KHUSHALKHANKHATTAKUNIVERSITY, KARAK

BACHELOR OF SCIENCE
IN
COMPUTER SCIENCE

Self-Assessment Report
Fall 2022

SUBMITTED TO
QUALITY ENHANCEMENT CELL

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Executive Summary

The Department of Computer Science and Bio-Informatics was established in February 2013 and is pioneer department of the Khushal Khan Khattak University Karak. Five batches of BS program have been graduated up to Fall 2019. Currently, the department has almost 190 students of Computer Science discipline,07 full time faculty members (06 Ph.Ds and 02 MS) and others are on visiting basis. In order to enhance the quality of education, QEC Cell of the university has established a QEC team comprising of Dr. Muhammad Zubair, Mr. Ghani ur Rehman and Mr. Shad Muhammad. The QEC cell has carried out the assessment of the department against the standards and criterion provided by HEC Quality Enhancement Cell. This assessment is carried out for fall semester 2022.

Major Findings

1. The department QEC team has found that the program BS-Computer Science has satisfactory program objectives, program outcomes and the department has effective mechanism to assess the performance periodically.
2. It has been found that the BS-Computer Science curriculum has been designed according to HEC computer science curriculum and also been reviewed and approved by Board of Studies.
3. The curriculum also satisfies the standard requirement laid by HEC QEC assessment manual.
4. The department follows the rules and regulations for admission, enrolment, migration provided by the University.
5. The department has five PhD and remaining are MS qualified faculty members.
6. The qualification and specialization of faculty members is sufficient to teach all the courses, plan, modify and update the curricula.
7. The majority of faculty members are satisfied with the facilities provided by the University.
8. The institution facilities e.g. library, classrooms, offices, e-learning are also sufficient at this stage.

Detailed report of assessment by the QEC team regarding each standard is provided in following sections.

Section 1

Criterion 1

Program Mission, Objectives and Outcomes

Program Mission, Objectives and Outcomes

Standard 1-1:

The program must have documented measurable objectives that support Faculty / College and institution mission statements.

1.1 Institution Background

Khushal Khan Khattak University, Karak is a public sector University established on 13-6-2012, at Karak district, Khyber Pakhtunkhwa, Pakistan. In short span of time, this university got enormous achievements towards pursuing its mission. Currently fourteen departments are fully established and operational i.e. Management Sciences, Education & Research, Computer Science and Bio-Informatics, Communication & Media Studies, Library and Information Sciences, English Language and Literature, Botany, Zoology , Chemistry , Mathematics , Psychology and Geology respectively. Enrolled students are more than 1750. Khushal Khan Khattak University, Karak is fully equipped with technological tools and well qualified human resource from prestigious universities.

1.2 Institution Vision

"Competitive and conducive environment for research, discovery and learning"

1.3 Institution Mission

- To make university a place emanating knowledge, exhibiting liberty of thought and coveted seat of learning.
- To infuse spirit of excellence, creativity, innovation and scholarship into the life of the university.
- To offer competitive and nationally recognized opportunities for research, discovery, learning and engagement to a diverse population of students in a conducive environment.

1.4 QEC mission

"Enhancing quality to specified standards, catering education economy by developing quality culture"

1.5 Department vision

To foster excellent teaching, research, and service that develop highly skilled and educated citizens who can contribute to the uplifting of the well-being of the nation, and the international community.

1.6 Department mission

To produce leaders in the fields of computer science and information technology who can face the ever-changing requirements of modern digital economies with vision, courage and competence. The department strives to produce the manpower that will contribute towards the development of Pakistan to gain a competitive edge in the global village.

1.7 Program mission

To combine the theoretical and practical aspect of the computer technology and its uses in modern world. The program will equip the students with essential skills to the fundamental nature of computation, work placement and career edge in society.

1.8 Program Objectives

The BS (Computer Science) programme is designed to provide students in depth professional training in range of computer science multidisciplinary subjects. To equipped students with both theoretical back ground and hands on experience and to prepare the students for employment in computer related areas such as computer networking, software development and other IT fields.

