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Self-Assessment Report for BSCS Barani Institute of Management Sciences Session: 2022-2024

Self-Assessment Report

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INTRODUCTION

Computers and computing are an integral part of our lives today. Computing is revolutionizing the process of research, development, and discovery in all fields of engineering and science. The societal impact of computing continues to increase as computers become more broadly accessible. New technologies, such as many Artificial Intelligence, Machine Learning, Data Science, Core Processors, Mobile Computing, and Cloud Computing are reshaping the landscape of computing and new challenges are emerging as computer science becomes increasingly multidisciplinary. Leading-edge skills in Computer Science are in demand by employers across a wide range of industries.

A strong Computer Science department is essential to BIMS's mission to be a world-class university that prepares students to contribute to the advancements of society. Keeping in view the above, University Barani Institute of Management Sciences (BIMS) was established in 2013 with the aim of providing a high-quality education to our youth in the fields of Management Sciences, Computer Sciences, and Social/Natural Sciences. BIMS is producing CS/IT graduates who are well versed to provide CS/IT based solutions to the problems for all the sectors.

The aspire of offering BS (CS) program is to provide an opportunity for the students to gain up to-date practical knowledge; marketable skills, specialized competencies and valuable capability in the rapidly advancing field of Information Technology to ensure a successful future. The program produces graduates who will be flexible, pliable to change and able to face the challenges of the technology driven employment market. Toward these ends the program offers a set of core courses, science courses, general education & supportive courses. With the latest developments in the field of Computer Science, the institute regularly revises and updates its curriculum. More recently, emerging tools and technologies have been incorporated in the curriculum. The institute provides a variety of study programs such as Artificial Intelligence, Machine Learning, Databases, Programming, Web Design and Development, Networking, Management, Marketing and Accounting to enhance students' professional training and career opportunities. Students are offered opportunities to interact with leading professionals of industry to hone their skills according to market requirements.

CRITERION 1: PROGRAM MISSION, OBJECTIVES AND OUTCOMES

The self-assessment is based on a number of criteria. To meet each criterion several standards must be satisfied. This section describes how the standards of the Criterion are met.

Standard 1-1: The program must have documented measurable objectives that support institution mission statements.

Mission Statements:

The mission of BSCS program is to prepare students as professionals by imparting high quality education in the field of computing. Graduates of the program will take appropriate CS professional positions in industry and organizations, or pursue higher education and research in related disciplines along with sense of ethical and moral obligations.

Program Objectives:

The main elements which are present in the plan to achieve the program objectives are listed below:

- 1. The ability to design, implements, and analyze computational systems.
- 2. Development of a sound and a dynamic teaching system based on the experience and vision gathered from world reviews, literature, innovations, proceedings, symposia etc. for the award of degrees.
- 3. Designing and constantly updating the curriculum involving core subjects, elective subjects, specialized areas, internship programs and study tours.
- 4. Setting up of well-equipped specialized laboratories depending on the available resources.
- 5. Implementation of research projects funded by the universities and other agencies.
- 6. Development of linkages with national and international research organizations to foster research.

Table 1 Programs Objectives Assessment

Sr#	Objective	How	When	Improvement	Improvement
		Measured	Measured	Identified	Made
1	The ability to	Through	During last	Needs to	Assigned
	design, implement,	Final Year	two	improve	standard
	and analyze	Projects	semesters.	project quality	Projects to the
	Computational Systems				students
2	Development of a sound and dynamic teaching system.	Through quizzes, assignments and exams. Teacher training and refresh courses.	It is a regular Process as per Requisite	Techniques For Assessment required to be improved.	Exams are made more technical to assess the students.
3	Designing and	Assessed	At start	NIL	(update with
	constantly updating	through	every		recent changes)
	the curriculum.	feedback	Semester.		
		from the			
		market and			
		leading			
		institutes in			
		the country.			
4	To equip with specialized	Assessment is	It is a	Resources	No
	laboratories,	done through	continuous	need to be	improvement
	resources.	feedback	activity.	increased.	has been made
		from the		Needs to	yet.
		students.		equip	
				computer	
				labs.	
5	Implementation	Through final	At the end of	The latest	It's achieved to
	research projects.	degree	final degree	research and	some extent by
		project	project.	technology	giving students
				driven	many projects
				projects should	from the
				be	latest and future oriented research areas

					implemented.	which are currently underexplored.
6	Development of linkages with national and international research.	Through software exhibitions	At end degree	of	There should be visits to the industry or employers may be invited to visit BIMS.	An open house decided to be organized regularly every year.

Program Learning Outcomes

At the successful completion of BSCS degree, the students will be equipped with the following attributes.

1. Recognition of the need for and an ability to engage in continuing professional Development.

- 1. An ability to use current techniques, skills, and tools necessary for computing practice
- 2. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices
- 3. An ability to apply design and development principles in the construction of software systems of varying complexity

2. Be competent in theoretical and mathematical foundations of computer science and be able:

- 1. Apply fundamental concepts of discrete mathematics such as logic, proofs, set theory, relations, functions, and combinatory to model computational problems.
- 2. Demonstrate the application of abstract structures such as graphs, finite state machines, and recurrence relations to the solution of computer science problems.
- 3. Analyze and evaluate comparative performance of algorithms and data structures appropriate for solving computer science problems.

4. Apply concepts related to data structures such as lists, stacks, queues, arrays, graphs, trees, heaps, and hashing to design and create algorithms.

3. Be proficient in one programming language and have a basic knowledge of several others and be able to

- 1. Write efficient solutions to specific problems using an object-oriented programming language.
- 2. Write programs in assembly language.
- 3. Write programs in a procedural programming language.

4. Understand the hardware and software architecture of computer systems and be able to

- 1. Explain the function and interaction of computer processing units, memories, and input/output devices.
- 2. Define and explain elements of operating systems such as memory management, process scheduling, synchronization and interaction, and input/output devices.
- 3. Distinguish computer network elements and understand issues related to computer security.

5. Demonstrate the ability to participate in professional practices related to software engineering and be able to

- 1. Negotiate, clarify, and document customer requirements.
- 2. Apply knowledge of fundamental algorithms, programming language concepts, and design patterns to determine an overall design for a software system.
- 3. Implement a fully specified system,
- 4. Test a fully specified system.
- 5. Plan and monitor the progress of software projects to ensure on time delivery of a high-quality system.

6. Be able to communicate effectively about computer science-related topics and be able to

- 1. Deliver an audience-sensitive oral technical presentation.
- 2. Write an audience-sensitive technical document.
- 3. Contribute effectively on software-based system development teams.

7. Demonstrate the ability to be responsible practitioners of computer science and

understand the social and ethical implications of computing and be able to

- 1. Demonstrate ways in which computers pose new ethical questions or pose new versions of standards, moral problems and dilemmas.
- 2. Recognize and, when appropriate, to resolve ethical problems or dilemmas related to the computing profession.

Standard 1-2: The program must have documented outcomes for graduating students. It must be documented that the outcomes support the program objectives and that graduating students are capable of performing these outcomes.

Table 2 Program Outcomes and Their Relationship with Objectives

			Objectives			
		1	2	3	4	5
Outcomes	1	++	+++	+++	++	+++
	2	++	++	++	++	+++
	3	++	+++	+++	++	++
	4	++	++	+++	++	+
	5	+	++	++	++	++

+ = Moderately Satisfactory

++ = Satisfactory

+++ = Highly Satisfactory

Program Assessment Results

This section contains the Teacher Assessment and Student Course Evaluation in summarizing form as well as in detail form.

Teacher Evaluation

A detailed evaluation of teachers is given below.

Ms. Farah Naz Anika

The graph for "The Instructor's effort to maintain discipline.", shows that 68% are strongly agreed, 43% are agreed, 30% are uncertain, 2% disagreed and 10% are strongly disagreed. The graph for "The subject matter presented in the course has increased your knowledge of the subject" shows that 90% are strongly agreed, 70% are agreed, 45% are uncertain, 8% disagreed and 1% are strongly disagreed. The graph for "The communication of course breakdown with students and coverage of course according to breakdown", shows that 75% are strongly agreed, 10% are agreed, 8% are uncertain, 1% disagreed and 2% are strongly disagreed. The graph for "Number of quizzes assignments taken with correspondence to course breakdown", shows that 75% are strongly agreed, 50% are agreed, 5% are uncertain, 13% disagreed and 2% are strongly disagreed.



General Comments of the Students about the Teacher Strengths:

- Good grip at course
- Punctual
- Fair in examination

Good Teaching method

Weakness:

No significance weakness was found.

Ms. Muneeba Islam

The graph for "The subject matter presented in the course has increased your knowledge of the subject" shows that 80% are strongly agreed, 75% are agreed, 43% are uncertain, 21% disagreed and 2% are strongly disagreed. "The instructor is prepared for each class", shows that 57% are strongly agreed, 60% are agreed, 50% are uncertain, 16% disagreed and 1% are strongly disagreed. The graph for "The subject matter presented in the course has increased your knowledge of the subject" shows that 80% are strongly agreed, 67% are agreed, 42% are uncertain, 21% disagreed and 1% are strongly disagreed. The graph for "The communication of course breakdown with students and coverage of course according to breakdown", shows that 70% are strongly agreed, 57% are agreed, 70% are uncertain,60% disagreed and 1% are strongly disagreed. "The Instructor provides additional material apart from text", shows that 71% are strongly agreed, 26% are agreed, 42% are uncertain, 3% disagreed and 1% are strongly disagreed. The graph for "The instructor maintains an environment that is conducive to learning.", shows that 97% are strongly agreed, 43% are agreed, 24% are uncertain, 9% disagreed and 5% are strongly disagreed.



General Comments of the Students about the Teacher Strengths:

- Course intend delivered well
- Instructor demonstrate the knowledge of subject very well

- Instructor provides additional material apart from the text
- Fair marking
- Kind teacher

Weakness:

No significant weakness was found.

Mr. Masim Ali

The graph for "The instructor timely quizzes and assignments.", shows that 90% are strongly agreed, 35% are agreed, 0% are uncertain, 3% disagreed and 2% are strongly disagreed. The graph for "The subject matter presented in the course has increased your knowledge of the subject" shows that 80% are strongly agreed, 71% are agreed, 45% are uncertain, 35% disagreed and 1% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 34% are strongly agreed, 60% are agreed, 50% are uncertain, 17% disagreed and 9% are strongly disagreed. The graph for "The Instructor provides additional material apart from text", shows that 79% are strongly agreed, 34% are agreed, 43% are uncertain, 3% disagreed and 8% are strongly disagreed.



General Comments of the Students about the Teacher

Strengths:

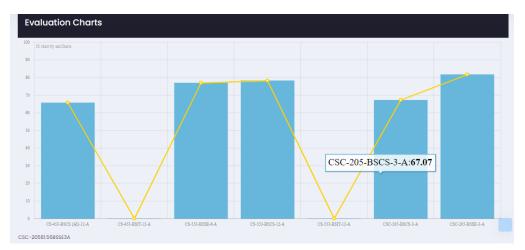
- Well prepared
- Instructor demonstrate the knowledge of subject very well
- Good teaching method

Weakness:

No significant weakness was found.

Ms. Sana Karamat

The graph for "The instructor maintains an environment that is conducive to learning." shows that 79% are strongly agreed, 42% are agreed, 23% are uncertain, 6% disagreed and 4% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 65% are strongly agreed, 60% are agreed, 50% are uncertain, 15% disagreed and 1% are strongly disagreed. The graph for "Timely return quizzes and assignments" shows that 90% are strongly agreed, 50% are agreed, 5% are uncertain, 6% disagreed and 2% are strongly disagreed. "The Instructor provides additional material apart from text", shows that 79% are strongly agreed, 31% are agreed, 42% are uncertain, 2% disagreed and 1% are strongly disagreed.



