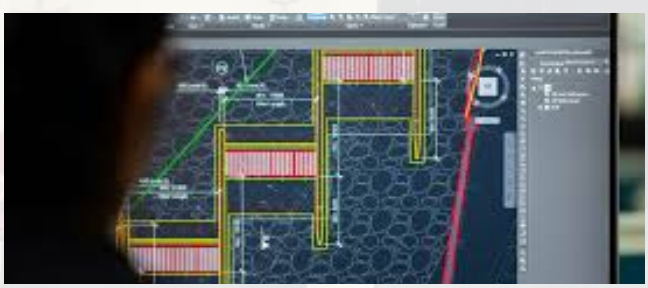
Introduction

Department of Engineering Technology offers 4-year BSc Engineering in civil, electrical and mechanical technologies. Equipped with state-of-the-art laboratories and qualified faculty, the technology programs aim at pro-viding strong practical skills with theoretical back ground to enable student to pursue successful careers in their respective fields.

B.Sc Civil Engineering Technology

The B.Sc Civil Engineering Technology program has been carefully designed to enable graduates to undertake planning, designing, construction, operation and maintenance of urban and rural infrastructure by applying his/her knowledge in all stages of Civil Engineering projects. The students are extensively exposed to the real civil engineering projects that equip them to work in an industrial environment.

B.Sc Civil Engineering Technology is a 4 years (139 credit hours) program with an average work load of 15-18 credit hours per Semester.



Program Educational Objectives (PEOs)

The graduates of BSc. Civil Engineering Technology will:
PEO-1: Engage in civil technology profession based upon their knowledge and technical skills, with global, societal, and sustainable perspectives.

PEO-2: Demonstrate high professional responsibility, ethics, good leadership, effective communication, and teamwork in their professional career.

PEO-3: Engage in professional development by pursuing higher studies, independent learning in Civil Engineering Technology or other professional opportunities to achieve excellence while economically contributing towards society.

Program Learning Outcomes (PLOs)

PLO-1: Engineering Technology Knowledge
An ability to apply knowledge of mathematics, natural science, Engineering Technology fundamentals, and an Engineering Technology specialization to defined and applied Engineering Technology procedures, processes, systems or methodologies.

PLO-2: Problem Analysis
An ability to identify, formulate, research literature, and analyze broadly-defined Engineering Technology problems reaching substantiated conclusions using analytical tools appropriate to the discipline or area of specialization.

PLO-3: Design/Development of Solutions
An ability to design solutions for broadly-defined Engineering Technology problems and contribute to the design of systems, components, or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PLO-4: Investigation
An ability to conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, databases, and literature; design and conduct experiments to provide valid conclusions.

PLO-5: Modern Tool Usage
An ability to select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly-defined Engineering Technology problems, with an understanding of the limitations.

PLO-6: The Engineering Technologist and Society
An ability to demonstrate understanding of the societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to Engineering Technology practice and solutions to broadly-defined problems.

PLO-7: Environment and Sustainability
An ability to understand and evaluate the sustainability and impact of Engineering Technology work in the solution of broadly-defined problems.

Engineering Technology problems in societal and environmental contexts.

PLO8: Ethics:

Understand and commit to professional ethics and responsibilities and norms of engineering technology practice.

PLO9: Individual and Team Work:

An ability to Function effectively as an individual, and as a member or leader in diverse teams.

PLO10: Communication:

An ability to communicate effectively on broadly defined engineering technology activities with the engineering technologist community and with society at large.

to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PLO11: Project Management:

An ability to demonstrate knowledge and understanding of Engineering Technology management principles and apply these to one's own work, as a member or leader in a team and to manage projects in multidisciplinary environments.

PLO12: Lifelong Learning:

An ability to recognize the need for, and have the ability to engage in independent and life-long learning in specialist Engineering Technologies.

Semester Plan

Semester I

Code	Course Title		CrHrs	Pre- Requisite
CT-154	Materials and Methods of Construction		2+2	None
CT-114	Civil Engineering Drawing		1+3	None
CT-144	Applied Mechanics		2+2	None
CT-121	Calculus -I		3	None
CH-113	Islamic Studies	Total 17	2	None

Semester II

Code	Course Title		CrHrs	Pre- Requisite
CT-124	Concrete Technology		2+2	None
CT-134	Surveying		2+2	None
CH-131	Pakistan Studies		1	None
CH-114	English-I		3	None
CS-124	Computer Applications	Total 15	2+1	None

Semester III

Code	Course Title	CrHrs	Pre- Requisite
CT-244	Mechanics of Solid	2+2	None
CT-214	Quantity Surveying and Contract Documents	1+3	None
CT-224	Soil Mechanics	2+2	None
CT-234	Fluid Mechanics	2+2	None
CS-213	Calculus - II Total 19	3	None

Semester IV

Code	Course Title	CrHrs	Pre- Requisite
CT-254	Transportation Engineering	2+2	None
CT-264	Water supply and waste water Management	2+2	None
CT-214	Environmental Management	2+1	None
CT-273	Theory of Structures	1+3	None
CM-221	Occupational Health and Safety	1	Nonei
CH-212	English-III Total 19	3	None

Semester V

Code	Course Title	CrHrs	Pre- Requisite
CT-314	Hydrology	2+2	None
CT-324	Reinforced Concrete Structures	2+2	None
CT-333	Construction and Hydraulic Machinery	2+1	None
CT-344	Computer Aided Building Modeling and Design	1+3	None
CT-353	Foundations Engineering Total 17	2+1	None

Semester VI

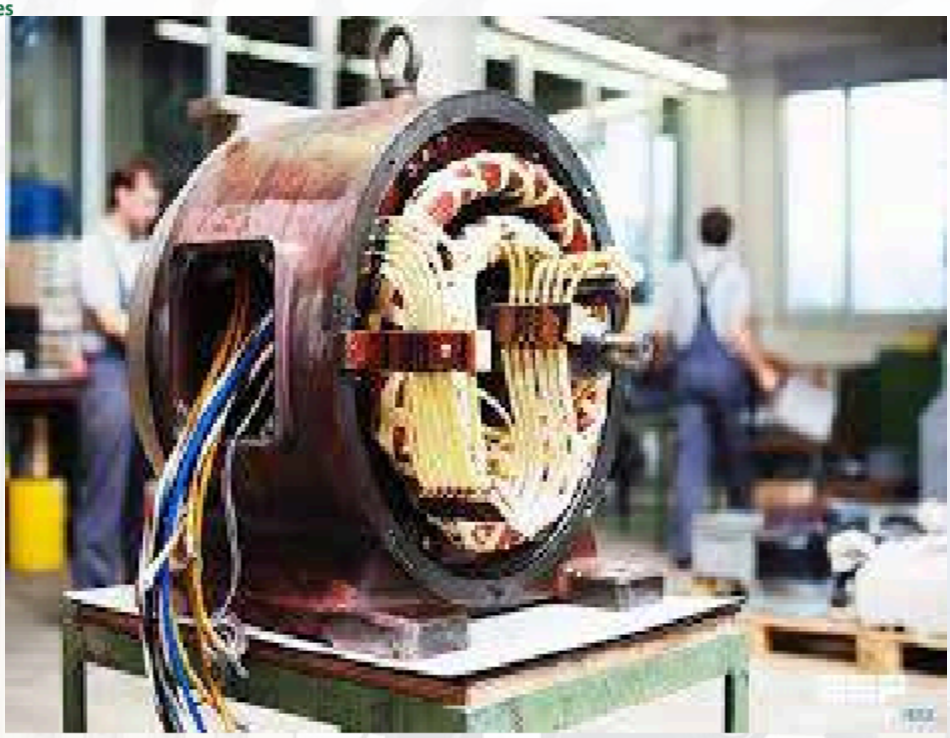
Code	Course Title	CrHrs	Pre- Requisite
CT-363	Pre-Stressed & Precast Concrete	2+1	None
CT-373	Geology and Earthquake Engineering	2+1	None
CT-383	Irrigation and Hydraulic Structures	2+1	None
CT-393	Steel Structures	2+1	None
CM-313	Project Management Total 20	2+1	None