1.8.1 Professional Development

To provide a solid foundation in Computer Science that supports an interdisciplinary education with liberal arts framework and prepares students for professions in computing sciences.

1.8.2 Analytical Thinking Skills

To help students to develop the abilities to predict, to analyze, think critically and to deduct consider alternatives to be creative as problem solvers.

1.8.3 Academic Skills

To foster an aptitude for continuous learning and provide a sound base to graduate to pursue higher education and research with confidence.

1.9 Strategic Plan

The BS (CS) program has certain strengths and weakness. The main focus is to build on our strength and removing the weakness. Maintaining the strengths will be core focus in future. Following the HEC curriculum strictly the Department of Computer Science and Bio-Informatics tends to include new both theoretical and practical courses which will help students in job placements. The students will be also encouraged for higher studies and research work in future. A new computer laboratory for the program is in pipeline along with PERN connectivity.

1.10 Strategic Objectives

The strategic objectives of the course are:

- Producing competent graduates in this program.
- Preparing students for job placement in local and international market.
- Preparing the students for higher studies in computer multidisciplinary areas like computer networking and mobile communication, computer graphics, database design and other fields of computer science.

- After completion of four years program the graduates will either go for job placement or pursue their career in the field of teaching and can go for further advanced research working computer science discipline.

Table 1.1 Program Objectives assessment

Objectives	How measured	When measured	Improvement identified	Improvement made
Professional Development	**Current students Survey**	Spring 2022	Focus will be made on project development	
Analytical Thinking Skills	**Current students Survey**	Spring 2022	Focus will be on practical subjects	
Academic Skills	**Current students Survey**	Spring 2022	Academic skills will be developed among students through the professional approach of faculty.	

1.5.4. Current Students identifications

- Focus should be made on practical subjects.
- The faculty should facilitate students with learning opportunities including consultation, coaching, mentoring, supervision and technical assistance.
- To improve the student development skills more labs should be established in the university.
- A state of the art lab should be established for the final year students in the department.
- More multimedia and teaching assistance equipment need to be provided to the faculty.
- Printers and photo copy machines should be installed in the department.
- Latest computer system with latest software should be installed.
- Wi-Fi availability must be insured.
- Mini project in every semester.

Standard 1-2:

The program must have documented outcomes for graduating students. It must be demonstrated that the outcomes support the program objectives and that graduating students are capable of performing these outcomes.

1.11Program outcomes

After completion of the BS Computer Science program, students will have the ability to;

I. Apply knowledge they obtained through out their BS Program in the real world life.
II. Analyze a problem and design appropriate computing solution.
III. Perform in team of multidisciplinary function to accomplish a common goal.
IV. Identify, rectify Computer Science related problems.
V. Demonstrate efficient oral and written communication skills.
VI. Achieve problem solving and decision making skills in computer science.

Table 1.2 Relationships between Program Objectives and Program Outcomes

Program Objectives	Program outcomes					
	1	2	3	4	5	6
Professional Development	√	√		√		
Analytical Thinking Skills		√	√	√		√
Academic Skills		√	√		√	

Standard 1-3:

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

The program is assessed on the basis of survey conducted from current students.

1.12Faculty evaluation by current students:

Table 1.3 Faculty Evaluation Report w.r.t Mean

Teacher Name	Mean
Mr. GhaniurRehman	4.2321
Mr. Shad Muhammad	4.3322
Dr. Muhammad InamulHaq	4.4007
Dr.Abdul Aziz	4.2100
Dr. Noor ulHaq	4.3442
Mr. Tariq Usman	4.2647
Dr. Muhammad Zubair	4.2686
Total	4.3766

The detail evaluation report is enclosed in Annexure I.