General Comments of the Students about the Teacher Strengths:

- Handles queries very well
- Understands students' problems
- Makes time for students

Weakness:

No significant weakness was found.

Mr. Ibran Hussain

The graph for "The subject matter presented in the course has increased your knowledge of the subject", shows that 80% are strongly agreed, 70% are agreed, 42% are uncertain, 21% disagreed and 1% are strongly disagreed. The graph for "Timely return quizzes and assignments" shows that 60% are strongly agreed, 50% are agreed, 4% are uncertain, 5% disagreed and 2% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 59% are strongly agreed, 60% are agreed, 50% are

uncertain,15% disagreed and 1% are strongly disagreed. The graph for "The instructor maintains an environment that is conducive to learning." shows that 78% are strongly agreed, 46% are agreed, 40% are uncertain, 10% disagreed and 5% are strongly disagreed. The Instructor provides additional material apart from text", shows that 71% are strongly agreed,35% are agreed, 42% are uncertain, 3% disagreed and 1% are strongly disagreed.



General Comments of the Students about the Teacher

Strengths:

- Well prepared
- Punctual
- Instructor demonstrate the knowledge of subject very well
- Instructor provides additional material apart from the text
- Effective lab tasks

Weakness:

No significant weakness was found.

Ms. Maryam Bibi

The graph for "The instructor maintains an environment that is conducive to learning.", shows that 75% are strongly agreed, 45% are agreed, 30% are uncertain, 10% disagreed and 2% are strongly disagreed. The graph for The graph for "The Instructor's effort to maintain discipline.", shows that 87% are strongly agreed, 83% are agreed, 22% are uncertain, 2% disagreed and 1% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 85% are

strongly agreed, 60% are agreed, 52% are uncertain, 12% disagreed and 1% are strongly disagreed. "The subject matter presented in the course has increased your knowledge of the subject" shows that 68% are strongly agreed, 70% are agreed, 42% are uncertain, 20% disagreed and 0% are strongly disagreed. "The Instructor provides additional material apart from text", shows that 70% are strongly agreed, 33% are agreed, 64% are uncertain, 5% disagreed and 2% are strongly disagreed.



General Comments of the Students about the Teacher Strengths:

- Well-rehearsed
- Work hard on making assignments and quizzes
- Fair marking

Weakness:

• The Instructor make more conceptual lab tasks

Mr. Ali Haidry

The graph for "The Instructor's effort to maintain discipline.", shows that 68% are strongly agreed, 43% are agreed, 30% are uncertain, 2% disagreed and 2% are strongly disagreed. The graph for "The subject matter presented in the course has increased your knowledge of the subject" shows that 90% are strongly agreed, 70% are agreed, 45% are uncertain, 8% disagreed and 1% are strongly disagreed. The graph for "The communication of course breakdown with students and coverage of course according to breakdown", shows that 75% are strongly agreed, 10% are agreed, 8% areuncertain, 1% disagreed and 2% are strongly disagreed. The graph for "Number of quizzes assignments taken with correspondence to course breakdown", shows that 75% are strongly agreed, 50% are agreed, 5% are

uncertain, 3% disagreed and 2% are strongly disagreed.



General Comments of the Students about the Teacher Strengths: Teacher Strengths:

- Method of teaching is impressive.
- Have an excellent teaching methodology.

Weakness:

No significance weakness was found.

Mr. Kamran J

The graph for "The instructor timely quizzes and assignments.", shows that 90% are strongly agreed, 35% are agreed, 0% are uncertain, 3% disagreed and 2% are strongly disagreed. The graph for "The subject matter presented in the course has increased your knowledge of the subject" shows that 80% are strongly agreed, 71% are agreed, 45% are uncertain, 35% disagreed and 1% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 34% are strongly agreed, 60% are agreed, 50% are uncertain, 17% disagreed and 9% are strongly disagreed. The graph for "The Instructor provides additional material apart from text", shows that 79% are strongly agreed, 34% are agreed, 43% are uncertain, 3% disagreed and 8% are strongly disagreed.



Strengths:

- · Best teacher
- Fair marking
- Punctual and well behaved with students.

Weakness:

No significant weakness was found.

Mr. Shahzaib Iqbal



The e graph for "The subject matter presented in the course has increased your knowledge of the subject" shows that 25% are strongly agreed, 44% are agreed, 5% are uncertain, 22% disagreed and 0% are strongly disagreed. The graph for "The Instructor's effort to maintain discipline.", shows that 48% are strongly agreed, 66% are agreed, 0% are uncertain, 2% disagreed and 1% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 66% are strongly agreed, 60% are agreed, 55% are uncertain, 17% disagreed and 1% are strongly disagreed. The graph

for "The instructor maintains an environment that is conducive to learning.", shows that 50% are strongly agreed, 45% are agreed, 12% are uncertain, 2% disagreed and 3% are strongly disagreed.

General Comments of the Students about the Teacher Strengths:

- Well-rehearsed
- Makes fair judgment in class matters
- Maintains an environment that is conducive to learning
- Punctual and respects the students
- The Instructor provides additional material apart from text
- The subject matter presented in the course has increased your knowledge of the subject

Weaknesses:

No significant weakness was found.

Mr. Luqman:

The graph for "The instructor is prepared for each class", shows that 78% are strongly agreed, 60% are agreed, 55% are uncertain, 14% disagreed and 1% are strongly disagreed. "The Instructor provides additional material a part from text", shows that 38% are strongly agreed, 35% are agreed, 2% are uncertain, 5% disagreed and 1% are strongly disagreed. The graph for "The instructor maintains an environment that is conducive to learning.", shows that 60% are strongly agreed, 45% are agreed, 20% are uncertain, 10% disagreed and 5% are strongly disagreed. The graph for "The Instructor's effort to maintain discipline.", shows that 59% are strongly agreed, 81% are agreed, 0% are uncertain, 2% disagreed and 1% are strongly disagreed.



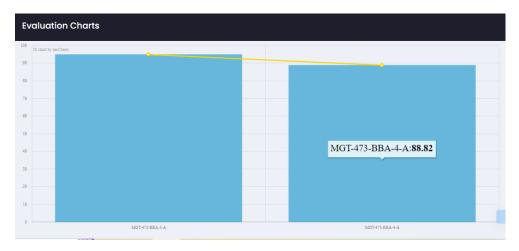
General Comments of the Students about the Teacher Strengths:

- Punctual in classes and fair in examination
- Well prepared
- Good communication

Weaknesses:

- Course material should be more updated.
- The assignment and exam should cover the material presented in the class.

Mr. Suhail Amin



The graph for "Number of quizzes assignments taken with correspondence to course breakdown" shows that 82% are strongly agreed, 73% are agreed, 3% are uncertain, 30% disagreed and 5% are strongly disagreed. The graph for "The coverage of course according to breakdown", shows that 74% are strongly agreed, 22% are agreed, 12% are uncertain, 22% disagreed and 5% are strongly disagreed. The graph for "The Instructor's effort to maintain discipline.", shows that 48% are strongly agreed, 68% are agreed, 0% are uncertain, 2 disagreed and 1% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 65% are strongly agreed, 60% are agreed, 43% are uncertain, 15% disagreed and 1% are strongly disagreed. The graph for "The instructor maintains an environment that is conducive to learning.", shows that 70% are strongly agreed, 44% are agreed, 5% are uncertain, 1% disagreed and 11% are strongly disagreed.

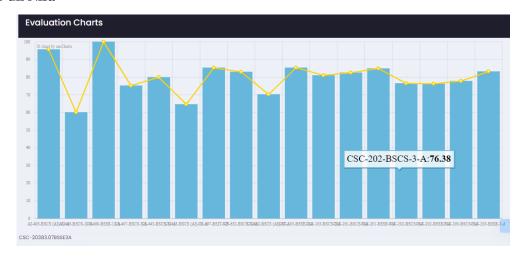
General Comments of the Students about the Teacher Strengths:

- Comprehensive course material
- Good Teaching method
- Take Quiz Weekly

Weakness:

No significant weakness was found.

Ms. Fakhr un Nisa



The graph for "The communication of course breakdown with students and coverage of course according to breakdown", shows that 89% are strongly agreed, 12% are agreed, 2% are uncertain, 8% disagreed and 1% are strongly disagreed. The graph for "Number of quizzes assignments taken with correspondence to course breakdown", shows that 65% are strongly agreed, 75% are agreed, 3% are uncertain, 30% disagreed and 3% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 66% are strongly agreed, 60% are agreed, 42% are uncertain, 16% disagreed and 1% are strongly disagreed. The graph for "The Instructor maintains an environment that is conducive to learning.", shows that 70% are strongly agreed, 45% are agreed, 5% are uncertain, 1% disagreed and 2% are strongly disagreed.

General Comments of the Students about the Teacher Strengths:

- Helpful and hard working
- Hard working teacher briefly explain every topic and student query.

Weakness:

Instructor should encourage class participation

Ms. Sumaira Sarwar

The graph for "The coverage of course according to breakdown", shows that 50% are strongly agreed, 20-% are agreed, 4% are uncertain, 20% disagreed and 5% are strongly disagreed. The graph for "Number of quizzes assignments taken with correspondence to course breakdown", shows that 55% are strongly agreed, 68% are agreed, 5% are uncertain, 30% disagreed and 6% are strongly disagreed. The graph for "The instructor is prepared for each class", shows that 68% are strongly agreed, 60% are agreed, 45% are uncertain, 16% disagreed and $\frac{2}{1}$ % are strongly disagreed. The graph for "The

Instructor maintains an environment that is conducive to learning.", shows that 60% are strongly agreed, 45% are agreed, 8% are uncertain, 2% disagreed and 5% are strongly disagreed. The graph for "Coverage of course according to breakdown" shows that 50% are strongly agreed, 20% are agreed, 5% are uncertain, 20% disagreed and 6% are strongly disagreed.



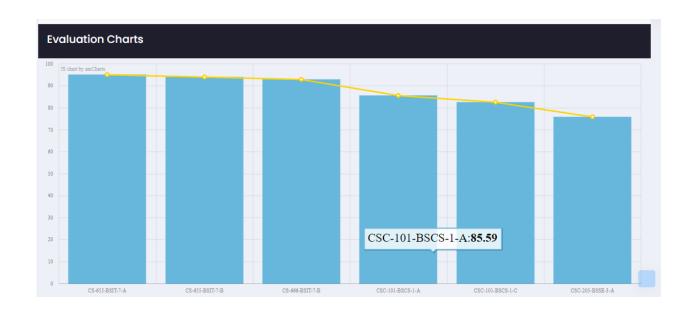
General Comments of the Students about the Teacher Strengths:

- Course material is updated.
- The instructor is well prepared for each class
- The Instructor maintains an environment that is conducive to learning.

Weakness:

No significant weakness was found

Ms. Iqra Yasmin

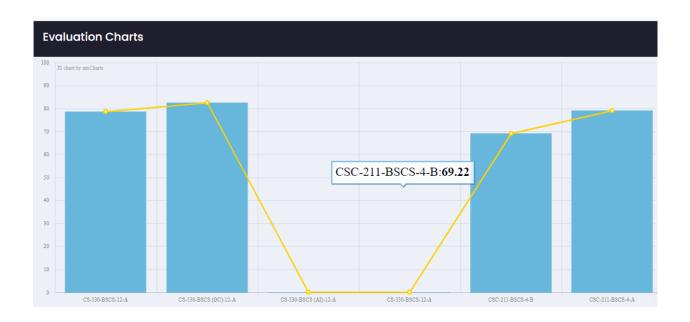


- Course material is updated.
- The instructor is well prepared for each class
- The Instructor maintains an environment that is conducive to learning.