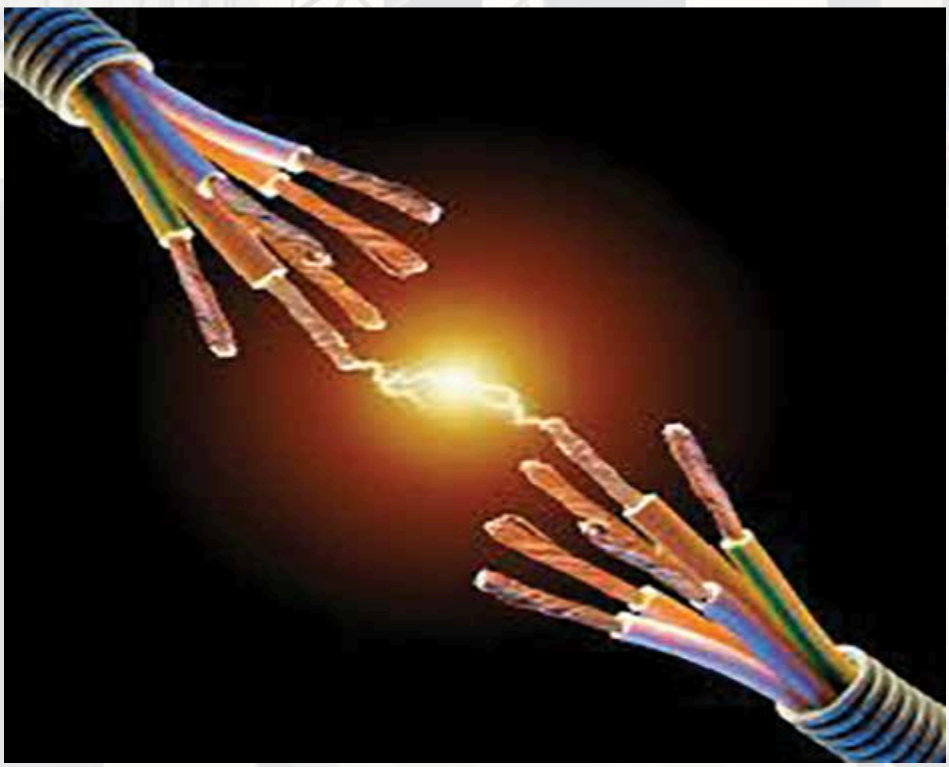
Semester VII

Code	Course Title	CrHrs	Pre- Requisite
CT 4115	Supervised Training Program – I	15	None
CT 393	Project -I	3	None
	Total 18		

Semester VIII

Code	Course Title	CrHrs	Pre- Requisite
CT4216	Supervised Training Program - II	15	None
CT 394	Project -II	3	None
	Total 18		
	Total Credit Hours	143	





B.Sc Electrical Engineering Technology

The BSc Electrical Engineering Technology program has been carefully designed to enable graduates to undertake operation and maintenance of electrical appliances by applying his/her knowledge in all stages of Electrical Engineering projects. The students are extensively exposed to the real electrical engineering projects that equip them to work in an industrial environment.

BSc Electrical Engineering Technology is a 4 years (137 credit hours) program with an average work load of 15-18 credit hours per Semester.

Program Educational Objectives (PEOs)

The graduates of BSc. Electrical Engineering Technology will:

PEO-1: Show professional competence in Electrical Engineering Technology by demonstrating technical skills and design of solutions with global and sustainable perspectives.

PEO-2: Show the utilization of knowledge and skills of modern tools and technologies in electrical engineering technology.

PEO-3: Follow ethical and social aspects, while under taking technical task(s), individually or via interdisciplinary team work.

PEO-4: Demonstrate continued professional development through pursuit of higher education, participation and membership in professional organization and/or striving for achievement of state of art of the electrical technology profession.

Program Learning Outcomes (PLOs)

PLO-1: Engineering Technology Knowledge (SA1):

An ability to apply knowledge of mathematics, natural science, Engineering Technology fundamentals and Engineering specialization to defined and applied Engineering Technology procedures, processes, systems or methodologies.

PLO-2: Problem Analysis (SA2):

An ability to Identify, formulate, research literature and analyze broadly-defined Engineering Technology problems reaching substantiated conclusions using analytical tools appropriate to the discipline or area of specialization.

PLO-3: Design/Development of Solutions (SA3):

An ability to design solutions for broadly- defined Engineering Technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PLO-4: Investigation (SA4):

An ability to conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.

PLO-5: Modern Tool Usage (SA5):

An ability to Select and apply appropriate techniques, resources, and modern technology and IT tools, including prediction and modelling, to broadly-defined Engineering Technology problems, with an understanding of the limitations.

PLO-6: The Engineering Technologist and Society (SA6):

An ability to demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to Engineering Technology practice and solutions to broadly defined Engineering Technology problems.

PLO-7: Environment and Sustainability (SA7):

An ability to understand and evaluate the sustainability and impact of Engineering Technology work in the solution of broadly defined Engineering Technology problems in societal and environmental contexts.

PLO-8: Ethics (SA8):

Understand and commit to professional ethics and responsibilities and norms of Engineering Technology practice

PLO-9: Individual and Team Work (SA9):

An ability to Function effectively as an individual, and as a member or leader in diverse teams.

PLO-10: Communication (SA10):

An ability to communicate effectively on broadly defined Engineering Technology activities with the Engineering Technologist community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PLO-11: Project Management (SA11):

An ability to demonstrate knowledge and understanding of Engineering Technology management principles and apply these to one's own work, as a member or leader in a team and to manage projects in multidisciplinary environments.

PLO-12: Lifelong Learning (SA12):

An ability to recognize the need for, and have the ability to engage in independent and life-long learning in specialist Engineering Technologies.

Semester Plan

Semester I

Code	Course	CrHrs	Pre- Requisite
ES-113	Calculus - I	3	None
ES-123	Applied Physics	2+1	None
ET-114	Linear Circuits Analysis	2+2	None
EH-131	Islamic Studies	1	None
ET-133	Computer Applications	1+2	None
ET-123	Engineering Drawing Total 16	1+2	None

Semester II

Code	Course	CrHrs	Pre- Requisite
ES-143	Applied Chemistry	2+1	None
EH-151	Pak-Studies	1	None
ET-144	Electronics	2+2	None
MT-153	Basic Mechanical Technology	2+1	None
ET-162	Power Generation Systems	2	None
ET-174	DC Machines &Transformers Total 17	2+2	None

Semester III

Code	Course	CrHrs	Pre- Requisite
ES-213	Calculus - II	3	None
EH-222	Communication Skills	2	None
ET-214	Electrical Instruments and Measurements	2+2	None
ET-224	AC Circuits Analysis	2+2	None
ET-234	Digital Electronics Total 17	2+2	None

Semester IV

Code	Course		CrHrs	Pre- Requisite
ET-244	AC Machines		2+2	None
ET-252	Electro-Magnetic Fields		2	None
ET-263	Electrical Power Transmission		2+1	None
ET-273	Electrical Power Distribution and Utilization		2+1	None
ET-284	Power Electronics	Total 16	2+2	None

Semester V

Code	Course		CrHrs	Pre- Requisite
ET-313	Micro-Processor Theory and Interfacing		2+1	None
ET-323	Switch Gear & Protective Devices		2+1	None
ET-334	Communication Technology		2+2	None
ET-343	Control Technology		2+1	None
EH312	Total Quality Management		2	None
HUM-402	Occupational Health Safety Environment	Total 17	2	None

Semester VI

Code	Course		CrHrs	Pre- Requisite
ET-353	Power System Analysis		3	None
ET-353	Data & Computer Communication		2+2	None
ET-373	High Voltage Technology		2+1	None
ET-383	Industrial Drives and PLC		2+2	None
EH-322	Technical Report Writing	Total 16	2	None

Semester VII

Code	Course		CrHrs	Pre- Requisite
ET 482	Supervised Training Program - I		15	None
ET 413	Project -I	Total 18	3	None

Semester VIII

Code	Course		CrHrs	Pre- Requisite
ET 483	Supervised Training Program - II		15	None
ET 414	Project -II	Total 18	3	None

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Bachelor of Engineering Technology (BET) in Software

Program Overview:

Software Engineering Technology is the discipline concerned with the systematic development and automation of high-quality, large-scale, efficient, and economical software systems. The BET in Software aims to provide students with a solid foundation in modern technologies and hands-on experience in applying engineering principles across the full software development life cycle — including requirements gathering, analysis, design, development, testing, integration, and maintenance.
The program emphasizes the integration of modern tools and automation, along with the development of professional competence, problem-solving abilities, and collaborative skills, in alignment with the department's mission

To provide quality education by integration of modern technologies, automation and implementation, while developing professional competence, social responsibility, and collaborative skills.

2. Program Mission:

To provide quality education in software engineering technology by integrating modern development tools and automation techniques with core theoretical knowledge and practical experience. The program cultivates professional competence, teamwork, social responsibility, and lifelong learning, empowering graduates to deliver reliable and innovative software solutions that meet the evolving demands of industry and society.

Eligibility Criteria:

Candidates seeking admission to the BS Software Engineering Technology program must meet one of the following criteria

Diploma of Associate Engineering (DAE):
Minimum 50% marks in DAE with specialization in Computer or relevant technology.
The qualification must be recognized by the Inter Board Committee of Chairmen (IBCC).

2. Intermediate (HSSC):
Minimum 50% marks in HSSC (Pre-Engineering or equivalent) with

Mathematics, certified by IBCC.
OR minimum 50% marks in HSSC (Pre-Medical), certified by IBCC.
Note (Deficiency for Pre-Medical Students):

Students admitted with a pre-medical background must complete 6 credit hours of deficiency courses in Mathematics during the first two semesters.