1.13Alumni

Alumni	Graduated Year	Status	Contact No.
Zahid Roman S/O Muhammad Rashid	Fall 2016	Working in Software House DRUPAK From May 2017	Zahidkhattak098@gmail.com

NomanYounas S/O Muhammad Younas	Fall 2017	Working in Software House DRUPAK From May 2017	Noman.younas@live.com
Miss Shabana	Fall 2016	SST BPS-16 Computer Science Teacher	
Ubaidullah S/O Nowsherwan	Fall 2016	Working Software House Latoon Technologies KalaKhan Plaza Shams Abad Rawalpindi	Ubaidullah336@gmail.com 03139909127

Standard 1-4:

The department must assess its overall performance periodically using quantifiable measures.

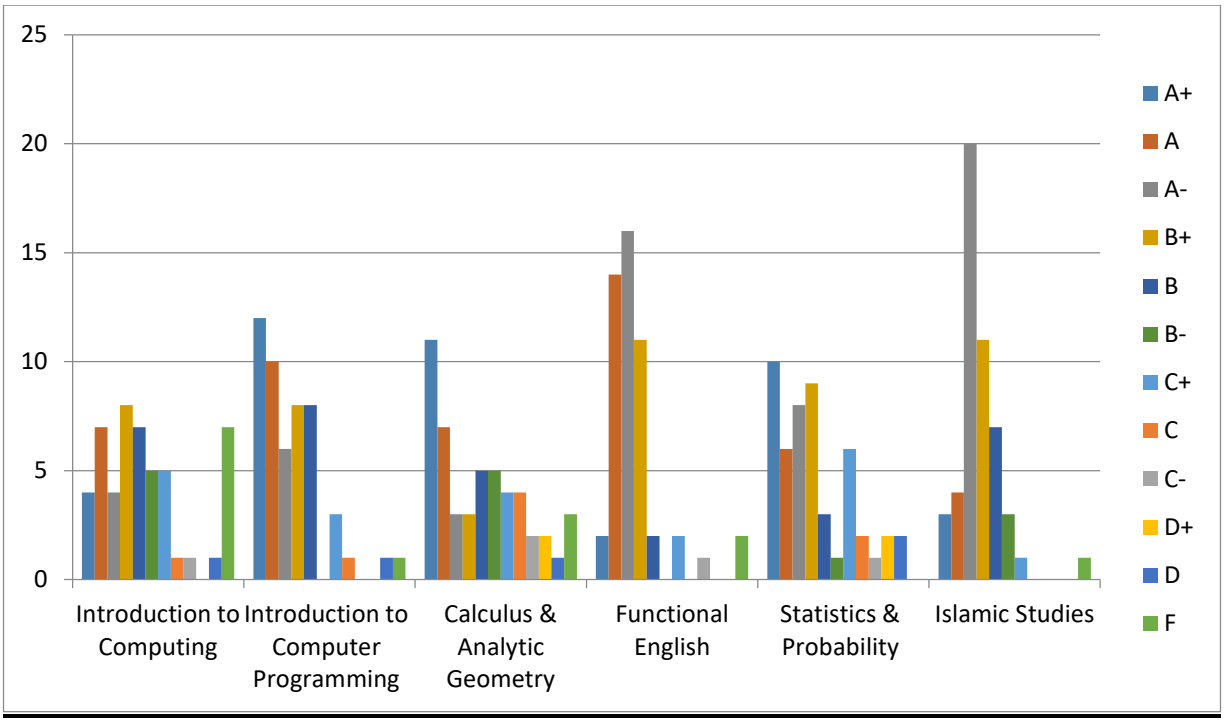
The performance of the department can be evaluated through performance of current students and Satisfaction of Faculty.

1.14Current Student's Performance

The semester wise performance is given below.