Weakness:

No significant weakness was found

Mr. Shujat Hussain

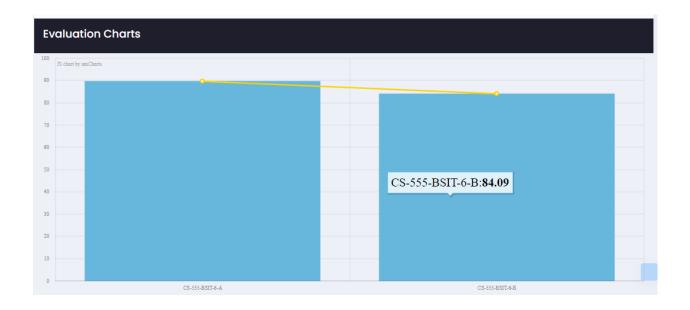


- Course material is updated.
- The instructor is well prepared for each class
- The Instructor maintains an environment that is conducive to learning.

Weakness:

No significant weakness was found

Mr. Muhammad Munawar Zaman



- Course material is updated.
- The instructor is well prepared for each class
- The Instructor maintains an environment that is conducive to learning.

Weakness:

No significant weakness was found

Mr. Wahab Ali



- Course material is updated.
- The instructor is well prepared for each class
- The Instructor maintains an environment that is conducive to learning.

Weakness:

No significant weakness was found

Ms. Aneela Zawar

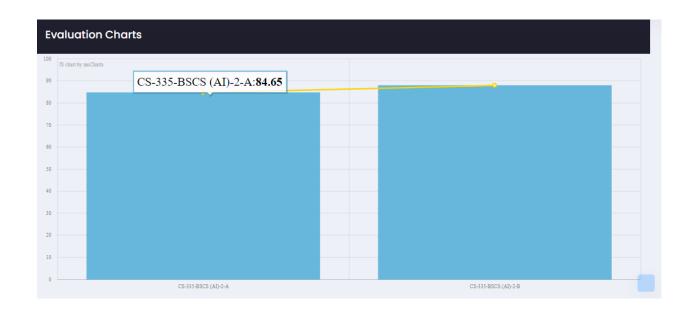


- Course material is updated.
- The instructor is well prepared for each class
- The Instructor maintains an environment that is conducive to learning.

Weakness:

No significant weakness was found

Mr. Abdul Salam



- Course material is updated.
- The instructor is well prepared for each class
- The Instructor maintains an environment that is conducive to learning.

Weakness:

No significant weakness was found

Mr. Rana Saoud Shaukat



- Course material is updated.
- The instructor is well prepared for each class
- The Instructor maintains an environment that is conducive to learning.

Weakness:

No significant weakness was found

Standard 1-3: The results of the program's assessment and the extent to which they are used to improve the program must be documented.

Strengths of Program/Institute

The course curriculum is well designed and updated. The institute has hired new faculty members to meet the needs of the students. The curriculum is up to date.

Weakness of Program/Institute

- o There is room of improvement in space management.
- Co curricular and extra curricular activities may be increased like Job fairs, external linkages, seminars, workshops.

Standard 1-4: The institute must assess its overall performance periodically using quantifiable measures.

At BS(CS) levels, such topics are covered which are related to the latest trends so that students can have knowledge of the research fields and final degree projects are preferred to be the implementation of some latest existing research work.

Table 3 Performance measures for research activities

Faculty	Publications in Journals/Conferences	Publications in proceedings/abstracts	Research Projects
Dr. Muzzamil Ghaffar	6	-	8
Dr. M Asif Khan	6	1	3
Dr. Javaid Ullah Khan	4	3	-
Dr. Rehan Masood	2	3	3
Dr. M. Shahid	2	3	3
Mr. Hamid Hussain Awan	1	3	-
Mr. Fazal Rehman Shamil	2	2	4
Mr. Iftikhar	-	1	5
Mr. Noman Al Hassan	-	3	4

Ms. Sehrish Khalil	1	-	-
Ms. Qurat-Ul-Ain Alam	1	3	1
Ms. Ayesha Siddique	-	-	-
Mr. Sohail Ahmed	1	2	-
Mr. Seemab Janjua	-	3	5
Ms. Saira Sultana	-	2	6
Mr. Shahid Rathore	1	1	-
Ms. Tayyaba Kalsoom	-	1	3
Ms. Sadia Zar	-	2	4
Ms. Sumaira Aslam	-	2	2

Future Plans

The Management of BIMS has planned a number of research studies and practical work in future dealing with the issues of computer science and information technology as according to the requirement of HEC

Table 4: Quantitative assessment of the department

Sr. #	Particular	No.	Remarks
Ι	BSCS and BSIT degrees awarded	545	For the year 2022-2024
II	MS(IT) degree awarded	-	
III	Ph.D. degree awarded	-	
Iv	Post-Doc fellowship	-	
V	Students: Faculty ratio	-	14:1
VI	Technical: Nontechnical Ratio	-	Fulfill HEC criteria

Alumni Survey

The purpose of this survey was to obtain alumni input on the quality of education, knowledge and communication and Interpersonal skills they received and the level of preparation they had at University. The total of 52 students provided the data. The survey results were shown as follows.

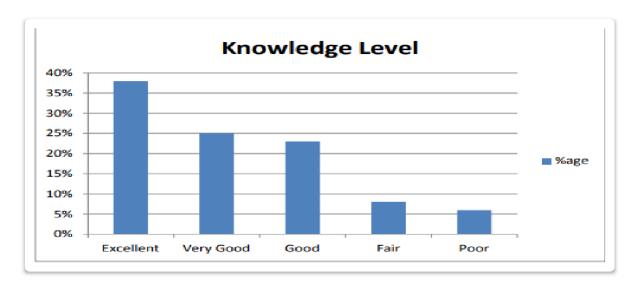


Figure 3: Result of Alumni Survey

It has been observed that 38% responded excellent regarding their abilities to work. 25% answered very good, 23% responded that department has improved their presentation skills. 08% has shown fair response and 06% have shown poor response.

Survey of Graduating Students

The students are capable to work in any software house and telecom industry because they have the latest knowledge and ability to work with advanced tools and techniques. The students have also the knowledge to conduct research in any field of computer science and to teach in any academic institute as well. A survey is conducted for the students of last semester and feedback is collected on Performa 3. The results are summarized. A set of questions is present in the Performa 3. The graph from the summarized results shows that 48% students are very satisfied from program, 31% are satisfied, 10% are dissatisfied, and 11% are very dissatisfied.

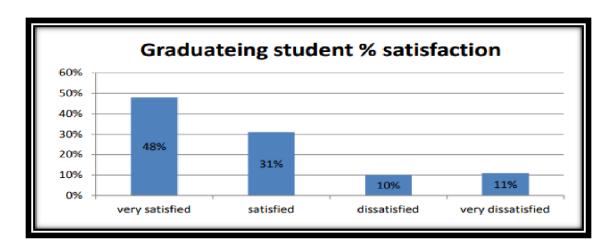


Figure 4: Survey of Graduating Students

Following is a summary of feedback from graduating students

Best Aspects of the Program:

- Qualified faculty
- The students have the ability to work with lots of pressure
- Introduction to the new technologies, tools and equipment
- The environment is conducive to learning

Weaknesses:

• Room of improvement is present in availability of computing resources for students.

`

Employer Survey

A survey has been conducted and feedback has been collected from the employees where students have BSCS degree from BIMS are working. The results are summarized in the figure given below.

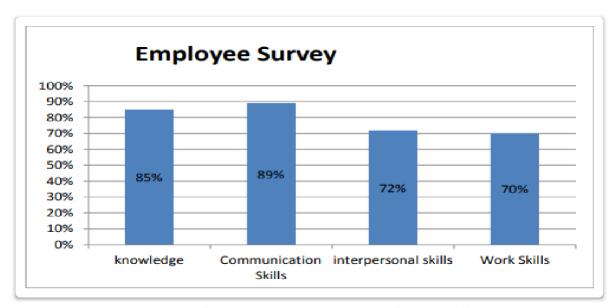


Figure 5: Employer Survey for Determining the Student's Skill Level

The graph shows the employees view regarding the students. The 85% students have enough knowledge regarding their field. The 89% have communication skills to communicate with the people of their own field. The 72% students have Interpersonal skills and 70% students have work skills related to the field. All the employees were of the view that the students have potential and they can be more productive.

CRITERION 2: CURRICULUM DESIGN AND ORGANIZATION

Degree Title: BS (CS) Bachelors of Sciences in Computer

All the courses for degree program are developed by Academic Council Committee of PMAS Arid Agriculture University Rawalpindi. BIMS strictly follows the rules and regulations of Parent University. BIMS being an affiliate of PMAS-AAUR follows the curriculum of University Institute of Information Technology (UIIT). This body is authorized to formulate a syllabus and course content. The Director of the UIIT is the convener of this body. The courses are then sent to the academic council for approval.

Definition of Credit Hour

A student must complete a definite number of credit hours. One credit hour is one theory lecture or three hours laboratory (practical/week). One credit hour carries 20 marks.

Degree plan

Presently Three-degree programs are being offered in Department of Computer Sciences General Computing and Artificial Intelligence. The BS (CS) degree program consists of 4 academic years / 8 semesters.

Areas	Credit Hours
General Education Requirement	30
Interdisciplinary/Allied Requirement (Mathematics & Supporting Courses)	12
Major (Disciplinary) Computing Core/Domain Core/Domain Elective Requirement	82
Capstone Project/Internship/Field Experience (FYP-1 & II)	02+04=06
Totals	130

Code	Pre-Reqs	Course Title	Domain	Cr Hrs
		Computing Core Courses		
CSC-101		Programming Fundamentals	Core	4(3-3)
CSC-102	CSC-101	Object Oriented Programming	Core	4(3-3)
CSC-103		Database Systems	Core	4(3-3)
CSC-111		Digital Logic Design	Core	3(2-3)
CSC-201	CSC-101	Data Structures	Core	4(3-3)
CSC-202		Information Security	Core	3(2-3)
CSC-203		Artificial Intelligence	Core	3(2-3)
CSC-204		Computer Networks	Core	3(2-3)
CSC-205		Software Engineering	Core	3(3-0)
CSC-211	CSC-111	Computer Organization & Assembly Language	Core	3(2-3)
CSC-301		Operating Systems	Core	3(2-3)
CSC-401	CSC-201	Analysis of Algorithms	Core	3(3-0)
CSC-498		Final Year Project – I	Core	2(0-6)
CSC-499	CSC-498	Final Year Project – II	Core	4(0-12)
CSC-398		Internship	Core	3(0-3)
		Domain Core Courses		