Semester I

Course Code	Course Title	Cr Hrs
SEH-111	Islamic Studies / Ethics	2+0
SEH-112	Functional English	2+0
SEN-113	Math Elective-1	2+0
SEN-114	Applied Physics	2+3
SEC-115	Information Technology Skills	1+6
SEC-116	Computer Programming	1+6
	Total | 15	

Semester II

Course Code	Course Title	Cr Hrs
SEH-121	Pakistan Studies	2+0
SEN-122	Probability and Statistics	3+0
SEN-123	Discrete Structures	2+0
SEF-124	Software Configuration Management	1+3
SEF-125	Object Oriented Programming	1+6
SEF-126	Software Development Life Cycle	3+0
	Total | 15	

Semester III

Course Code	Course Title	Cr Hrs
SEH-211	Professional Practices	3+0
SEI-212	IDE-I	3+0
SEF-213	Data Structures and Algorithms	2+3
SEF-214	Software Requirements and Design	2+3
SEH-215	Communication Skills	2+0
SEF-216	Database Systems	2+3
	Total | 18	

Semester IV

Course Code	Course Title	Cr Hrs
SEB-221	Breadth Elective-1	2+3
SEI-222	IDE-II	3+0
SEB-223	Web Development Technologies	1+6
SEB-224	Software Operations and Maintenance	2+3
SEF-225	Software Testing Technologies	1+3
SED-226	Operating Systems	2+3
	Total | 18	

Semester V

Course Code	Course Title	Cr Hrs
SEH-311	Technical Writing	2+0
SEB-312	Breadth Elective-II	2+3
SEE-313	IDTE-I	1+3
SEB-314	Software Project Management	1+3
SEB-315	Information Security	2+0
SED-316	Computer Networking Technologies	2+3
SEP-317	Project - I	0+9
	Total | 18	

Semester VI

Course Code	Course Title	Cr Hrs
SEI-321	Technopreneurship	3+0
SED-322	Depth Elective-I	2+3
SED-323	Depth Elective-II	2+3
SED-324	Depth Elective-III	2+3
SEE-325	IDTE-II	1+3
SEP-326	Project-II	0+9
	Total | 18	

Semester VII

Course Code	Course Title	Cr Hrs
SET-411	Depth Elective-IV	2+3
SET-412	Depth Elective-V	2+3
SET-413	Depth Elective-VI	2+3
SET-414	Depth Elective-VII	2+3
SET-415	Depth Elective-VIII	3+3
	Total | 18	

Semester VIII

Course Code	Course Title	Cr Hrs
SET-421	Supervised Industrial Training-II	0+40
	Total | 40	

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GRADUATE
PROGRAMS

MS English (Linguistics)

Abasyn University Islamabad Campus has launched MS English (Linguistics), an HEC approved programme, from Spring 2023 to open new door of opportunities for the undergraduates in English. The major goals of this program are to equip the graduates with tools required for analyzing interpreting and understanding languages. The programme apart from providing a broad base in the field of English (Linguistics), that is, to familiarize with the theoretical frameworks developed in various subfields of Linguistics also aims to arm the graduates with research skills which would allow them to undertake research in different aspects of language. The research skills thus inculcated will strengthen the research culture in the country as well as research-informed decision making. The program covers all the major aspects of Linguistics including syntax, phonology, morphological, pragmatics and semantics etc. The programme is structured with a view to opening career prospects for the graduates in diverse fields.

Summary of the program

Total number of credit hours 30 (By research: 24 + 6 Cr. Hrs)
(By course work: 30 Cr. Hrs)

Duration:

Minimum 1.5 years to 4 years

Semester duration:

16-18 weeks

Maximum Course load per semester:

6- 12 credit hours

Degree Requirement CGPA: 2.5

Assessment: The thesis will externally and internally be evaluated.

Semester Plan

Semester I

Code	Course	CrHrs
ENG701	Research Methods in Linguistics	3+0
ENG7XX	Elective-I	3+0
ENG7XX	Elective-II	3+0
ENG7XX	Elective-III	3+0
	Total	**12**

Semester II

Code	Course	CrHrs
ENG702	Linguistics Theories	3+0
ENG7XX	Elective-IV	3+0
ENG7XX	Elective-V	3+0
ENG7XX	Elective-VI	3+0
	Total	**12**

Semester III & IV

Code	Course	CrHrs
ENG799	Thesis*	06
	Total	**06**

*Students taking course work option will take 6 credit hour courses in lieu of Thesis from the elective courses given below.

List of Elective Courses

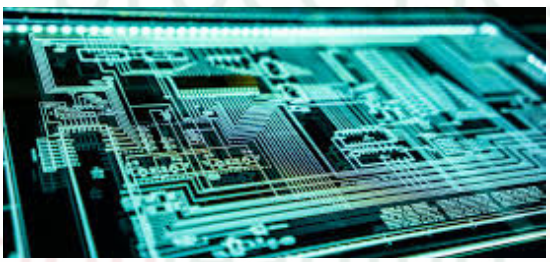
Code	Course	CrHrs
ENG710	Anthropological Linguistics	3+0
ENG711	Bilingualism	3+0
ENG712	Feminist Linguistic Theories: Methodology and Practice	3+0
ENG713	Emerging Trends in Sociolinguistics	3+0
ENG714	English for Specific Purposes (ESP)	3+0
ENG715	Language and Media	3+0
ENG716	Descriptive Linguistics	3+0
ENG717	Morphological Theories	3+0
ENG718	Phonetics and Phonology	3+0
ENG720	Pragmatics	3+0
ENG721	Second Language Acquisition	3+0
ENG719	Semantics	3+0
ENG722	Psycholinguistics	3+0
ENG723	Advanced Syntax	3+0
ENG724	Testing and Evaluation	3+0
ENG725	Translation Studies	3+0
ENG726	World Englishes	3+0
ENG731	Human Language and Digital Technology	3+0
ENG732	Approaches to Discourse Analysis	3+0
ENG733	Perspectives in Corpus Linguistics	3+0
ENG727	Applied Grammar & Syntax	3+0
ENG728	Discourse Studies	3+0
ENG734	Language, Power and Identity	3+0
ENG741	Latest Trends in Linguistics	3+0
ENG742	Narratology	3+0
ENG743	Psycho-Neurolinguistics	3+0
ENG744	Advanced Stylistics	3+0
ENG735	Systematic Functional Linguistics	3+0
ENG736	Critical Discourse Analysis	3+0
ENG737	Genre Analysis	3+0
ENG738	Issues in Syntax	3+0
ENG739	Applied Linguistics	3+0
ENG747	Multilingualism	3+0
ENG742	Cross-cultural communication	3+0
ENG743	Theoretical Phonology	3+0
ENG744	Language Program Management	3+0
ENG745	Theoretical Foundations of Morphology	3+0
ENG746	Cognitive Linguistics	3+0
ENG748	Advanced Phonetics	3+0
ENG799	Thesis	06

MS Computer Sciences (MSCS)

MS in Computer Science, offered by the department of the computing, is an advanced degree program in the area of computer sciences. The program is aimed at preparing students for advanced and research oriented jobs in the area. Most of the courses in this program are designed in such a way that students are required to exhibit high level skills in research activities. Apart from core courses, students are also required to take courses from one of the specialization areas of their own choice to fulfill the requirements of MS degree.

Area of Specialization

- Computer Networking
- Databases and Web Technologies
- Software Engineering
- Mobile Computing
- Artificial Intelligence and Image Processing



Core Courses

Code	Course	CrHrs	Remarks
CS602	Advance Theory of Computations	3+0	Any four (4) courses
CS603	Advanced Computer Architecture	3+0	
CS605	Advanced Operating Systems	3+0	
CS614	Theory of Programming Languages	3+0	
CS617	Advance Design & Analysis of Algorithms	3+0	
CS601	Research Methodology Total 18	3+0	Compulsory for thesis students

Semester Plan

Semester I

Code	Course	CrHrs
CS6xx	Core Course-I	3
CS6xx	Core Course-II Total 6	3

Semester II

Code	Course	CrHrs
CS6xx	Core Course-III	3
CS6xx	Core Course-IV	3
CS6xx	Elective-I Total 9	3

Semester III

Code	Course	CrHrs
CS6xx	Elective-II	3
CS6xx	Elective-III	3
CS698	Thesis-I Total 9	3

Semester IV

Code	Course	CrHrs
CS5xx	Elective-III	3
CS699	Thesis-II Total 6	3

Elective Courses

Code	Course	CrHrs
CS628	Advanced Programming	3
CS629	Mathematical Methods in Computing	3
CS633	Advanced Computer Networks	3
CS634	Application Development for Mobile Devices	3
CS635	Advanced Web Technologies	3
CS639	Cloud Computing	3
CS640	Advance Computational Techniques	3
CS641	Information Theory	3
CS642	Fuzzy Logic	3
CS643	Genetic Algorithms	3
CS644	Advanced Digital Signal Processing	3
CS712	Advance Network Security	3
CS706	Advanced Artificial Neural Networks	3
CS713	Advance Digital Image Processing	3
CS714	Pattern Recognition & Computer Vision	3
CS715	Advance Bio Medical Signal Processing	3
SE612	Object-Oriented Software Engineering	3
SE620	Software Project Management	3
SE622	Software Quality Engineering	3
SE623	Software cost & Estimation	3
SE625	Software Risk Management	3
SE626	Software Design Patterns	3
SE627	Software Measurement and Metrics	3
SE630	Personal Software Process	3
SE633	Agile Software Development	3
SE636	Machine Learning Applications in Software Engineering	3
SE701	Formal Methods in Software Engineering	3

**This list of electives is not exhaustive. The list of elective courses may be revised as per requirement*

MS Data Science (MSDS)

The MS (DS) program has been designed to give students the option to be part of a data science endeavor that begins with the identification of business processes, determination of data provenance and data ownership, understanding the ecosystem of the business decisions, skill sets and tools that shape the data, making data amenable to analytics, identifying sub-problems, recognizing the technology matrix required for problem resolution, creating incrementally-complex data- driven models and then maintaining them to ultimately leverage them for business growth.