S #	Course Name	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F	Total Students
1	Introduction to Computing	4	7	4	8	7	5	5	1	1	0	1	7	46
2	Introduction to Computer Programming	12	10	6	8	8	0	3	1	0	0	1	1	46
3	Calculus & Analytic Geometry	11	7	3	3	5	5	4	4	2	2	1	3	46
4	Functional English	2	14	16	11	2	0	2	0	1	0	0	2	46
5	Statistics & Probability	10	6	8	9	3	1	6	2	1	2	2	0	46
6	Islamic Studies	3	4	20	11	7	3	1	0	0	0	0	1	46

1.14.1 Semester I

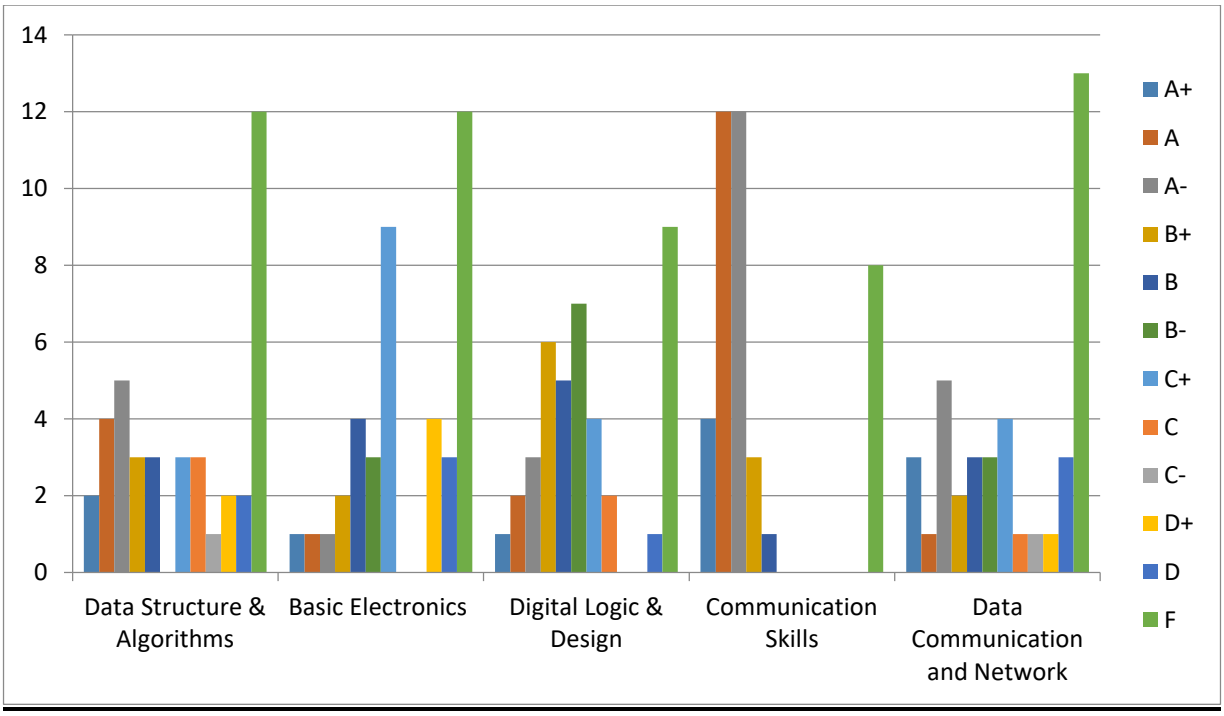


Grading Policy:

Marks % ageLetter grades		Grade point
90 – 100	A+	4.00
85 – 89	A	4.00
80 – 84	A-	3.66 – 3.93
75 – 79	B+	3.33 – 3.55
70 – 74	B	3.00 – 3.26
65 – 69	B-	2.66 – 2.93
60 – 64	C+	2.33 – 2.59
56 – 59	C	2.00 – 2.25
54 – 55	C-	1.66 –1.83
52 – 53	D+	1.30 – 1.48
50 – 51	D	1.00 – 1.15
49 and below	F	0.00