CSC-302		Theory of Automata	Domain Core	3(3-0)
CSC-303	CSC-103	Advance Database Management Systems	Domain Core	3(2-3)
CSC-311	CSC-211	Computer Architecture	Domain Core	3(2-3)
CSC-312	CSC-302	Compiler Construction	Domain Core	3(2-3)
CSC-313		HCI & Computer Graphics	Domain Core	3(2-3)
CSC-314	CSC-301	Parallel & Distributed Computing	Domain Core	3(2-3)
		Domain Elective Courses		
CSC-251		Web Technologies	Domain Elective	3(2-3)
CSC-252	CSC-102	Advanced Programming	Domain Elective	3(2-3)
CSC-351	CSC-251	Web Engineering	Domain Elective	3(2-3)
CSC-352		Numerical Analysis	Domain Elective	3(2-3)
CSC-353		Mobile Application Development 1	Domain Elective	3(2-3)
CSC-354	CSC-202	Cyber Security	Domain Elective	3(2-3)
CSE-422		Software Testing & Quality Assurance	Domain Elective	3(2-3)
CSC-355		Cloud Computing	Domain Elective	3(2-3)
CSC-356		Computer Graphics	Domain Elective	3(2-3)
CSE-325		Object Oriented Analysis & Design	Domain Elective	3(2-3)
CSC-451		Mobile Application Development 2	Domain Elective	3(2-3)
		Mathematics & Supporting Courses		
MTH-102	MTH-101	Multivariable Calculus	Maths	3(3-0)
MTH-103	MTH-101	Linear Algebra	Maths	3(3-0)
STT-101		Probability & Statistics	Maths	3(3-0)
ENG-401	ENG-201	Technical & Business Writing	ENG	3(3-0)
		Elective Supporting Courses		
MGT-351		Social Science (Example: Introduction to Marketing)	SS	3(3-0)
MGT-322		Social Science (Example: Financial Accounting)	SS	3(3-0)

		General Education Courses		
CSC-100		Application of Information & Communication Technologies	GER	3(2-3)
CSC-110		Discrete Structures	GER	3(3-0)
MTH-101		Calculus and Analytic Geometry	GER	3(3-0)
ENG-102		Functional English	GER	3(3-0)
ENG-201	ENG-102	Expository Writing	GER	3(3-0)
IS-201		Islamic Studies/Ethics	GER	2(2-0)
PHY-201		Applied Physics	GER	3(2-3)
FMPE-580		Precision Agriculture	GER	3 (2-1)
LWCE-601		GIS & Remote Sensing	GER	2 (1-1)
SSH-301		Introduction to Management	GER	2(2-0)
SSH-401		Entrepreneurship	GER	2(2-0)
SSH-402		Professional Practices	GER	2(2-0)
SSH-403		Civics and Community Engagement	GER	2(2-0)
SSH-404		Ideology and Constitution of Pakistan	GER	2(2-0)

Bachelor of Science in Computer Science (BSCS) Specialization in General Computing - Study Plan

#	Code	Pre-Regs	Course Title	Domain	Cr Hr
		-	Semester 1		
1	CSC-100		Application of Information & Communication Technologies	GER	3 (2-3)
2	CSC-101		Programming Fundamentals	Core	4 (3-3)
3	CSC-110		Discrete Structures	GER	3 (3-0)
4	MTH-101		Calculus and Analytic Geometry	GER	3 (3-0)
5	ENG-102		Functional English	GER	3 (3-0)
					16(14-6)
			Semester 2		
6	CSC-102	CSC-101	Object Oriented Programming	Core	4 (3-3)
7	CSC-103		Database Systems	Core	4 (3-3)
8	CSC-111		Digital Logic Design	Core	3 (2-3)
9	MTH-102	MTH-101	Multivariable Calculus	Math	3 (3-0)
10	STT-101		Probability & Statistics	Math	3 (3-0)
					17(14-9)
			Semester 3		
11	CSC-201	CSC-101	Data Structures	Core	4 (3-3)
12	CSC-202		Information Security	Core	3 (2-3)
13	CSC-203		Artificial Intelligence	Core	3 (2-3)
14	CSC-204		Computer Networks	Core	3 (2-3)
15	CSC-205		Software Engineering	Core	3 (3-0)
16	MTH-103	MTH-101	Linear Algebra	Math	3 (3-0)
					19(15-12)
			Semester 4		
17	CSC-211	CSC-111	Computer Organization & Assembly Language	Core	3 (2-3)
18			Domain Elective 1	Domain Elective	3 (2-3)
19			Domain Elective 2	Domain Elective	3 (2-3)
20	PHY-201		Natural Science (Applied Physics)	GER	3 (2-3)
21	ENG-201	ENG-102	Expository Writing	GER	3 (3-0)
22	IS-201		Islamic Studies/Ethics	GER	2 (2-0)
					17(13-12)
			Semester 5		
23	CSC-301		Operating Systems	Core	3 (2-3)
24	CSC-302		Domain Core 1 (Theory of Automata)	Domain Core	3 (3-0)
25	CSC-303	CSC-103	Domain Core 2 (Advance Database Management Systems)	Domain Core	3 (2-3)
26			Domain Elective 3	Domain Elective	3 (2-3)
27			Domain Elective 4	Domain Elective	3 (2-3)

28	SSH-301		Social Science (Introduction to Management)	SS	2 (2-0)
29	CSC-398		Internship	Core	3 (0-3)
					17(13-12)
			Semester 6		
30	CSC-311	CSC-211	Domain Core 3 (Computer Architecture)	Domain Core	3 (2-3)
31	CSC-312	CSC-302	Domain Core 4 (Compiler Construction)	Domain Core	3 (2-3)
32	CSC-313		Domain Core 5 (HCI & Computer Graphics)	Domain Core	3 (2-3)
33	CSC-314	CSC-301	Domain Core 6 (Parallel & Distributed Computing)	Domain Core	3 (2-3)
34			Domain Elective 5	Domain Elective	3 (2-3)
35			Domain Elective 6	Domain Elective	3 (2-3)
					18(12-18)
			Semester 7		
36	CSC-498		Final Year Project – I	Core	2 (0-6)
37	CSC-401	CSC-201	Analysis of Algorithms	Core	3 (3-0)
38			Domain Elective 7	Domain Elective	3 (2-3)
39	MGT-351		Elective Supporting Course (Introduction to Marketing)	SS	3 (3-0)
40	ENG-401	ENG-201	Technical & Business Writing	ENG	3 (3-0)
41	SSH-401		Entrepreneurship	GER	2 (2-0)
					16(13-9)
			Semester 8		
42	CSC-499	CSC-498	Final Year Project – II	Core	4 (0-12)
43	SSH-402		Arts & Humanities (Professional Practices)	GER	2 (2-0)
44	SSH-403		Civics and Community Engagement	GER	2 (2-0)
45	SSH-404		Ideology and Constitution of Pakistan	GER	2 (2-0)
					10(6-12)

Bachelor of Science in Computer Science (BSCS) Specialization in Artificial Intelligence

Code	Pre-Reqs	Course Title	Domain	Cr Hr
		Computing Core Courses		
CSC-101		Programming Fundamentals	Core	4 (3-3)
CSC-102	CSC-101	Object Oriented Programming	Core	4 (3-3)
CSC-103		Database Systems	Core	4 (3-3)
CSC-111		Digital Logic Design	Core	3 (2-3)
CSC-201	CSC-101	Data Structures	Core	4 (3-3)
CSC-202		Information Security	Core	3 (2-3)
CSC-203		Artificial Intelligence	Core	3 (2-3)
CSC-204		Computer Networks	Core	3 (2-3)
CSC-205		Software Engineering	Core	3 (3-0)
CSC-211	CSC-111	Computer Organization & Assembly Language	Core	3 (2-3)
CSC-301		Operating Systems	Core	3 (2-3)
CSC-401	CSC-201	Analysis of Algorithms	Core	3 (3-0)
CSC-498		Final Year Project – I	Core	2 (0-6)
CSC-499	CSC-498	Final Year Project – II	Core	4 (0-12)
CSC-398		Internship	Core	3(0-3)
		Domain Core Courses		
CSC-302		Theory of Automata	Domain Core	3 (3-0)
CSC-303	CSC-103	Advance Database Management Systems	Domain Core	3 (2-3)
CSC-311	CSC-211	Computer Architecture	Domain Core	3 (2-3)
CSC-312	CSC-302	Compiler Construction	Domain Core	3 (2-3)
CSC-313		HCI & Computer Graphics	Domain Core	3 (2-3)
CSC-314	CSC-301	Parallel & Distributed Computing	Domain Core	3 (2-3)
		Domain Elective Courses		
CAI-261		Programming for AI	Domain Elective	3 (2-3)
CAI-262	CSC-203	Machine Learning	Domain Elective	3 (2-3)

CAI-361	CAI-261	Artificial Neural Networks & Deep Learning	Domain Elective	3 (2-3)
CAI-362	C/11 201	Knowledge Representation & Reasoning	Domain Elective	3 (2-3)
CAI-363	CAI-361	Computer Vision	Domain Elective	3 (2-3)
CAI-364	CAI-361	Natural Language Processing	Domain Elective	3 (2-3)
CAI-461	CAI-262	Reinforcement Learning	Domain Elective	3 (2-3)
CAI-365		Fuzzy Systems	Domain Elective	3 (2-3)
CAI-366		Swarm Intelligence	Domain Elective	3 (2-3)
CAI-367		Agent Based Modeling	Domain Elective	3 (2-3)
CAI-462		Speech Processing	Domain Elective	3 (2-3)
CSC-251		Web Technologies	Domain Elective	3(2-3)
CSC-353		Mobile Application Development 1	Domain Elective	3(2-3)
		Mathematics & Supporting Courses		` /
MTH-102	MTH-101	Multivariable Calculus	Maths	3 (3-0)
MTH-103	MTH-101	Linear Algebra	Maths	3 (3-0)
STT-101		Probability & Statistics	Maths	3 (3-0)
ENG-401	ENG-201	Technical & Business Writing	ENG	3 (3-0)
		Elective Supporting Courses		
MGT-351		Social Science (Example: Introduction to Marketing)	SS	3 (3-0)
MGT-322		Social Science (Example: Financial Accounting)	SS	3 (3-0)
		General Education Courses		
CSC-100		Application of Information & Communication Technologies	GER	3 (2-3)
CSC-110		Discrete Structures	GER	3 (3-0)
MTH-101		Calculus and Analytic Geometry	GER	3 (3-0)
ENG-102		Functional English	GER	3 (3-0)
ENG-201	ENG-102	Expository Writing	GER	3 (3-0)
IS-201		Islamic Studies/Ethics	GER	2 (2-0)
PHY-201		Applied Physics	GER	3 (2-3)
FMPE-580		Precision Agriculture	GER	3 (2-3)
LWCE-601		GIS & Remote Sensing	GER	3 (2-3)
SSH-301		Introduction to Management	GER	2 (2-0)
SSH-401		Entrepreneurship	GER	2 (2-0)
SSH-402		Professional Practices	GER	2 (2-0)
SSH-403		Civics and Community Engagement	GER	2 (2-0)
SSH-404		Ideology and Constitution of Pakistan	GER	2 (2-0)

Bachelor of Science in Computer Science (BSCS) **Specialization in Artificial Intelligence - Study Plan**

#	Code	Pre-Reqs	Course Title	Domain	Cr Hr
			Semester 1		
1	CSC-100		Application of Information & Communication Technologies	GER	3 (2-3)
2	CSC-101		Programming Fundamentals	Core	4 (3-3)
3	CSC-110		Discrete Structures	GER	3 (3-0)
4	MTH-101		Calculus and Analytic Geometry	GER	3 (3-0)
5	ENG-102		Functional English	GER	3 (3-0)
					16(14-6)
			Semester 2		
6	CSC-102	CSC-101	Object Oriented Programming	Core	4 (3-3)
7	CSC-103		Database Systems	Core	4 (3-3)
8	CSC-111		Digital Logic Design	Core	3 (2-3)
9	MTH-102	MTH-101	Multivariable Calculus	Maths	3 (3-0)
10	STT-101		Probability & Statistics	Maths	3 (3-0)
					17(14-9)
			Semester 3		
11	CSC-201	CSC-101	Data Structures	Core	4 (3-3)
12	CSC-202		Information Security	Core	3 (2-3)