Core Courses

Code	Course	CrHrs
DS602	Statistical and Mathematical Methods for Data Science	3+0
DS603	Tools and Techniques in Data Science	2+1
DS604	Machine Learning	3+0

DS601 Research Methodology is a compulsory course for thesis students

Specialization core courses

Code	Course	CrHrs
DS605	Big Data Analytics	3+0
DS606	Deep Learning	3+0
DS607	Natural Language Processing	3+0
DS608	Distributed Data Processing	3+0

Semester Plan

Semester I

Code	Course	CrHrs
DS603	Tools and Techniques for Data Science	3
DS602	Statistical and Mathematical Methods for Data Analysis	3
CS6xx	Elective-I	3

Semester II

Code	Course	CrHrs
DS604	Machine Learning	3
CS60x	Specialization-Elective-I	3
CS60x	Specialization Elective-II	3

Semester III

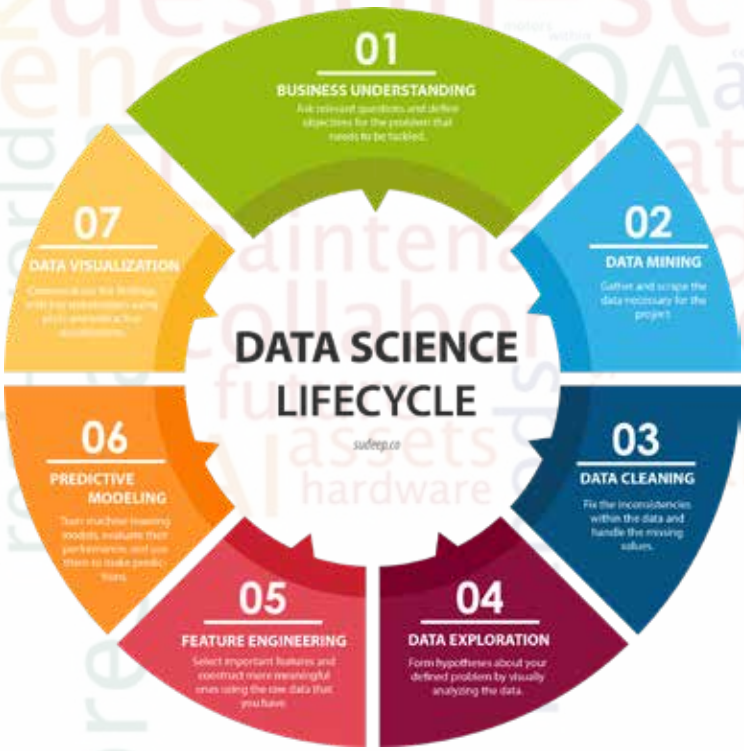
Code	Course	CrHrs
CS6xx	Elective-II	3
DS689	Thesis-I	3

Semester IV

Code	Course	CrHrs
CS5xx	Elective-III	3
DS699	Thesis-II	3

Elective Courses

Code	Course	CrHrs
DS620	Algorithmic Trading	3
DS621	Advanced Computer Vision	3
DS622	Bayesian Data Analysis	3
DS624	Bioinformatics	3
DS630	Distributed Data Processing and Machine Learning	3
DS631	High performance computing	3
DS633	Inference & Representation	3
DS635	Optimization Methods for Data Science and Machine Learning	3
DS636	Probabilistic Graphical Models	3
DS637	Scientific Computing in Finance	3
DS638	Social Network Analysis	3
DS701	Deep Reinforcement Learning	3
DS702	Time series Analysis and Prediction	3
DS703	Computational Genomics	3



MS Electrical Engineering (MSEE)

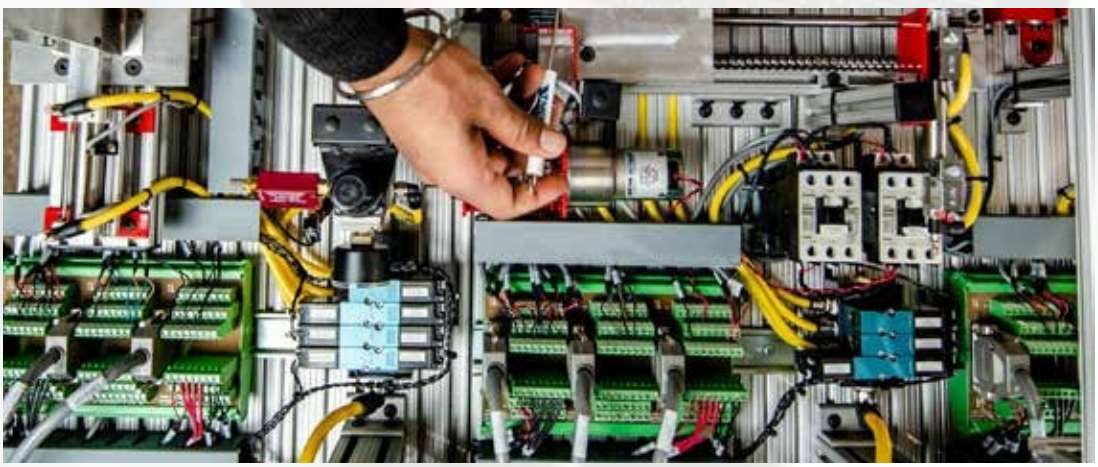
MS Electical Engineering is offered by th department of Electical Engineering. Major outcomes of the program are:

- Ability to investigate technology and tools
- Ability to design and propose new methods
- Ability to design solution to problem faced by computing and engineering industries.
- Ability to work independently
- Ability to produce impact factor research

Program Structure

MSEE curriculum is also divided into core and electives courses. A 6 CrHr thesis is compulsory part of the MSEE curriculum. All students aret required to complete thesis on individual basis. The course work of the MSEE program consists of 9 CrHr core and 15 CrHr elective and specializations courses.

	CrHrs	Description
Category Core Courses	12	Core courses are compulsory. A list of core courses is designed based on latest trend in Electrical Engineering as per the HEC criteria which will be offered to students in the initial three semesters.
Specialization/Elective/Cross Courses	12	A number of specialization areas have been identified. Relevant courses for each specialization area are listed. Student will be required to complete four courses from the chosen area and one from the cross domain.
Thesis	6	Intensive research to be conducted in this course. The University encourages Master students to publish their research work at national and international forums.
Total	**30**	



Core Courses

Code	Course	CrHrs
EE605	Advanced Engineering Mathematics	3
EE607	Research Methodology	3
EE601	Stochastic Processes	3
EE602	Advanced Digital Signal Processing	3

Semester Plan

Semester I

Code	Course	CrHrs
EExxx	Core Course-I	3+0
EExxx	Core Course-II	3+0
EExxx	Elective-I	3+0

Semester II

Code	Course	CrHrs
EExxx	Core Course-III	3+0
EExxx	Core Course-IV	3+0
EExxx	Elective-II	3+0

Semester III

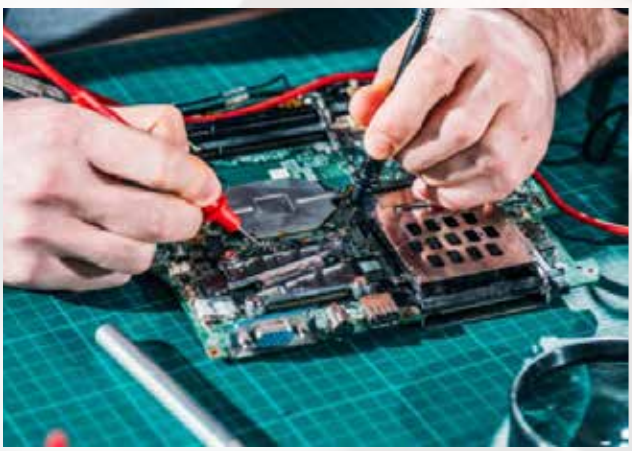
Code	Course	CrHrs
EExxx	Elective-III	3+0
EExxx	Elective-IV	3+0
EE698	Thesis-I	3+0