1.14.2 Semester III

S #	Course Name	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F	Total Students
1	Data Structure & Algorithms	2	4	5	3	3	0	3	3	1	2	2	12	50
2	Basic Electronics	1	1	1	2	4	3	9	0	0	4	3	12	50
3	Digital Logic & Design	1	2	3	6	5	7	4	2	0	0	1	9	50
4	Communication Skills	4	12	12	3	1	0	0	0	0	0	0	8	50
5	Data Communication and Network	3	1	5	2	3	3	4	1	1	1	3	13	50

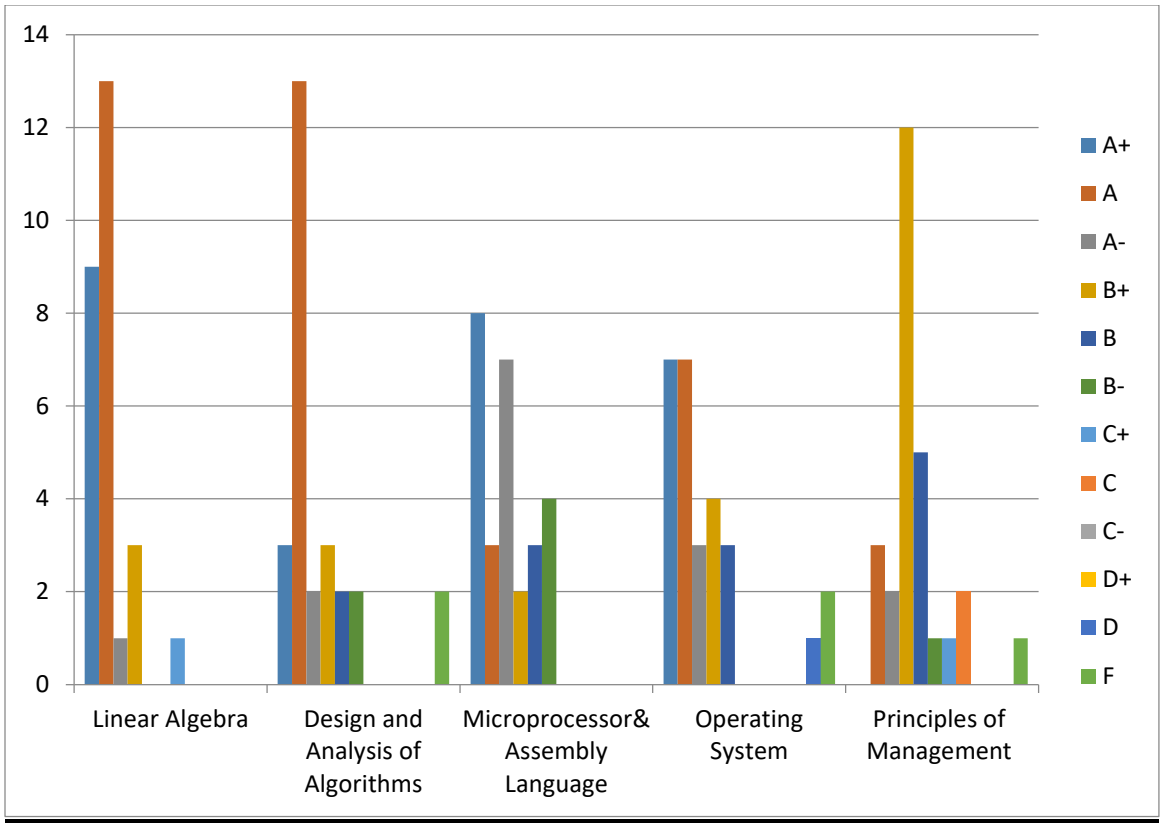


Grading Policy:

Marks % age	Letter grades	Grade point
85-100	A	4.00
80-84	A-	3.66
75-79	B+	3.33
71-74	B	3.00
68-70	B-	2.66
64-67	C+	2.33
61-63	C	2.00
58-60	C-	1.66
54-57	D+	1.30
50-53	D	1.00
Below 50	F	