13	CSC-203		Artificial Intelligence	Core	3 (2-3)
14	CSC-204		Computer Networks	Core	3 (2-3)
15	CSC-205		Software Engineering	Core	3 (3-0)
16	MTH-103	MTH-101	Linear Algebra	Maths	3 (3-0)
					19(15-12)
			Semester 4		, ,
17	CSC-211	CSC-111	Computer Organization & Assembly Language	Core	3 (2-3)
18			Domain Elective 1	Domain Elective	3 (2-3)
19			Domain Elective 2	Domain Elective	3 (2-3)
20	PHY-201		Natural Science (Applied Physics)	GER	3 (2-3)
21	ENG-201	ENG-102	Expository Writing	GER	3 (3-0)
22	IS-201		Islamic Studies/Ethics	GER	2 (2-0)
					17(13-12)
			Semester 5		
23	CSC-301		Operating Systems	Core	3 (2-3)
24	CSC-302		Domain Core 1 (Theory of Automata)	Domain Core	3 (3-0)
25	CSC-303	CSC-103	Domain Core 2 (Advance Database Management Systems)	Domain Core	3 (2-3)
26			Domain Elective 3	Domain Elective	3 (2-3)
27			Domain Elective 4	Domain Elective	3 (2-3)
28	SSH-301		ocial Science (Introduction to Management) GER		2 (2-0)
29	CSC-398		nternship Core		3 (0-3)
					17(13-12)
			Semester 6		
30	CSC-311	CSC-211	Domain Core 3 (Computer Architecture)	Domain Core	3 (2-3)
31	CSC-312	CSC-302	Domain Core 4 (Compiler Construction)	Domain Core	3 (2-3)
32	CSC-313		Domain Core 5 (HCI & Computer Graphics)	Domain Core	3 (2-3)
33	CSC-314	CSC-301	Domain Core 6 (Parallel & Distributed Computing)	Domain Core	3 (2-3)
34			Domain Elective 5	Domain Elective	3 (2-3)
35			Domain Elective 6	Domain Elective	3 (2-3)
					18(12-18)
			Semester 7		
36	CSC-498		Final Year Project – I	Core	2 (0-6)
37	CSC-401	CSC-201	Analysis of Algorithms	Core	3 (3-0)
38			Domain Elective 7	Domain Elective	3 (2-3)
39	MGT-351		Elective Supporting Course (Introduction to Marketing)	SS	3 (3-0)
40	ENG-401	ENG-201	Technical & Business Writing ENG		3 (3-0)
41	SSH-401		Entrepreneurship	GER	2 (2-0)
					16(13-9)
			Semester 8		
42	CSC-499	CSC-498	Final Year Project - II	Core	4 (0-12)
43	SSH-402		Arts & Humanities (Professional Practices)	GER	2 (2-0)
44	SSH-403		Civics and Community Engagement	GER	2 (2-0)
45	SSH-404		Ideology and Constitution of Pakistan	GER	2 (2-0)
1 -					10(6-12)

For All BS Programs Pre-Calculus Deficiency (for Pre-Medical Students) & Translation of Quran Courses and their Codes

Mathematics Deficiency as per NCEAC & Punjab Govt Requirement of Translation of Quran					
MTH-001	Pre-Calculus I	3(3-0)			
MTH-002	Pre-Calculus II	3(3-0)			
TOQ-101	Translation of Quran I	1(1-0)			
TOQ-102	Translation of Quran II	1(1-0)			
TOQ-201	Translation of Quran III	1(1-0)			
TOQ-301	Translation of Quran IV	1(1-0)			
CSC-398	Internship	3(0-3)			

Standard 2-1: The curriculum must be consistent and support the program's documented objectives.

The table given below shows the list of courses those are consistent with the program objectives.

Table 5: Courses versus Objectives

Comman		Objectives						
Course	1	2	3	4	5	6		
CS-582	+++	+++	+++	+++	+++	+++		
CS-423	++	+	+	+++	++	++		
SSH-302	+++	+++	++	+++	++	+++		
MGT-411	++	++	+++	++	++	+++		
CS-685	+++	++	++	++	+++	++		
CS-542	++	++	+++	+++	++	+++		
CS-576	+++	+++	++	+++	+++	+++		
ENG-315	++	++	++	++	+++	++		
CS-692	++	++	++	++	+++	+++		
CS-632	+++	++	+	++	++	+++		
CS-301	++	+++	++	+++	+++	+++		
MTH-310	+	++	++	+++	++	+		
CS-335	+++	+++	+++	++	++	++		
CS-301	+++	++	++	+++	++	+++		
CS-335	++	++	+	++	++	++		
CS-430	+	++	++	++	++	++		
CS-536	++	++	++	++	++	+++		
MTH-415	+++	++	+	++	+++	+		
CS-452	++	++	+	+++	++	++		
MGT-322	+++	+	++	++	+++	++		
CS-530	+++	+	++	+	++	++		
CS-685	++	++	+	+++	+++	+++		
CS-636	+++	++	++	++	+++	+++		
CS-632	++	+	+++	++	++	+++		
STT-500	++	++	+	++	++	++		
CS-692	+	++	++	+	+	++		

+ = Moderately Satisfactory, ++ = Satisfactory, +++ = Highly Satisfactory

Standard 2-2: Theoretical backgrounds, problem analysis and solution design must be stressed within the program's core material.

The Table below shows the categorization of courses which plays vital role in building theoretical background, problem analysis and designing a solution.

Table 4.5: Standard 2-2 Requirement

Table 4.5: Standard 2-2 Requirement				
Element	Course Code	Course Title		
	ENG-305	English Comprehension		
	IS-302	Islamic Studies		
	SSH-302	Pakistan Studies		
	ELE-401	Basic Electronics		
	MGT-421	Islamic Studies II		
	CS-452	Software Engineering I		
	ENG-325	Communication Skills		
Theoretical	MGT-512	Introduction to Organizational Behaviour		
Background	CS-577	Computer Communication and Networks		
Dackground	CS-684	Network management and security		
	CS-301	Introduction to Computing		
	MGT-316	Introduction to Marketing		
	ENG-315	Technical and Business Writing		
	SSH-303	Professional Ethics		
	PSY-600	Psychology		
	CS-582	Operating System Concepts		
	CS-335	Discrete Structures		
	MTH-310	Calculus and Analytical Geometry		
	MTH-315	Multivariable Calculus		
	MGT-421	Financial Accounting		
	CS-430	Digital Logic Design		
Problem	MTH-415	Differential Equations		
Analysis	STT-500	Statistics and Probability		
1 Hilling SIS	MTH-435	Linear Algebra		
	CS-542	Analysis of Algorithms		
	CS-552	Software Engineering II		
	CS-572	Numerical Analysis		
	CS-532	Computer Architecture		
	MGT-520	Human Resource Management		
	CS-323	Programming Fundamentals		
	CS-536	Theory of Automata and Formal Languages		
Solution	CS-632	Artificial Intelligence		
Design	CS-423	Object Oriented Programming		
	CS-400	Database Systems		
	CS-443	Data Structures and Algorithms		

CS-565	Web Design and Development
CS-530	Computer organization and Assembly language
CS-432	Modern Programming Languages
CS-682	System Programming
CS-692	Visual Programming
CS-525	Multimedia Technologies
CS-600	Distributed Database Systems
CS-685	Human Computer Interaction
CS-575	Computer Graphics

Standard 2-3: The curriculum must satisfy the core requirement for the program, as specified by the respective accreditation body.

The curriculum is designed according to the requirements of the Accreditation Council of Pakistan and is duly approved by the Academic Council of PMAS-AAUR.

Standard 2-4: The curriculum satisfies the major requirement laid down by HEC.

The curriculum satisfies the major requirement laid down by HEC. All courses of BSCS degree are designed according to the defined standard of HEC and curriculum is duly approved by the academic council of the university.

Standard 2-5: The curriculum satisfies the general education, arts and Professional and other discipline requirement as laid by HEC

The course distribution in the curriculum of BSCS is according to the requirements of HEC and UAAR. The important courses that indicate this component are included in the curriculum and are being carried out in all the current disciplines successfully and are being taught by technically qualified teachers

Standard 2-6: Information technology component of the curriculum must be integrated throughout the program.

The degree of BSCS is a computer science professional degree. The extensive programming and application courses are included in the degree. It includes major computer science, software engineering and information technology courses.

Table 4.5(a): Credit Hour Division

Category	Credit Hours	Cumulative Credit Hours
Computing-Core Courses	39	
Major (Computer Sciences/Software Engineering/Information Technology)-Core Courses	18	78
Major (Computer Sciences/Software Engineering/Information Technology) Based –Electives	21	
Supporting Sciences	21	
General Electives	19	58
University Electives	18	
Total Credit Hours		136

Standard 2-7: Oral and Written communication skills of the student must be developed and applied in the program.

To enhance the communication skills of students following General education courses are included as per HEC criterion.

Table 4.5(b): General Education Courses

Course Code	Course Title	Credit Hours
ENG-305	English Comprehension	3(3-0)
ENG-315	Technical Business Writing	3(3-0)
ENG-325	Communication Skills	3(3-0)
SSH-303	Professional Ethics	3(3-0)
IS-302	Islamic Studies	2(2-0)
SSH-302	Pakistan Studies	2(2-0)
CS-301	Introduction to Computing	3(2-2)

CRITERION 3: LABORATORIES AND COMPUTING FACILITIES

Table 6: Laboratory Facility (umer IT)

Size of campus		23 Kanals					
(in kanals)							
Covered area	13.5 Kanals (Including 4 Kanal Covered Parking)						
(sq ft)	Open Area: 9.5 Kanals (for student activities)						
Sizes of lecture	Class Room Seminar hall						
rooms	22 of different sizes 50 x 50 ft						
	(Avg. 540 sqft)						
Instructiona	Multimedia:19	Sound system:3					
l facilities	White Board:33						
provided in							
lecture rooms							
General	Approximatel	y 10:00 hours per day Total PCS in					
computing lab		labs:250					
facilities: total	Lab open 8:00am-8:00pm						
number of							
PCs							
and lab hour							
Nature	Internet Bandwidth PTCL – 35 MB						
and level	Nayatel – 40 MB (Fiber Optic)						
of							
networkin							
g							
Specialized	I	inux lab Teaching lab					
lab facilities		Project lab					
and hours of	The labs are open alm	nost the whole day from 8:00 am to 8:00pm					
their							
availability							
Average		3 to 4 years					
lifetime of							
a PC in							
computing labs							

Library	Area	Automated	Total	Total	journals	IEEE	ACM
information			books	Computer Books			
	3000 sft	Automated	10,0000	1200	peer- reviewed journals and	to digit	has an access al library
					magazines.	service extend	s being ed by
						HEC	

Assessment of BSCS Curriculum

The assessment of the BSCS degree program is shown in tabulated form which indicated that contribution of each course for the program outcomes.

- It contains the introductory computing course, middle level course and advanced computing courses.
- It contains mathematical courses which help in designing the mathematical modeling and developing numerical solutions.
- It contains the management and business courses to give students a flavor of business infrastructures.

Standard-3.1: Laboratory manuals/documentation/instructions for experiments must be available and accessible to faculty and students.

Laboratory manuals for the all practical subjects are prepared and distributed among students. Manuals are present at the institute in the soft form.

Standard-3.2: There must be support personnel for instruction and maintaining the laboratories.

There are enough number of people to support students and maintaining the laboratories. Detail is given below:

Computer Lab support staff: 6

Multimedia Projector Count: 19

E-learning Facility: Video Conferencing, Digital

Library Total Lab Computers: 250

Total No. of Labs: 5

Standard-3.3: The University computing infrastructure and facilities must be adequate to support program's objectives.

The BIMS provides enough computing facilities for students in the Lab. The total numbers of computers available for students use in multiple labs are 250 in 5 labs.