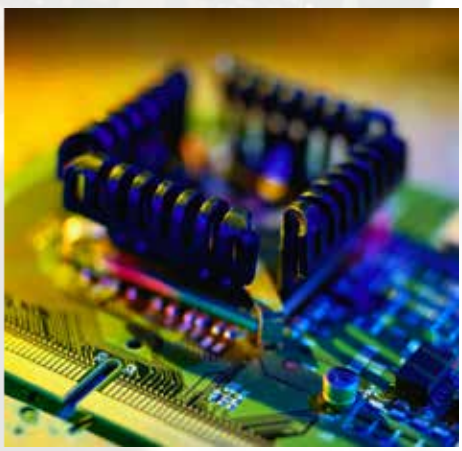
Semester IV

Code	Course	CrHrs
EE699	Thesis-II	3+0

Elective Courses

Code	Course	CrHrs
EE610	Information Coding & Theory	3
EE726	Advanced Artificial Neural Networks	3
EE614	Advance Design & Analysis of Algorithm	3
EE617	Advanced Microwave Engineering	3
EE618	Advanced Digital Image Processing	3
EE619	Antenna Theory and Design	3
EE657	Advanced Computer Architecture	3
EE658	Cryptography	3
EE646	Advance Network Security	3
EE648	Pattern Recognition & Computer Vision	3
EE651	Advanced Control Systems	3
EE652	Multivariable Feedback Control	3
EE653	Stochasitic Control Systems	3
EE654	Adaptive Control Systems	3
EE661	Advanced FPGA Based Design	3
EE664	Digital IC Design	3
EE665	Integrated Circuit Analysis and Design	3
EE671	Advanced Power System Control	3
EE675	Advanced Power Generation and Utilization	3
EE676	Power Transmission and Distribution	3
EE677	Renewable Energy Technologies and Systems	3
EE707	Advanced Electrical Power Systems	3





MS Civil Engineering (MSCE)

In order to satisfy the increasing demand for relevant advanced technological education, the Civil Engineering department at Abasyn University Islamabad is offering MS degree in Civil Engineering in different specialized fields of Civil Engineering. The courses aims to contain a balance of analytical and professional aspects and are designed to suit the needs of fresh graduates and those with professional experience. The tremendous potential for the development of Highways, Buildings and solution of Environmental problems requires the services of engineers trained to plan, design, construct, operate and maintain engineering works for the control and utilization of resources while ensuring sustainability. Most of the postgraduate students belong to the construction industry and act as a bridge for university-industry linkage that makes research in the department to be practical and useful for the country. The program allows the engineers to further enhance their engineering education through latest research. The program offers a setting in which students will get both technical success and personal advancement. The successful candidate may serve academia, industry or research etc.

Eligibility Criteria

Entry requirements for MS (Civil Engineering) at the University are:

- B.Sc./BS/BE in Civil Engineering or equivalent.
- Minimum 50% marks or 2.00 CGPA on the scale of 4.00 in qualifying degree
- GAT-General conducted by NTS (National testing Service) or University Entry Test, with minimum 50% of cumulative score.
- Foreign students will have to produce equivalence certificate at the time of admission from the Higher Education Commission, Islamabad.
- The applications of the applicants with the Bachelor's degree other than Civil Engineering will be reviewed by Civil Engineering Graduate Committee. The committee will decide eligibility and number of deficiency undergraduate courses. The students will be required to attend a so called "zero semester" to compensate the deficiencies. The obtained Credit Hours (Cr. Hrs.) in zero semester will neither be considered in MS degree nor will be claimable for any other purpose or certificate etc.
- The applications of the applicants with the Bachelor's degree other than Civil Engineering will be reviewed by Civil Engineering Graduate Committee. The committee will decide eligibility and number of deficiency undergraduate courses. The students will be required to attend a so called "zero semester" to compensate the deficiencies. The obtained Credit Hours (Cr. Hrs.) in zero semester will neither be considered in MS degree nor will be claimable for any other purpose or certificate etc.
- Foreign students will have to produce equivalence certificate at the time of

admission from the Higher Education Commission, Islamabad.

Degree Requirements

There are two choices available to complete MS degree:

Choice # 1: Thesis

- 24 Credit Hours course work (8 courses of 3 Cr. Hrs. each, which include 4 compulsory and 4 elective courses)
- 06 Credit Hours Thesis
- Total 30 Credits

Choice # 2: Non-Thesis

- 30 Credit Hours course work (10 courses of 3 Cr. Hrs. each, which include 4 compulsory and 6 elective courses)

Semester Plan

The MS Civil Engineering Program comprises of 2 years with 4 regular semesters. Like other master programs, MSCE curriculum is also divided into various categories, such as core, electives/specialization courses and thesis. The course work of the MSCE program consists of twelve Credit Hours core courses and twelve Credit Hour elective specializations courses. Six Credit Hour thesis is compulsory part of the MSCE curriculum under Choice # 1, however, in special cases a student can take two courses equivalent to 6 Cr Hr in lieu of thesis after the approval of relevant bodies. Maximum of 3 courses per semester are allowed. All students will be required to complete thesis on the individual basis. The maximum duration to complete the degree is 4 years from the date of admission

Semester Plan

Semester I

Code	Course	CrHrs
CE XXX	Core Course-1	3
CE XXX	Core Course-2	3
CE XXX	Elective Course-I	3
	Total	9

Semester II

Code	Course	CrHrs
CE XXX	Core Course-3	3
CE XXX	Elective Course-II	3
CE XXX	Elective Course-III	3
	Total	9

Semester III

Code	Course	CrHrs
CE XXX	Core Course-4	3
CE/CET XXX	Thesis / Elective course-IV	3
	Total	6

Semester IV

Code	Course	CrHrs
CE/CET XXX	Elective Course-V	3
CE/CET XXX	Thesis / Elective course-VI	3
	Total	6

Core Courses for MSCE

Core courses are compulsory requirements which must be completed by each student. Students are required to take four courses as mentioned below list.

Code	Course	CrHrs
CE 601	Pavement Structures, Materials and Design	3
CE 703	Advanced Geotechnical Engineering	3
CE 622	Advanced Concrete Technology	3
CE 628	Advanced Mechanics of Materials	3

List of Specialization and Electives for MSCE

In order to cover the deficiency of students, various important courses are designed and placed under the general elective area. The director post graduate studies at the time of the admission will assess the deficiency of each student and suggest one course from the below list. Various courses from mixed specializations of Structural Engineering and Transportation Engineering are offered in the MSCE in Civil Engineering program to provide a vast choice to the students. However, the Department will decide specialization for students in case the number of students opt for any specialization area is less than ten. Students will be required to complete four courses from the courses tabulated below.

Code	Course	CrHrs
CE 601	Pavement Structures materials and Design	3
CE 602	Pavement evaluation based on NDT	3
CE 603	Pavement Construction and Maintenance	3
CE 604	Traffic Management Techniques	3
CE 605	Highway planning and Design	3
CE 606	Intelligent Transport Systems	3

CE 607	Traffic Safety	3
CE 608	Railway Engineering	3
CE 609	Airport Planning and Engineering	3
CE 610	Highway Geometric Design	3
CE 621	Advanced Concrete Design	3
CE 622	Advanced Concrete Technology	3
CE 623	Matrix Structural Analysis	3
CE 624	Behavior of Concrete Structures	3
CE 625	Advanced Steel Structures	3
CE 626	Prestressed Concrete Structures	3
CE 627	Finite Elements Methods	3
CE 628	Advanced Mechanics of Materials	3
CE 629	Introduction to Bridge Engineering	3
CE 630	Structural Dynamics	3
CE 631	Earthquake Resistant Design	3
CE 701	Research methodology	3
CE 702	Probability and Statistics	3
CE 703	Advanced Geotechnical Engineering	3
CE 704	Advanced Soil Mechanics	3
CE 705	Soil Dynamics	3
CE 706	Advanced Foundation Engineering	3
CE 707	Rock Mechanics and Tunneling Engineering	3
CE 708	Ground Stabilization	3
CE 709	Geo Environmental Engineering	3
CE 710	Hydraulic Structures	3
CE 711	Civil Engineering Materials and Composites	3
CE 712	Computer Aided design construction and management	3
CE 713	Infrastructure Conditions assessment	3
CE 714	Environmental Impact assessment	3
CE 715	Project planning and estimating	3
CE 716	Transportation Planning and Modelling	3
CE 717	Geographical Information system	3
CE 690	Special Topics	3

MS Project Management (MSPM)

MS in Project Management (MSPM) is becoming a paramount academic qualification for project managers, technical entrepreneurs, and software developers working at various levels and different professions.

Project Management enables managers to conceive, initiate, plan, execute, control and evaluate effective projects by utilizing the theoretical and practical set of skill upon which this program is focused intensively.

The degree program is purposefully designed to benefit through following curriculums adapted from PMBOK (Project Management Body of Knowledge) and beyond. Managers, GMs, Technocrats, Manufacturers, Consultants, Entrepreneurs, Engineers, Technological Experts, Scientists, and Technical Managers would find this lucrative opportunity to enhance their project management skill set.

The curriculum of MSPM is developed in such a way to equip project managers witha diversified skill set so they can comprehend a holistic design of organizational operations and their relationship to project management. Areas in strategic management, financial, marketing, and technology entrepreneurship are included in this program to expand the knowledge and value base of professionals.