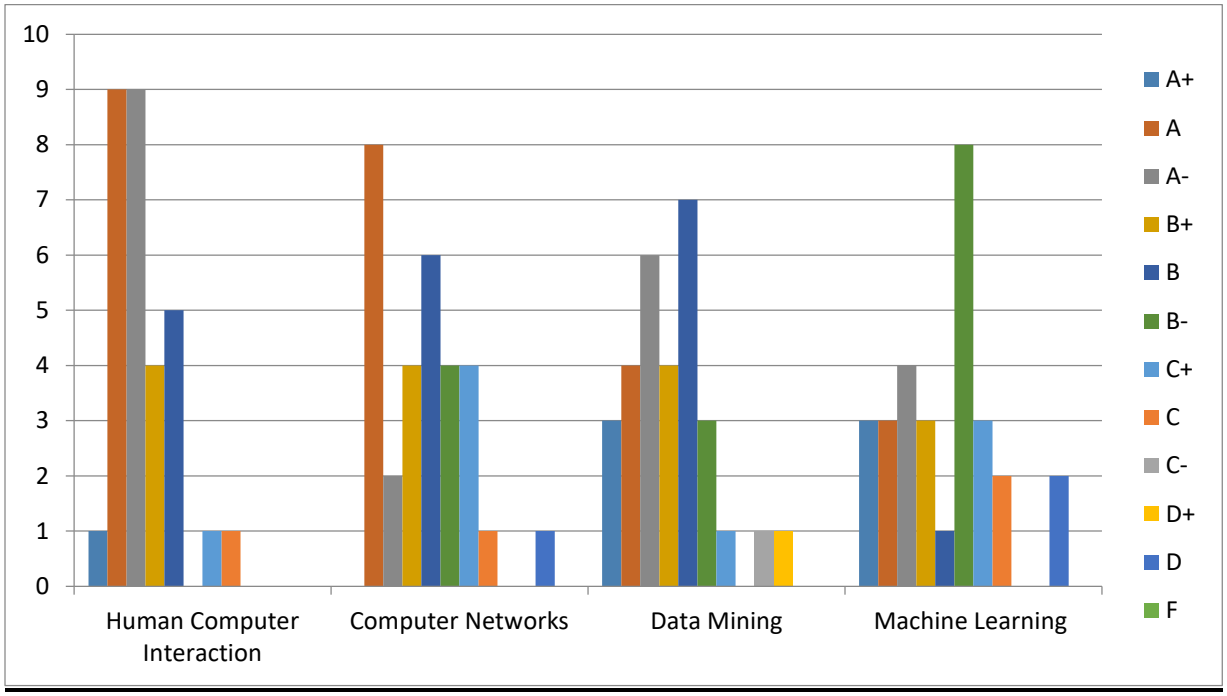
1.14.3 Semester V

S #	Course Name	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F	Total Students
1	Linear Algebra	9	13	1	3	0	0	1	0	0	0	0	0	45
2	Design and Analysis of Algorithms	3	13	2	3	2	2	0	0	0	0	0	2	45
3	Microprocessor& Assembly Language	8	3	7	2	3	4	0	0	0	0	0	0	45
4	Operating System	7	7	3	4	3	0	0	0	0	0	1	2	45
5	Principles of Management	0	3	2	12	5	1	1	2	0	0	0	1	45



1.14.4 Semester VII

S #	Course Name	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F	Total Students
1	Human Computer Interaction	1	9	9	4	5	0	1	1	0	0	0	0	30
2	Computer Networks	0	8	2	4	6	4	4	1	0	0	1	0	30
3	Data Mining	3	4	6	4	7	3	1	0	1	1	0	0	30
4	Machine Learning	3	3	4	3	1	8	3	2	0	0	2	0	30