CRITERION 4: STUDENT SUPPORT AND ADVISING

Our Institute organizes support programs for students and provide information regarding admission, scholarship schemes etc. Institute in its own capacity arranges orientation and guided tours of the institute. Director Students Affairs is also there and arranges various cultural activities and solves the students' problems.

Standard-4.1: Courses must be offered with sufficient frequency and number for students to complete the program in a timely manner.

Courses are taught as per HEC criteria.

- At undergraduate level subjects/courses are offered as per the scheme of study provided by UIIT, approved by Academic Council.
- Elective courses are offered as per policy of PMAS-AAUR.

Standard-4.2: Courses in the major area of study must be structured to ensure effective interaction between students, faculty and teaching assistants.

Both theoretical and practical aspects are focused to prepare the students for future challenges. Theoretical problems are explained and assignments are also given to the students whereas, practicals are carried out in the labs. Study tours to various research organizations and software houses are also organized to keep them updated on the latest developments in the area and to stimulate them for discussion through teacher/student interaction.

- BS (CS) courses are well designed and updated in the institute board of studies meeting.
- At start of semester, the faculty members of institutes interact frequently among themselves and with students. Institute always encourages the interaction between each section of BSCS classes.

Standard-4.3: Guidance on how to complete the program must be available to all students and access to qualified advising must be available to make course decisions and career choices.

Several steps have been taken to provide guidance to students by different ways such as:

- Students are informed about the program requirement through the Director's office.
- Through the personal communication of the teachers with the students.
- Meetings are organized by the director of the institute for counseling for the students.
 In addition, students can also contact with the relevant teachers whenever they face any problem.
- Students can meet director of the institute whenever they feel need to meet on any serious issue. Realizing the need for exploring job opportunities for the university graduates, Students Placement Office has been established.

Table 7: Student to Teacher Ratio at BIMS

2020-21	2021-22	2022-23	2023-24
17:1	15:1	14:1	14:1

CRITERION 5: PROCESS CONTROL

It includes students' admission, registration and faculty recruitment activities, which are dealt by various statutory bodies and the university administration.

Standard-5.1: The process by which students are admitted to the program must be based on quantitative and qualitative criteria and clearly documented. This process must be periodically evaluated to ensure that it is meeting its objectives.

- The process of admission is well established and is followed as per the rules and criteria set by PMAS-AAUR. For this purpose, an advertisement is published in the national newspapers.
- Admission criteria for BS(CS) are Intermediate Certificate, with Mathematics (Pre-Eng. / ICS / DAE) or A-level or an equivalent certificate from any recognized Institute with at least 50% marks.
- Admission criteria are revised every year before the announcement of admission.

Standard-5.2: The process by which students are registered in the program and monitoring of students' progress to ensure timely completion of the program must be documented. This process must be periodically evaluated to ensure that it is meeting its objectives.

- The student name, after completion of the admission process, is forwarded to the Registrar's
 office of PMAS-AAUR for proper registration in the specific program and the registration
 number is issued to the student.
- Registration is done in one time for each degree but evaluation is done through the
 result of each semester. Only those students, who fulfill the criteria of the University,
 are promoted to the next semester.
- Standard-5.3: The process of recruiting and retaining highly qualified faculty members must be in place and clearly documented. Also processes and procedures for faculty evaluation, promotion must be consistent with institution mission statement. These processes must be periodically evaluated to ensure that it is meeting with its objectives.
- The recruitment policy for the faculty followed by the BIMS is the same as recommended by the PMAS-AAUR. Induction of all posts is done as per rules.
- Vacancies and newly created positions are advertised in the national newspapers, applications are received by the Human Resource office, scrutinized by the scrutiny committee, and call letters are issued to the shortlisted candidates on the basis of experience, qualification, publications and other qualities/activities as determined by the University.
- The candidates are interviewed by the University Selection Board, and suitable candidates are selected.
- Selection of candidates is approved by the Board of Investors for issuing orders to join within a specified period.
- Induction of new candidates depends upon the number of approved vacancies.
- The standard sets by HEC/PMAS-AAUR are followed.

Standard 5-4: The process and procedures used to ensure that teaching and delivery of course material to the students emphasizes active learning and that course learning outcomes are met. The process must be periodically evaluated to ensure that it is meeting its objectives.

To provide high quality teaching, the parent university PMAS-AAUR periodically revises the curriculum in views of field requirements, innovations and new technology.

- With the emergence of new fields, new courses are introduced and included in the curriculum.
- Students usually buy cheap Asian editions of technology books. These are also available in the University library, where documentation, copying and internet facilities are available.
- Notes are also prepared by the teachers and given to the students.
- Most of the lectures are supplemented by overheads, slides and pictures.
- All efforts are made that the courses and knowledge imparted meet the objectives and outcome. The progress is regularly reviewed at the staff meetings.

Standard 5-5: The process that ensures that graduates have completed the requirements of the program must be based on standards, effective and clearly documented procedures. This process must be periodically evaluated to ensure that it is meeting its objectives.

The controller of examinations PMAS-AAUR announces the date regarding commencement of examination. After each semester, the controller's office notifies results of the students. The evaluation procedure consists of quizzes, mid and final examinations, practical, assignments, reports, oral and technical presentations. For BSCS, the minimum pass marks for each course is 40%.

CRITERION 6: FACULTY

Standard 6-1: There must be enough full time faculties who are committed to the program to provide adequate coverage of the program areas/courses with continuity and stability. The interests and qualifications of all faculty members must be sufficient to teach all courses, plan, modify and update courses and curricula. All faculty members must have a level of competence that would normally be obtained through graduate work in the discipline.

In the following table we have mentioned the overall available faculty. The entire faculty is either MS or PhD.

Table 4.6: Courses and Faculty Detail

Program area of specialization	Courses in the area and average number of sections per year	Number of faculty members in each area	Number of faculty with PhD degree
Area1.	BSCS Artificial Intelligence		
Area2.	BSCS General Computing		
Total	45 Courses, 8 Sections	21	9

Below is the detail of faculty members at BIMS for the BSCS program. Full-time Faculty Information.

Table 8: Faculty Distribution by Faculty Specialization

Full time	Number of	Number of faculty	Total Number of lecturers for		
faculty	faculty members	with MS	BSCS		
	with Phd				
30	9	21	30		

2 Dr. Javid U 3 Dr. M. Shal 4 Dr. M. Juna 5 Dr. Sara Kh 6 Dr. Bilal Sa 7 Dr. Ghulam Laghari 8 Mr. Shahid 9 Dr. Fida Kh 10 Noman Al I 11 Mr. Haroon 12 Mr. Khalid Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A		Position	Qualification	Specialization		
3 Dr. M. Shah 4 Dr. M. Juna 5 Dr. Sara Kh 6 Dr. Bilal Sar 7 Dr. Ghulam Laghari 8 Mr. Shahid 9 Dr. Fida Kh 10 Noman Al I 11 Mr. Haroon 12 Mr. Khalid Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	amil Ghaffar	Assistant Professor	Ph D	Artificial Intelligence		
4 Dr. M. Juna 5 Dr. Sara Kh 6 Dr. Bilal Sac 7 Dr. Ghulam Laghari 8 Mr. Shahid 9 Dr. Fida Kh 10 Noman Al I 11 Mr. Haroon 12 Mr. Khalid I Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N		Assistant Professor	Ph.D	Computer Sciences		
5 Dr. Sara Kh 6 Dr. Bilal Sac 7 Dr. Ghulam Laghari 8 Mr. Shahid 9 Dr. Fida Kh 10 Noman Al I 11 Mr. Haroon 12 Mr. Khalid Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	ahid	Assistant Professor	Ph.D	Computer Science		
7 Dr. Ghulam Laghari 8 Mr. Shahid 9 Dr. Fida Kh 10 Noman Al I 11 Mr. Haroon 12 Mr. Khalid I Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	naid Umer		Ph. D	Artificial Intelligence.		
7 Dr. Ghulam Laghari 8 Mr. Shahid 9 Dr. Fida Kh 10 Noman Al l 11 Mr. Haroon 12 Mr. Khalid Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	Khalid		Ph. D	Computer Science		
Laghari Mr. Shahid Dr. Fida Kh Dr. Fida Kh Mr. Haroon Mr. Haroon Mr. Khalid Chohan Ms. Sehrish Ms. Fakhar Mr. Masim Mr. Muham Luqman Ms. Iqra Ya Mr. Mifzal Khan Mr. Hassan	Saeed		Ph D	Computer Science		
8 Mr. Shahid 9 Dr. Fida Kh 10 Noman Al I 11 Mr. Haroon 12 Mr. Khalid I Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	m Fareed		Ph D	Computer Science		
10 Noman Al I 11 Mr. Haroon 12 Mr. Khalid I Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	id Rathode		Ph D	Networking		
11 Mr. Haroon 12 Mr. Khalid Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	Khan	Professor	PhD	Electrical Engineering		
12 Mr. Khalid Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	1 Hassan	Lecturer	MS	Computer Science		
Chohan 13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	on ur Rasheed	Lecturer	MS	Computer Science		
13 Ms. Sehrish 14 Ms. Fakhar 15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	d Hussain	Lecturer	MS	Computer Science		
15 Mr. Masim 16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	sh Khalil	Lecturer	MS	Computer Science		
16 Mr. Muham Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	ar un Nisa	Lecturer	MS	Computer Science		
Luqman 17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	n Ali	Lecturer	MS	Computer Science		
17 Ms. Iqra Ya 18 Mr. Mifzal Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	nmad	Lecturer	MS	Artificial Intelligence		
Khan 19 Mr. Hassan 20 Mr. Sohail A 21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	Yasmin	Lecturer	MS	Computer Science		
 Mr. Hassan Mr. Sohail A Mr. Mehdi A Ms Maryam Ms Farah N 	al Ahmad	Lecturer	MS	Computer Science		
21 Mr. Mehdi A 22 Ms Maryam 23 Ms Farah N	an Jamil	Lecturer	MS	Computer Science		
22 Ms Maryam 23 Ms Farah N	l Ameen	Lecturer	MS	Computer Science		
23 Ms Farah N	i Abbas Shah	Lecturer	MS	Computer Science		
	ım Bibi	Lecturer	MS	Computer Science		
24 Ms. Munee	Naz	Lecturer	MS	Computer Science		
	eeba Islam	Lecturer	MS	Computer Science		
25 Ms. Mufzila	ila Raheem	Lecturer	MS	Computer Science		

26	Mr. Syed Umair Kazmi	Lecturer	MS	Social Academic Networks
27	Mr. Ibrar Hussain	Lecturer	MS	
28	Ms Sara Sultana	Lecturer	MS	Computer Science
29	Mr. Shahzeb Iqbal	Lecturer	MS	Computer Science
30	Mr. Shujaat Hussain	Lecturer	MS	Artificial Intelligence
30	Mr.Abdul Majid	Lecturer	M. Phil	Economics

Standard 6-2: All faculty members must remain current in the discipline and sufficient time must be provided for scholarly activities and professional development. Also, effective programs for faculty development must be in place.

- The institute provides them study leave with pay and sometime allowance where possible for the institute.
- Internet is available to all the faculty members. The faculties also have access to the digital library and limited access to some well-known journals.
- The institute provides support for attending conferences. There are certain policy matters which a faculty members need to follow in order to get positive feedback from the institute for travel grants for the conference.
- The institute provides a certain amount of innovative research incentives to the faculty members.

Standard 6-3: All faculty members should be motivated and have job satisfaction to excel in their profession.

Most of the faculty members are satisfied with the mix of research and teaching method. The faculty members are satisfied with the support they are getting from the administration regarding the research and teaching. The faculty members are satisfied with overall environment of the institute. Most of the faculty members are satisfied that the institution is utilizing their capabilities in the good way. The faculty should be encouraged to continue excelling through the career. A table of Results of faculty Survey is mentioned below.