Program Structure

Total number of Credit Hours categorical distribution:

Category	CrHr	Remarks
Core Courses	9	Core courses compulsory. A list of five core courses is provided as per the HEC criteria.
Elective Courses	15	A number of common elective courses are identified which are useful for engineering management discipline. Students are required to take minimum three courses from this category.
Thesis	06	Intensive research to be conducted the under supervision of a faculty member.
Total	30	

Area of Specialization

- Industrial Project Management
- Engineering Project Management
- Software Project Management

Core Courses

Code	Course	CrHr
MS501	Advanced Research Methods and Professional Ethics	3+0
PM548	Management Science for Technical Managers	
PM625	Advanced Operations Management	3+0
PM622	Advance Project Management	3+0

Semester Plan

Semester I

Code	Course	CrHrs
PM548	Management Science for Technical Managers	3+0
PM625	Advanced Operations Management	3+0
PM622	Advance Project Management	3+0

Semester II

Code	Course	CrHrs
MS501	Advanced Research Methods and Professional Ethics	3+0
PM6xx	Elective-I	3+0
PM6xx	Elective-II	3+0

Semester III

Code	Course	CrHrs
PM6xx	Elective-III	3+0
PM6xxz	Elective-IV	3+0
TH601	Thesis-I	3+0

Semester IV

Code	Course	CrHrs
TH602	Thesis-II	3+0

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Master of Science in Management Science (MSMGT)

MS in Management Sciences program aims at developing a student's intellectual ability in terms of understanding the theoretical and philosophical underpinnings of modern business. The students are encouraged to explore the deepest, broadest questions of life: why we exist, how society should organize itself, how institutions should relate to society, and the purpose of human endeavor, to name just a few. The program is essentially research oriented and focuses on academic research having practical applications in real life. The program is suitable both for those who want to pursue academic career and for those who want to pursue professional career.

Learning Outcomes
The students will be able to:
·Understand the theoretical underpinnings of the modern business activity.

Conduct research independently
·think more broadly and more deeply about the beliefs and values at the root of business activities.

·Appreciate and critically evaluate different schools of thought.
· Contribute towards the development of new ideas, theories and business models.

Semester I

Course Code	Course Title	Cr Hrs
MS – 611	Advanced Research Method	3
MS – 612	Innovation & Entrepreneurship	3
MS – 613	Strategic Management	3
	Total | 9	

Semester II

Course Code	Course Title	Cr Hrs
MS – 621	International Business & Trade	3
MS – 622	Applied Statistics in Management	3
MS – 623	Elective I	3
	Total | 9	

Semester III

Course Code	Course Title	Cr Hrs
MS – 631	Corporate Social Responsibility	3
MS – 632	Elective II	3
—	Proposal Writing	--
	Total | 6	

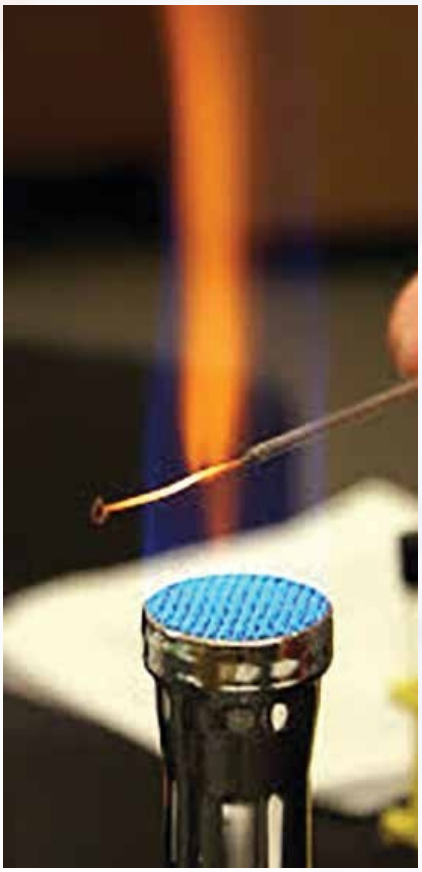
Semester IV

Course Code	Course Title	Cr Hrs
MS – 700	Thesis	6
	Total | 6	

List of Electives

Course Code	Course Title	Cr Hrs
MS410	Advanced Quality Control Techniques	3
MS411	Innovation & Entrepreneurship	3
MS413	Supply Chain Management	3
MS415	Intellectual Capital Management	3
MS416	Comparative Management	3
MS417	Global Corporate Strategy	3
MS517	Entrepreneurial Finance	3
MS518	Investment & Portfolio Management	3
MS519	Organizational Behavior Analysis	3
MS520	Leadership & Motivation Techniques	3
MS521	Organizational Learning & Knowledge Management	3
MS522	Change Management	3

M.Phil Microbiology



M.Phil. in Microbiology, offered by the Department of Life Sciences, is one of fastest growing post-graduate program at the campus. The faculty members are highly-qualified and are actively involved in teaching and research. The department has collaborative links with national research laboratories and institutes. The department has access to the modern laboratories and tools of microbiology, molecular biology, cell culture etc.

Candidates opting for M.Phil. degree program are encouraged to build upon the body of knowledge already acquired in their graduate studies by indulging in original research work and thesis. The degree program fulfills all the curriculum requirements for M.Phil. degree program as recommended by Higher Education Commission, consisting of core and elective courses. The students are required to complete 24 credit hours of courses and complete a research thesis of 6 credit hours.

Semester Plan

Semester I

Code	Course	CrHrs
MB701	Proteomics and Genomics	3
MB702	Instrumentation and analytical techniques	3
MB7xx	Elective-I	3
MB7xx	Elective-II	3

Semester II

Code	Course	CrHrs
MB742	Research Methodology	3
MB7xx	Supporting Elective	3
MB7xx	Elective-III Elective-IV	3
MB7xx		3

Semester III & IV

Code	Course	CrHrs
MB790	Thesis	6

List of Core Courses (Compulsory CourseS)

Code	Course	CrHrs
MB701	Proteomics and Genomics	3
MB702	Instrumentation and analytical techniques	3
MB742	Research Methodology	3

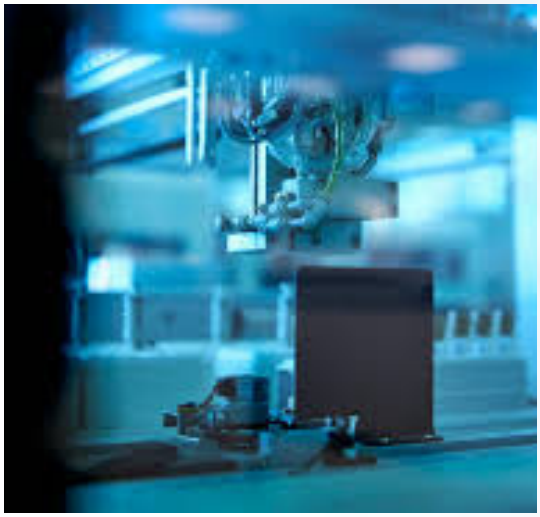
List of Supporting Elective (One course should be selected)

Code	Course	CrHrs
MB741	Biostatistics and Computer Application	3
MB743	Analytical Tools for Microbiology Applications	3

List of Elective Courses

Code	Course	CrHrs
MB 729	Foodborne Diseases	3
MB717	Gene Expression and Regulation	3
MB704	Epidemiology	3
MB717	Advanced Immunology	3
MB705	Molecular Virology	3

MS Biochemistry



MS in Biochemistry is an advanced degree program which aims to prepare students for research and strategic jobs in this field. Owing to the enormous advances made during recent decades, biochemistry has become the milestone of all biological sciences. MS Biochemistry has been designed to meet the needs of well-trained manpower to serve the sectors of health, agriculture, industry and education in the country. The program (MS in Biochemistry) has a minimum of two-year duration (4 Semesters) and includes both course work (24 credit hours) and a research Thesis (6 credit hours). Highly qualified faculty members are actively engaged in research in multiple disciplines like Cancer cell Biology, Molecular Immunology, Animal and Plant cell culture, Drug designing, Genetic engineering, and Molecular Genetics.