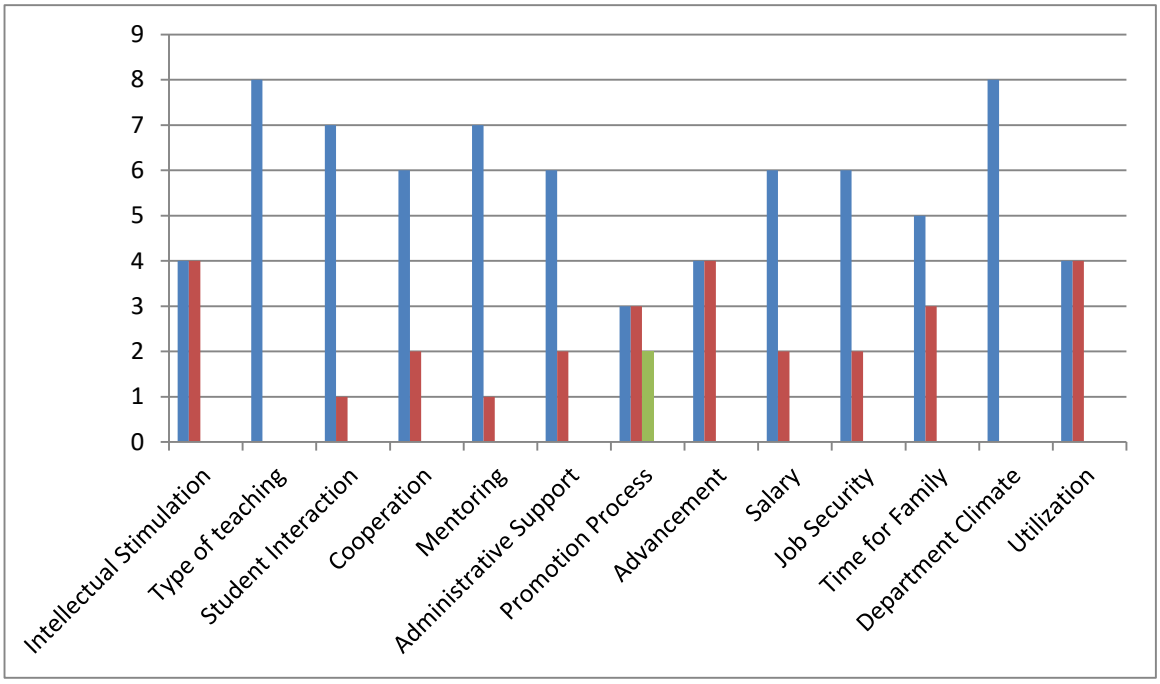
1.1 FacultySurvey

"Faculty Survey" was conducted and summary of facultymembers' feedback is given in table 1.4;

Table 1.4: Summary of Faculty Survey

	A	B	C	D	E
Research Mix	3	5	0	0	0
Intellectual Stimulation	4	4	0	0	0
Type of teaching	8	0	0	0	0
Student Interaction	7	1	0	0	0
Cooperation	6	2	0	0	0
Mentoring	7	1	0	0	0
Administrative Support	6	2	0	0	0
Promotion Process	3	3	2	0	0
Advancement	4	4	0	0	0
Salary	6	2	0	0	0
Job Security	6	2	0	0	0
Time for Family	5	3	0	0	0
Department Climate	8	0	0	0	0
Utilization	4	4	0	0	0

Summary of the faculty members is presented in following chart;



1.1.1 Faculty Student Ratios

Table 1.5: Student-faculty ratio

Total number of Students currently enrolled	Total full-time Faculty members	Ratio
147	5	1-29

Section 2

Criterion 2

Curriculum Design and Organization

The current developments in computer science have offered new exciting opportunities and challenges for creation of inventive learning environments in its curriculum design. The major element here is to train the graduates for the future. The challenge of getting all newly emerging technologies included in to the curriculum is becoming essential for the usefulness of curricula. There is requirement for curricula structures that are really able to produce as we put new demands on them. The curriculum is required to provide integration of all components and the foundations that allow accessing all of the new knowledge and technology to fulfil the vision of future.

The curriculum is designed and organised according to HEC curriculum for Computer Science.