Table 6: Result of Faculty Survey

S.No	Parameters	1		1			ಡ					1			
S.No	Parameters	Dr. M Asif Khan	Dr. Javaid Ullah	Dr. M Shahid	Dr. Rehan Masood	Mr. Noman Al Hassan	Mr. Seemab Janjua	Mr. Iftilkhar	Mr. Fazal Rehman Shamil	Ms. Sehrish Khalil	Ms. Qurat- Ul-Ain Alam	Ms. Ayesha Siddique	Mr. Sohail Ahmed	Ms. Saira Sultana	Ms. Tayyana Kalsoom
1	Your mix of research, teaching and community service	A	A	В	A	A	A	A	A	В	A	A	В	A	A
2	The intellectual stimulations of your work.	В	В	В	В	В	В	В	В	В	В	В	A	В	В
3	Type of teaching /research you	A	A	A	A	A	A	A	A	A	A	A	В	A	A
4	Your interaction with students.	В	В	A	В	В	В	В	В	В	В	В	A	В	В
5	Cooperation you receive form colleagues.	A	A	A	A	A		A	A	A	A	A	В	A	A
6	The mentoring g available to you.	В	В	В	В	В		В	В	В	В	В	В	В	В
7	Administrative support from the department.	A	A	В	A	A	В	A	A	A	A	A	A	A	A
8	Providing clarity about the faculty promotion process.	В	В	В	В	В	В	В	В	A	В	В	A	В	В
9	Your prospects for advancement and progress through ranks.	A	A	В	A	A	В	A	A	В	A	A	В	A	A
10	Salary an d compensatio n package.	В	В	A	В	В	В	В	В	A	В	В	Е	В	В
11	Job security and stability at the department.	A	A	В	A	A	В	A 62	В	A	A	A	A	A	A

CRITERION 7: INSTITUTIONAL FACILITIES

According to this criterion, the institution have the infrastructure to support new trends in learning such as e-learning including digital publications, journals etc.

The library possesses an up-to-date technical collection relevant to the program with professional staff. Sufficient technical collection of books. Recommended books and relevant journals of the programs are available to the students and Faculty.

Standard- 7.1: The institution must have the infrastructure to support new trends in learning such as e-learning.

The university faculty has access to e-library and internet which is very supportive of the faculty.

Standard- 7.2: The library must possess an up-to-date technical collection relevant to the program and must be adequately staffed with professional personnel.

The University Central Library has sufficient number of books, journals and periodicals. It's a valuable library in term of space and facilities with proper catalogue systems. It meets the standard of a University Library.

Standard-7.3: classrooms must be adequately equipped and offices must be adequate to enable faculty to carry out their responsibilities.

All class rooms and offices are equipped with latest equipment's comfortable to work at all time.

CRITERION 8: INSTITUTIONAL SUPPORT

The institute administration has been struggling hard to strengthen all the departments, upgrade them and establish new faculties. The institute is also trying to attract highly qualified faculty.

Standard 8-1: There must be sufficient support and financial resources to attract and retain high quality faculty and provide the means for them to maintain competence as teachers and scholars.

The institute currently has limited resources for the research. However the following funds are provided as financial resources to attract and retain high qualified faculty.

Endowment Fund	50 Million
Tangible Assets	43 Million
Working Capital	61 Million
Total Assets	154 Million

Standard 8-2: There must be an adequate number of high-quality graduate students, research assistants and Ph.D. students.

Below is the list of students in the BSCS program over past ten years. BIMS is not accredited for a PhD Degree.

Table 8: Number of students enrolled in BSCS in 2019-2024

Year	BSCS
2021	245
2022	1016
2023	1383
2024	718

Standard- 8.3: Financial resources must be provided to acquire and maintain library holdings, laboratories and computing facilities.

Following is the detail of the institution's budget for maintenance, library holdings, laboratories, computing facilities and faculty development.

Table 9: Financial Information about the institution and the Program

LIB Holdings	5 Million
Laboratories +Computer Hardware	10 Million
Computing (Software)	4 Million
T-4-1 A4-	10 M;H;
Total Assets	19 Million

SUMMARY AND CONCLUSION

The Self-Assessment Report (SAR) of the Barani Institute of Management Sciences (BIMS), an affiliation with Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi for Degree Program Bachelor in Computer Science (BSCS) provides an evaluation of the performance against stated criteria. This report begins with an introduction of the institute followed by a detailed discussion of the BSCS degree program including its importance, the main features, objective, outcomes and measures to assess those objectives.

Bachelor of Science of Computer Science (BSCS) is a four year degree program, during which a variety of relevant computer science courses are offered to the students. Visiting faculty are also hired to work in collaboration with the full-time faculty members, to balance the faculty academic load and ensure an sufficient justification and fulfillment of the teaching/training requirements. In order to maintain and promote an outstanding quality of learning, a continued assessment of the teaching and courses is conduced, throughout a semester, in accordance with the rules and regulations of the HEC.

The core of the curriculum designed for BSCS program is according to the market and international standards of computer education guided by the requirements set by the Higher Education Commission of Pakistan. The curriculum includes an adequate proportion of mathematical, statistical and management courses to provide a complete skill package for effective professional conduct. It is further supplemented by the inclusion of a number of general courses intended to sharpen the written and oral communication proficiency of the students. Moreover, the faculty members and students are encouraged to arrange workshops and seminars as a part of their academic and practical work to further enhance their professional abilities.

BIMS supports the new trends towards education such as e-learning including digital publications, journals, etc. The faculty and students have been provided with a full-time access to the e-library and internet through local area network, so that they have a ready access to many well-known journals relevant to their respective research areas.

ANNEXURES

ANNEXURE I: ALUMNI SURVEY

The results of the Alumni survey in tabular form are given below:

			Very	G 1	ъ.	
	T7 1 1	Excellent	Good	Good	Fair	Poor
I	Knowledge					
1	Math, Science, Humanities and professional discipline, (if applicable)	33%	50%	9%	8%	0%
2	Problem formulation and solving skills	56%	23%	11%	8%	2%
3	Collecting and analyzing appropriate data	39%	43%	7%	8%	3%
4	Ability to link theory to practice	46%	38%	3%	5%	8%
5	Ability to design a system component or process	40%	30%	15%	12%	3%
6	IT knowledge	51%	37%	8%	2%	2%
II	Communication Skills	Communication Skills				
1	Oral communication	50%	26%	15%	4%	5%
2	Report writing	55%	31%	8%	4%	2%
3	Presentation skills	27%	35%	13%	18%	7%
Ш	Interpersonal Skills		ı			
1	Ability to work in teams.	47%	10%	28%	8%	7%

	Ability to work in arduous/Challenging	2504	450	100/	204	
2	situation	37%	45%	10%	3%	5%
3	Independent thinking	50%	29%	14%	5%	2%
4	Appreciation of ethical Values	28%	37%	22%	8%	5%
IV	Management/Leadership Ski	ills				
1	Resource and Time management skills	35%	48%	3%	10%	4%
2	Judgment	54%	24%	12%	5%	5%
3	Discipline	73%	10%	8%	5%	4%
v	General Comments					
VI	Career Opportunities	Career Opportunities				
VII	Department Status					
1	Infrastructure	31%	43%	12%	12%	2%
2	Faculty	47%	30%	12%	8%	3%
3	Repute at national level	61%	35%	4%	0%	0%
4	Repute at International Level	14%	47%	10%	6%	23%

ANNEXURE II: GRADUATING STUDENTS SURVEY

The results of Graduating Student Survey in table form are given below: (any update?)

		Very Satisfied	Satisfied	Uncertain	Dissatisfied	Very Dissatisfied
1	The work in the program is too heavy and induces a lot of pressure.	59%	30%	2%	4%	4%
2	The program is effective in enhancing team-work abilities.	54%	35%	0%	7%	4%
3	The program administration is effective in supportive learning	37%	35%	15%	4%	9%
4	The program is effective in developing analytical and problem solving skills.	45%	37%	9%	4%	4%
5	The program is effective in developing independent thinking.	54%	20%	14%	4%	8%
6	The program is effective in developing written communication skills.	50%	35%	11%	0%	4%
7	The program is effective in developing planning abilities.	45%	35%	4%	9%	7%
8	The objectives of the program have been fully achieved.	45%	39%	9%	2%	4%
9	Whether the contents of the curriculum are advanced and meet program objectives.	41%	35%	13%	4%	7%
10	The faculty was able to meet the program objectives.	45%	30%	9%	11 %	4%
11	The environment was	32%	30%	20%	4%	13%

	conducive for learning					
12	Whether the infrastructure of the department was good	32%	15%	35%	13 %	4%
13	Whether the program was comprised of Co-curricular and extra-curricular activities	24%	17%	33%	17 %	9%
14	Whether scholarships/grants were available to students in case of hardship.	67%	22%	9 %	2%	0%

ANNEXURE III: EMPLOYER SURVEY

The results of Employer Survey in tabular form are given below: (any update required?)

		Excellent	Very Good	Good	Fair	Poor
I	Knowledge					
1	Math, Science, Humanities and professional discipline, (if applicable)	55%	24%	15%	3%	3%
2	Problem formulation and solving skills	50%	31%	6%	9%	3%
3	Collecting and analyzing appropriate Data	49%	26%	17%	3%	6%
4	Ability to link theory to practice	37%	34%	17%	12%	0%
5	Ability to design a system component or Process	45%	32%	9%	9%	5%
6	Computer knowledge	68%	9%	5%	9%	9%
II	Communication Skills					
1	Oral communication	36%	30%	18%	12%	3%
2	Report writing	39%	26%	17%	4%	13%
3	Presentation skills	39%	27%	17%	5%	12%
II I	Interpersonal Skills					
1	Ability to work in teams.	49%	17%	31%	3%	0%
2	Leadership	32%	32%	21%	0%	14%
3	Independent thinking	37%	53%	11%	0%	0%
4	Motivation	42%	31%	12%	8%	8%

5	Reliability	42%	32%	0%	5%	21%
6	Appreciation of ethical values	48%	13%	16%	10%	13%
IV	Work Skills					
1	Time management skills	38%	50%	8%	4%	0%
2	Judgment	42%	27%	15%	12%	3%
3	Discipline	32%	44%	20%	4%	0%

Performa 9: FACULTY RESUME

Name:	Dr. Muzzamil Ghaffar
Personal:	Marital Status: Married Nationality: Pakistani muzzamilghaffar@gmail.com 0332-5049629
Experience:	13 years
Honors and Awards	First place in National Robotics Design Competition, MS and PhD fellowship. HEC IPFP fellow 2024.
Memberships	Pakistan Engineering Council.
Graduate Students	YES
Postdocs	
Undergraduate Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	Artificial Intelligence, Machine learning, Energy efficiency.
Publications	6
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	Workshops, Seminars

Name:	Dr. Javid Ullah
Personal:	Marital Status: Married Nationality:
	Pakistani
	Email: javidullah@bims.edu.pk
	Phone: +92-51-4853701
	10
Experience:	12 year
Honors and Awards	Merit Based Scholarship
Memberships	Admission Committee, Department of Computer Sciences. Quality Enhancement Cell (QEC) team member, Department of Computer Sciences
Graduate Students	Yes
Postdocs	
Undergraduate Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of Research Interest	Artificial Intelligence
Publications	5
Research Grants and	No
Contracts	
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No

Name:	Dr. Muhammad Junaid Umer
Personal:	Department of Computer Sciences Barani Institute of Management Sciences Email: junaid14841@gmail.com Contact: 0314-5226453
Experience:	4 years
Honors and Awards	Scholarship in PhD.
Memberships	
Graduate Students	YES
Postdocs	
Undergraduate Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of Research Interest	 Computer Sciences Deep learning AI ML
Publications	8
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	Workshops, Seminars