Semester Plan

Semester I

C. Code	Course Title	CrHrs
BC611	Advances in Biochemistry	3+0
BCXXX	Elective – I	3+0
BCXXX	Elective – II	3+0
BCXXX	Elective-III	3+0
	Total	12

Semester II

C. Code	Course Title	CrHrs
BC621	Advances in Molecular Biology	3+0
BCXXX	Elective – IV	3+0
BCXXX	Elective – V	3+0
BCXXX	Supporting Elective	3+0
	Total	12

Semester III & IV

C. Code	Course Title	CrHrs
BCXXX	Thesis/Dissertation	0+6
	Total	06

Core Courses (compulsory course)

C. Code	Course Title	CrHrs
BC611	Advances in Biochemistry	3+0
BC621	Advances in Molecular Biology	3+0

Supporting Elective (one course will be studies from this list):

C. Code	Course Title	CrHrs
BC622	Biostatistics and Computer Applications	3+0
BC601	Research Methodology	3+0

Elective Courses

C. Code	Course Title	CrHrs
BCXXX	Advances in Molecular genetics Advances in	3(3-0)
BCXXX	Endocrinology Advances in Biotechnology	3(3-0
BCXXX	Advanced Biostatistics Advanced Bioinformatics	3(3-0)
BCXXX	Recent Trends in Immunology Advanced	3(3-0)
BCXXX	Fermentation Biotechnology Community	3(3-0)
BCXXX	Nutrition Protein Structure, Function and	3(3-0)
BCXXX	Engineering Enzymes - Mechanism & Kinetics	3(3-0)
BCXXX	Advances in Cell Biology DNA Techniques and	3(3-0)
BCXXX	Clinical Applications Good Laboratory Practices	3(3-0)
BCXXX	and Quality Control	3(3-0)
BCXXX	Signal Transduction	3(3-0)
BCXXX	Biochemistry of Metabolic	3(3-0)
BCXXX	Biochemistry of Disorders	3(3-0)
BCXXX	Natural Products Recombinant	3(3-0)
BCXXX	DNA	3(3-0)
BCXXX	Technology Research	3(3-0)
BCXXX	Methodology	3(3-0)
BCXXX	Advanced Biochemical	3(3-0)
BCXXX	Techniques	3(3-0)
BCXXX	Genomics, Proteomics and Metabolomics	3(3-0)
BCXXX	Gene Expression and Regulation	3(3-0)
BCXXX	Food Biochemistry	3(3-0)
BCXXX	Renewable bioenergy Resources	3(3-0)
BCXXX	Molecular Mechanism of Diseases	3(3-0)
BCXXX	Molecular Evolution	3(3-0)
BCXXX	Seminar	3(3-0)
BCXXX	Special Problem/ Specific assignment	3(3-0)
BCXXX	Drug Designing and Metabolism	3(3-0)
BCXXX	Forensic Serology and DNA Analysis	3(3-0)
BCXXX	Application of Nanomaterials in Biosciences	3(3-0)
BCXXX	Stem Cell and Therapeutics	3(3-0)
BCXXX	Neuroscience	3(3-0)
BCXXX	Structural Bioinformatics	3(3-0)
BCXXX	Plant Genomics	3(3-0)
BCXXX	Biochemistry of Drugs and their Resistance	3(3-0)

ABASYN UNIVERSITY
Passion to Design Futures

CAMPUS calling

Admission Procedure

Abasyn University offers admission on open merit basis. There is no quota system followed at the University. The eligibility mentioned below must be fulfilled by the candidate at the time of submitting application. All candidates for undergraduate programs who are eligible for admission will be required to appear in the entry test arranged by the University

Admissions to various programs are announced through national news papers and social media well before the date of the entry test. All applications for admission are accepted on prescribed forms with attested photocopies of all the previously obtained Degrees/Certificates/ DMCs, and any other document mentioned in the application form attached to the Prospectus. Admission is based upon careful review of all credentials presented by the applicant. These applications will be considered without regard to race, gender, age, religion, marital status, physical disabilities, and national origin. All required admission documents should be submitted to the Office of Admissions. The University reserves the right to change its admissions policy without prior notice.

Eligibility

Eligibility and Selection Criteria (BECE/BEEE) A candidate must have one of the following qualifications to be eligible for the admission in the BECE program. • at least 60% marks in FSc. (Pre-Engineering)
• at least 60% marks in DAE (Civil)
• Any other equivalent qualification.

The Selection criteria for the intake is rigorously adhered to ensure quality, equality, and equal opportunity for students from all race, background and orientations. Selection of candidate for the admission is based on the following criteria:

Matric:	10%
Intermediate/DAE:	50%
Entry test, NTS or any other: aptitude test	40%

Eligibility and Selection Criteria (PHARMACY/DPT)

A candidate must have 60% or above marks in Intermediate (Pre-medical) or equivalent or a

higher examination of a Pakistani university with Biological Sciences to apply for admission to the Pharm-D.

Selection of candidate for the admission is based on the following criteria:

Matric:	10%
Intermediate or equivalent:	50%
Entry test, NTS or any other: aptitude test	40%

Eligibility and Selection Criteria

(all other disciplines)

To be admitted to the BS Programs, applicants shall fulfill the following requirement:

1. Minimum 45% marks in HSSC (or equivalent) examination. Applicants with a qualification other than HSSC will need to furnish an equivalence certificate from Inter-Board Chairman Committee, Islamabad.

Selection of candidate for the admission is based on the following criteria:

Matric:	10%
Intermediate or equivalent:	50%
Entry test, NTS or any other aptitude test:	40%

Eligibility and Selection Criteria

(B.Sc Civil Engineering Technology)

A candidate must have one of the following qualifications to be eligible for the admission in the B.Sc Civil Engineering Technology program.

- at least 50% marks in FSc. (Pre-Engineering)
- at least 50% marks in DAE (Civil)
- Any other equivalent qualification.

Eligibility and Selection Criteria

(B.Sc Electrical Engineering Technology)

A candidate must have one of the following qualifications to be eligible for the admission in the B.Sc Electrical Engineering Technology program program.

- at least 50% marks in FSc. (Pre-Engineering)
- at least 50% marks in DAE (Electrical)
- Any other equivalent qualification.

For the MS/MPhil Programs

a. The candidate should have passed 4 year Bachelor's* degree from any recognized university with certain required courses according to the chosen discipline of study. (for example for admission to MS in Electrical Engineering - a 4 year BSc Electrical Engineering).

b. The candidates are required to provide NTS General TEST result with a minimum cumulative score of 50 percent, within the first two semesters after inrollment The admission office provides guidance how to take NTS examination.

For Standing Admissions (Transfer Students)

All potential students applying for transfer of credits must have been enrolled in an HEC recognized institution. Furthermore, they are required to fulfill and complete all admissions requirements for their respective programs. The following criteria will be used to assess the Academic eligibility of transfer students:

a. Duly completed Transfer of Credit form.

b. Mark sheets/transcripts of current and previous academic work

c. Course outlines for all courses that a student wants to be transferred to the university.

d. No objection certificate from the previous institution of enrollment.

e. All potential candidates are required to take the Admission examination, unless they are transferring from another campus of Abasyn University.

f. According to the university policy students must complete at least half of the program to get a degree.

g. No credit hour of a course will be transferred if the grade is less than C for undergraduate/ Master of 16 year and B for Master/Mphil programs.

Application

The fee for the application packet can be paid in cash if collected in person. If requested by post the fee should be sent in the form of a bank draft or pay order in the name of Abasyn University. Application can be downloaded from official Website of Abasyn University (www.abasynisb.edu.pk). Application can be filled and submitted online as well. However students are required to bring their required documents on the day of test/interview. Application must be submitted before the deadline fixed by the University.

Required Documents with application

The following documents are required to be submitted along with the Admission Application Form:

- Completed Admission application form.
- Mark sheets of all previously completed academic work.
- If a candidate has completed previous academic work from another education system, an Equivalence Certificate from the Inter Board Committee of Chairmen (IBCC) is required within two months of the admission offer.
- 4 Passport size photographs.
- Copy of Computerized National Identity Card / Form B.

Admission Test

Abasyn University arranges its own entry test to make sure that the quality of intake is the best. The admissions test covers the following areas:

English

1.

2. Mathematics

3. Logic and Analytical

Abasyn University provides students with all the necessary examination stationary, thus students don't need to bring anything along with them.

Fee Structure and Financial Support

The University is well aware of the economic conditions of the country. Therefore, the University has exceptionally subsidized tuitions fee of all of the academic programs. The fee structure is vary from the program to program. The fee is charged on Credit hour basis during each semester. Candidates are requested to obtain information about the tuition of fee of each program from the admission or finance offices.

In addition to tuition fee students are also required to pay the following fee:

- Admission fee
- Security fee (Refundable)
- Registration Fee
- Degree fee once at the time of completion and award of degree

The university reserves the right to change the fee structure without prior notice to students. Tuition fee is increased by 3%-7% each year. Tuition Fees at Abasyn University are quite affordable as compared to others. Details can be obtained from Admission Office or visit our website www.abasynisb.edu.pk.

◀ Orientation Session

▶ EE Farewell party
Batch Fall 14

Academic Policies and Rules

Academic Integrity

Abasyn University expects integrity from every student and staff in all academic work. AU does not support plagiarism in any form. AU main principle regarding the academic integrity is that student's submitted work must be of his or her own creation. Conduct prohibited by the code consists of all forms of academic dishonesty, including: cheating, fabrication, facilitating academic dishonesty, and plagiarism which is defined in the code of conduct, modifying any academic work for the purpose of obtaining additional credit after such work has been submitted to the supervising faculty member. Failure to observe rules of academic integrity established by a faculty member for a particular course and attempting to commit any act prohibited by the code will result in severe action against the student which includes an automatic 'Fail' grade for the course and/or expulsion from the university.