Name:	Dr. M. Shahid
Personal:	Marital Status: Married
	Nationality: Pakistani
	Department of Computer Sciences.
	Barani Institute of Management Sciences
	shahid@bims.edu.pk
	051-4853702
Experience:	10 years
Honors and Awards	Nil
Memberships	Admission Committee ,Department of Computer Sciences QEC member, Department of Computer Sciences
Graduate Students	Nil
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	Computer Science
Publications	Nil
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	-

Name:	Dr. Sara Khalid
Personal:	Marital Status:Unmarried
	Nationality: Pakistani
	Email: mssaramalik@gmail.com
	Phone: 0334-5004776
Experience:	15 year
Honors and Awards	English Language Spoken B.ed
Memberships	
Graduate Students	Yes
Postdocs	
Undergraduate	
Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of	-
Research Interest	
Publications	3
Research Grants and Contracts	No
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No

Name:	Dr. Bilal Saeed	1
Personal:	Marital Status	: Married
	Nationality:	Pakistani
	Email:	e.bilalsaeed@gmail.com
	Phone:	+92-333-9079078
Experience:	11 year	
Honors and Awards		
Memberships	PTCL	
Graduate Students	Yes	
Postdocs		
Undergraduate		
Students		
Honor Students		
Service Activity	Teaching, Res	earch
Brief Statement of Research Interest	-	
Publications	7	
Research Grants and Contracts	No	
Other Research or Creative Accomplishments	No	
Selected Professional Presentations	No	

Name:	Dr. Ghulam Fareed Laghari
Personal:	Marital Status: Married
	Nationality: Pakistani
	Email: Ghulam.fareed.laghari@gmail.com
	Phone: +92-315-3042757
Experience:	08 year
Honors and Awards	National ICT R&D fund PHD Fellowship
Memberships	
Graduate Students	Yes
Postdocs	
Undergraduate	
Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of Research Interest	-
Publications	5
Research Grants and Contracts	No
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No

Name:	Dr. Shahid Rathode
Personal:	
	rathode@bims.edu.pk
	0333-5242453
Experience:	7 years
Honors and Awards	-
Memberships	Comprehensive Committee, Department of Computer Sciences
Graduate Students	YES
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	Networking
Publications	
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	Workshops, seminars

Name:	Dr. Fida Khan
Personal:	Marital Status: Married
	Nationality: Pakistani
	Email: fidamuhammadkhan 1@gmail.com
	Phone: +92-334-8910933
Experience:	19 year
_	
Honors and Awards	
Memberships	
Graduate Students	Yes
Postdocs	
Undergraduate	
Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of	-
Research Interest	
Publications	-
Research Grants	No
and Contracts	
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No

Name:	Noman Al Hassan
Personal:	Marital Status: Married
	Nationality: Pakistani
	Email: nomanalhassan@bims.edu.pk
	Phone: +92-333-5757399
Experience:	05 year
Honors and Awards	EADS (Euro Copter) internship
Memberships	IEEE
Graduate Students	Yes
Postdocs	
Undergraduate	
Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of	-
Research Interest	
Publications	-
Research Grants	No
and Contracts	
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No

Name:	Mr.Haroon Ur Rasheed
Personal:	Marital Status: Married Nationality: Pakistani haroon.matteen@gmail.com
Experience:	10 years
Honors and Awards	-
Memberships	Admissions Committee
Graduate Students	Yes
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	Computer Sciences
Publications	5
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	Workshops, seminars

Name:	Mr. Khalid Hussain Chohan
Personal:	chohankh@gmail.com
	Contact: +92300-5207499
	Contact. 192300 3207199
Experience:	20 years
Honors and Awards	A project of ERA Asian Development Bank
Memberships	
Graduate Students	Yes
Postdocs Undergraduate	
_	
Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of Research	
Interest	
Publications	5
	3
Research Grants and Contracts	-
Other Research or Creative	As described above
Accomplishments	
Selected Professional Presentations	-

Name:	Ms. Sahrish Khalil
Personal:	Department of Computer Sciences Barani Institute of Management Sciences sahrish123@yahoo.com
	0333-3332467
Experience:	07 years
Honors and Awards	Nil
Memberships	Admission Committee ,Department of Computer Sciences QEC member, Department of Computer Sciences
Graduate Students	Yes
Postdocs	
Undergraduate Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	Web Development
Publications	Nil
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	-

Name:	Ms.Fakhar Un Nisa
Personal:	Marital Status: Unmarried
	Nationality: Pakistani
	Email: fakharunnisa.95@gmail.com
	Phone: +92343-5056224
Experience:	03 years
Honors and Awards	-
Memberships	No
Graduate Students	Yes
Postdocs	
Undergraduate	
Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of Research	
Interest	
Publications	
Research Grants and	No
Contracts	
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No

Name:	Ms. Sohail Ameen
Personal:	Marital Status: Married
	Nationality: Pakistani
	Samin807@yahoo.com
	0336-0563705
Experience:	10 years
Honors and Awards	
Memberships	PAF
Graduate Students	Yes
Postdocs	
Undergraduate	
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research	Computer Sciences
Interest	
Publications	
1 doneations	
Research Grants and Contracts	-
Other Research or Creative	As described above
Accomplishments	
Selected	Workshops, seminars
Professional Presentations	
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Name:	Mr. Masim Ali
Personal:	Department of Computer Sciences Barani Institute of Management Sciences Masimali814@gmail.com Contact: +923049288370
Experience:	03 years
Honors and Awards	-
Memberships	 Admission Committee, Department of Computer Sciences
Graduate Students	Yes
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of Research Interest	Computer Sciences
Publications	-
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	-

Name:	Mr. Muhammad Luqman
Personal:	Department of Computer Sciences Barani Institute of Management Sciences
	Luqman.saim@gmail.com
	03226207404
Experience:	03 years
Honors and Awards	Nil
Memberships	
Graduate Students	Nil
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research	
Interest	
Publications	Nil
Research Grants and Contracts	-
Other Research or Creative	As described above
Accomplishments	
Selected Professional Presentations	-

Name:	Ms. Iqra Yasmin
Personal:	Marital Status:unmarried
	Nationality: Pakistani
	Email: eqramalik61@gmail.com
	Phone: +9234888327
Experience:	6 years
Honors and Awards	-
Memberships	No
Graduate Students Postdocs	Yes
Undergraduate Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of Research Interest	
Publications	-
Research Grants and	No
Contracts	
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No

Name:	Mr. Mifzal Ahmad Khan
Personal:	Department of Computer Sciences Barani Institute of Management Sciences
	Mfizal_pk@yahoo.com
	Contact: +923439904965
Experience:	13 years
Honors and Awards	Punctuality and Efficiency Award 2016-2018, Preston University Islamabad
Memberships	
Graduate Students	YES
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of Research Interest	
Interest	
Publications	
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	-

Name:	Mr. Hassan Jamil
Personal:	Department of Computer Sciences Barani Institute of Management Sciences (BIMS) hassanjamiltlg@gmail.com 0307-5338123
Experience:	3 years
Honors and Awards	Nil
Memberships	
Graduate Students Postdocs Undergraduate	Nil
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	Computer Sciences
Publications	Nil
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	-

Name:	Mr. Mahdi Abbas Shah
Personal:	Marital Status: Married
	Nationality: Pakistani
	Email: Mahdi.abbas1214@gmail.com
	Phone: +92314-4913418
Experience:	05 years
Honors and Awards	-
Memberships	No
Graduate Students Postdocs	Yes
Undergraduate Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of Research	
Interest	
Publications	-
Research Grants and	No
Contracts	
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No
Selected Professional Presentations	INU

Name:	Ms. Maryum Bibi
Personal:	Marital Status: Unmarried Nationality: Pakistani maryamnoor986@gmail.co m
Experience:	0300-9732879 02 years
Honors and Awards	-
Memberships	
Graduate Students	-
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	-
Publications	1
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	Workshops, seminars

Name:	Ms.Farha Naaz
Personal:	Department of Computer Sciences
	Barani Institute of Management Sciences
	, Rawalpindi, Pakistan.
	Farah.naz24@gmail.com
	Contact: +923032459786
Experience:	03 years
Honors and Awards	-
Memberships	
Graduate Students	YES
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of Research	
Interest	
incoor	
Publications	-
Research Grants and Contracts	-
Other Research or Creative	As described above
Accomplishments	
Selected Professional Presentations	-

Name:	Ms. Muneeba Islam
Personal:	Muneebaislam887@gmail.com
	0332-5918833
Experience:	2 years
Honors and Awards	Nil
Memberships	
Graduate	Nil
Students	
Postdocs	
Undergraduate	
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	
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D 111	270
Publications	Nil
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional	-
Presentations	

Name:	Ms. Mufzalla Rahim
Personal:	Marital Status: Married
	Nationality: Pakistani
	Email: mufzalla@bims.edu.pk
	Phone: +92-51-4853703
Experience:	06 years
Honors and Awards	-
Memberships	No
Graduate Students Postdocs	-
Undergraduate Students	
Honor Students	
Service Activity	Teaching, Research
Brief Statement of Research Interest	Limit theory in probability and large sample theory in statistics. Statistical Inference for Stochastic Processes
Publications	-
Research Grants and Contracts	No
Other Research or Creative Accomplishments	No
Selected Professional Presentations	No

Name:	Mr. Syed Umair Kazmi
Personal:	Department of Computer Sciences Barani Institute of Management Sciences
	<u>Umairkazmi56@gmail.com</u>
	Contact: +92308-8877040
Experience:	02 years
Honors and Awards	-
Memberships	
Graduate	YES
Students	
Postdocs	
Undergraduate	
Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of	
Research Interest	Computer Sciences and AI
Publications	-
Research Grants and Contracts	-
Other Research or Creative	As described above
Accomplishments	
Selected Professional Presentations	-

Name:	Ms.Ibrar Hussain
Personal:	Department of Computer Sciences Barani Institute of Management Sciences
	Ih147171 @gmail.com
	Contact: +92170746273
Experience:	02 years
Honors and Awards	-
Memberships	
Graduate Students	YES
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of Research Interest	
Publications	-
Research Grants and Contracts	-
Other Research or Creative	As described above
Accomplishments	
Selected Professional Presentations	-

Name:	Ms.Saira Sultana
Personal:	Department of Computer Sciences Barani Institute of Management Sciences saira@bims.edu.pk Contact: +92-51-4853703
Experience:	04 years
Honors and Awards	1-
Memberships	 Admission Committee, Department of Computer Sciences. Quality Enhancement Cell (QEC) team member, Department of Computer Sciences
Graduate Students Postdocs	YES
Undergraduate Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of Research Interest	Computer Sciences
Publications	-
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	-

Name:	Mr. Shahzeb Iqbal
Personal:	Department of Computer Sciences Barani Institute of Management Sciences Shahzebiqbal749@gmail.com Contact: +923164148644
Experience:	02 years
Honors and Awards	-
Memberships	
Graduate Students	YES
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching.
Brief Statement of Research Interest	
Publications	-
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	-

Name:	Mr.Shujat Hussain
Personal:	Marital Status:unmarried
	Nationality: Pakistani
	0315-5241412
Experience:	2 years
Honors and Awards	-
Memberships	Admission Committee.
Graduate Students	YES
Postdocs Undergraduate	
Students	
Honor Students	
Service Activity	Teaching
Brief Statement of Research Interest	Computer Sciences, AI
merest	
Publications	-
Research Grants and Contracts	-
Other Research or Creative Accomplishments	As described above
Selected Professional Presentations	Workshops, seminars