Plagiarism

Abasyn University strongly discourages and condemns any form of plagiarism. Students caught cheating on any examination by using "notes" whether those notes were relevant to the test or not, or caught talking during examination, will receive an automatic 'Fail' grade for the course. Strong disciplinary action will be taken against the accused student, including expulsion from the university. Students caught applying "copy & paste" or copying other student's work on assignments will receive an automatic '0' marks for that assignment.

Academic System

The University follows semester system for all of its degree programs. Each academic year consists of two regular semesters, i.e., Fall and Spring semesters. However, an optional condensed Summer semester is also offered to enable students to cover up any deficiency occurred in the regular semesters.

Academic Duration for various degree programs

Most of the bachelor degree programs consist of four years. However, there are certain programs which are completed in two years such as Bachelor of Commerce (BCom), and associate degrees.

Students are expected to complete their education within a specified period of time for the degree they are enrolled for. For fulltime Bachelor students, the normal time needed to complete their degree program is four (4) years and the maximum time permitted is six (6) years. Master degree students are expected to complete their degree requirements within one and half (1.5) to three and half (3.5)years.

Credit Hour

Each class is defined by the number of credit hours. At Abasyn University, majority of classes are either 3 or 4 credit hours. One credit hour is equivalent to 15 contact hours. However, one credit hour lab is equivalent to 2 to 3 contact hours per week.

Academic Load

Academic load varies from program to program. Normally a student takes 15-18 Credit Hours course work in a semester at the four years degree program. As Abasyn University offers a variety of degree programs, therefore, the academic load varies from degree to degree. See details in student hand book.

Registration

All students of Abasyn University are required to register each semester according to schedule announced by the University authority. Registration is a useful process for both the students and academic Departments in order to plan students' studies for the whole semester. Student can register minimum possible load depending on his performance in the previous semester(s). The Department can also advise weak students to not register for full load but improve the academic standing to clear the academic probation (if any).

Withdrawal from University

A student who wishes to withdraw from the University must notify the Admissions Office and Head of Department in writing by completing the University Withdrawal form. The Admission Office after proper procedure will issue a letter to student for the closure of the admission in the University.

Freezing of Semester

A student may request freezing of his/ her admission for up to 2 semesters along with 'Semester freeze' charges of Rs. 5,000 per semester. The written approval of the Head of Department and the Registrar is required. A student cannot freeze more than two semester consecutively and a student cannot avail this facility for more than two time in the whole degree duration.

Grading System

Since AU offers a diverse degree program, therefore, grading scheme varies from discipline to discipline. Letter grades, standing, percentage and grade points are shown in the table below:

Letter Grade	Standing	Percentage	Grade Point
A	Outstanding	85-100	4.00
A-	Excellent	80-84	3.67
B+	Very Good	75-79	3.33
B	Good	70-74	3.00
B-	Above Average	65-69	2.67
C+	Average	61-64	2.33
C	Moderate	58-60	2.00
C-	Acceptable	55-57	1.67
D+	Pass	53-54	1.33
D	Pass	50-52	1.00
F	Fail	Below 50	0.00
I*	Incomplete		
W*	Withdraw		

* Are not included in the calculation of Grade Point Average (GPA).

Academic Probation

Students whose performance is unsatisfactory are kept on academic probation. The following rules of academic probation will be used:

a. If a student obtains a GPA less than 2.0 in a semester, the student will be placed on academic probation. Students in this status are urged to seek academic counseling through appointment with the Head of the Department or the Dean.

b. If a student who continues to get a GPA below 2.0 in the following semester will be placed on second academic probation. Student and his parent/ guardians will also be informed about the weak performance of the student..

c. A student who fails to raise his/her GPA above 2.0 after the second probation period will be dismissed from the university. However, if the student manages to raise the GPA above 2.0, then their name is removed from the probation list.

A student on probation is advised not to take more than 12 credit hours per semester (3-4 courses) until he/she is not removed from the probation list.

Repetition of Course with lower grades

Students who obtain a grade below 'C' will be allowed to improve their grades. In case a student with C+ grade would like to improve his/her grade will be required to get a written permission from the registrar office with the final approval of the Vice Chancellor.

Attendance Requirements

Abasyn University expects students to be punctual and regular in all classes. The students must attend 75% of total classes held in a semester. A student must also maintain at-least 65% in each course to be eligible to appear in the examination.

A student does not fulfill the above requirements will be automatically award 'F' grade in the concerned subject.

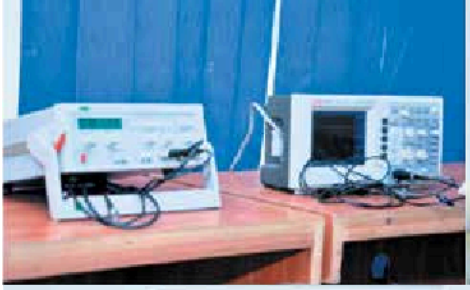
In case of an unexpected emergency or absence on genuine grounds, students must submit an application to Head/Dean office with all relevant documents. The Dean or a committee review these kinds of cases and recommend for approval in relaxation of attendance to the Vice Chancellor. In case, the students were absent from classes because of the University sponsored events, it will be the University responsibility to arrange make-up classes for these students.

Dean's List of Honors

A Student is placed on the Dean's list, if his/ her SGPA equals or exceeds 3.50 at the end of semester. Such a student receives a certificate and cash award and his/her name is also placed on the University's website. Only those students are included in this list who have completed the semester with regular course load prescribed in the study plan.

Vice-Chancellor's List of Honors

A student is placed on the Vice-Chancellor's Honours list, if his/her SGPA is 4.00 at the end of a semester. Such a student receives a certificate and cash award and his/her name is also placed on the University's website. Only those students are included in this list who have completed the semester with regular course load prescribed in the study plan.









Products Developed By R&D Labs, hosted at the Abasyn University Islamabad Campus

Renzym products are focused on the development of true SDRs with the minimum of implementation effort in the hardware. Our team is striving to provide our customers with state of the art SDR platforms and software frameworks that can enable them to build software defined radios directly from personal desktops/laptops using USB and sound card interfaces. Our main products include:

HF SDR Transceiver

HF SDR Transceiver is a high performance, direct conversion HF transceiver for high data rate, long range HF Tactical radios with frequency hopping and ALE capabilities. Its key features include 48 KHz of channel bandwidth, onboard DDS chip for carrier generation and USB interface.

SDR Communication Kit

SDR Communication Kit enables true SDR development directly from Matlab/LabView class room simulations. It is a USB powered device specifically designed for hands on communication system design experience for engineering labs and organizations involved in the SDR development.

Renzym SDR Framework

RSF is a digital modem software with more than 15 built-in PSK, QAM and FSK waveforms and C/ Python APIs for development and rapid prototyping of SDRs. It can be used with HST, SCK or other front end hardware to readily build a real-time communication system.

Mobile Application Development

Augmented Reality

Augmented reality techniques have been implemented for many applications at the R&D Labs in Abasyn University, some of the examples are shown below.

Video Play

Alphabets

Solar System

Medicine Description

AR Piano

AR Car

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Facilities at the Abasyn University Islamabad Campus

- Library is equipped with latest books, international research journals, latest reports on various topics and daily newpapers/magazines.

- Campus Wifi

  Students can enjoy wifi internet facility all around the campus

- Latest Computer Labs

  Equipped with latest technology and softwares

- Laboratories

  Equipped with latest technology and equipment

- Cafeteria
  Hygienic, Healthy Food Facility
- Girls Common Room

- Seminar Rooms
  Fully Equipped Seminar rooms available

- Masjid

- Extra Curricular Activities
  - Sports Gala
  - Industrial Trip
  - Study Tour
  - Annual Student's Week

Internships – Industrial training program during studies

o Compulsory internship programs are incorporated to the curriculum of bachelor degree to enable students to get latest knowledge and get working experience in multi-national organizations.

o The aim of the internship program is to enhance the professional competency among the students and to have industry collaboration.

o This will also help them to find good job or open up their own business.

We are planning to build another campus at Islamabad with a vision to provide world class facilities for teaching, study, entertainment and sports.

Abasyn University Societies

Abasyn University has a wide variety of clubs which promotes extra co-curricular activities, so that students along with their studies can lighten up, enhance their practical skills, groom their personalities and explore their hidden talents.

AMC (Abasyn Media Club) serves as a platform where all the latest news and events are updated whether hosted by themselves or other societies occurring in Abasyn University. Together with encourag- ing students to enhance their skills on photography content writing and editing.

Greping serves as a platform where students can enhance their skills by being updated on all the seminars and workshops related CMMI and Agile methodologies, Microsoft, python and other events oc- curring in this university.

Khakka is a society which promotes art, culture and drama. This is a club where a variety of events take place from arranging events such as Eid melad ul Nabi to organizing dramatic plays and romot- ing creativity within students.

This society promotes awareness within students about healthcare, knowledge about life threating diseases, and organizes events health related seminars and holds conferences related to biosciences.

Silver ink is a society which promotes Urdu and English literature. Along with that, it is also responsible for organizing debates, speech- es, book club discussions and other literary events, enhancing com- munication and writing skills, promoting creativity, critical thinking and love of books.

ACES (Abasyn Civil Engineers Society)


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