2.1 Degree Title

Bachelor of Science in Computer Science

2.2 Definition Course Code

Discipline	**Year**	**Area**	**Course Number**
CS represents courses from computer science discipline. MATH represents courses form Mathematics discipline, IS represents courses form Islamic Studies discipline, Etc.	Year of courses e.g. For 1st and 2nd semester will be consider 1. For 3rd and 4th semester will be consider 2. Onward	Domain of courses e.g. 1. Fundamental Courses **represent 0** 2.Programming and Computing: **represent 1** etc.	Courses numbering in each domain. Introduction to Computing, Introduction to Computer Programming, Fundamentals of Algorithms, etc in domain 0 represent 1,2,3 respectively.
CS	1	0	1

2.3 Definition of Credit Hours

Theory Credit Hours	Lab. Credit hours	Total Credit hours
Number of theory classes in week for the duration 1 hours	Number of lab classes in week for duration 1 hours, Three classes of one (1) hours will be considered one credit hours	Theory Credit Hours + Lab credits hours
e.g.		
3	1	4
2	1	3

2.4 Program Structure and Degree Plan

Duration: 4 Years
One (1) semester: 18 weeks (Inclusive two (2) weeks for mid & final examinations)
Total Semesters: 8 Semesters
Total Credit Hours: 133 (one hundred and thirty three)

Semester wise Scheme of Studies for BS (CS)

Semester : 1				
Course Code	Title of Course	Category	Pre-requisite	Credit Hrs

CS101	Introduction to Computing	Computing Gen. Edu.	Nil	3(2+1)
CS102	Introduction to Computer Programming	Computing Core	Nil	4(3+1)
MATH101	Calculus and Analytical Geometry	Computing Supporting	Nil	3
EG103	Functional English	Computing Gen. Edu.	Nil	3
STAT105	Statistics and Probability	Computing Supporting	Nil	3
IS106	Islamic Studies	Computing Gen. Edu.	Nil	2
Total Credit Hours				18

Semester: 2				
Course Code	Title of Course	Category	Pre-Requisite	Credit Hrs
CS111	Object Oriented Programming	Computing Core	CS102	4(3+1)
MATH102	Multivariate Calculus	CS Supporting	MATH101	3
CS112	Discrete Structures	Computing Core	Nil	3
EG104	Technical and Business Writing	Computing Gen. Edu.	Nil	3
PS104	Pakistan Studies	Computing Gen. Edu.	Nil	2
PHY101	Physics	Computing Supportin	Nil	3
Total Credit Hours				18

Semester:3				
Course Code	Title of Course	Category	Pre-requisite	Credit Hrs
CS211	Data Structures and Algorithms	Computing Core	CS102	4(3+1)
CS231	Basic Electronics	Computing Supporti	Nil	3(2+1)

CS232	Digital Logic & Design	Computing Core	Nil	3(2+1)
EG204	Communication Skills	Computing Gen.Edu.	Nil	3
CS272	Data Communication & Computer Networks	Computing Core	Nil	4(3+1)
Total Credit Hours				17

Semester:4				
Course Code	Title of Course	Category	Prerequisite	Credit Hrs
CS223	Database Systems	Computing Core	Nil	4(3+1)
MATH203	Differential Equations	CS Supporting	MATH101	3
CS251	Software Engineering-I	Computing Core	CS102	3
Xxxxx	University Elective –I	University Elective		3
CSxxx	CS Elective- I	CS Elective –I		3(x,x)
Total Credit Hours				16

Semester :5				
Course Code	Title of Course	Category	Pre- req	Credit Hrs
MATH301	Linear Algebra	Computing Supportin	MATH101	3

CS313	Design and Analysis of Algorithms	CS Core	CS211	3
CS333	Microprocessor & Assembly Language	CS Core	CS232	3(2+1)
CS312	Operating Systems	Computing Core	CS211	4(3+1)
	University Elective –II	University Elective		3
Total Credit Hours				16

Semester :6				
Course Code	Title of Course	Category	Prerequisite	Credit Hrs
CS361	Artificial Intelligence	CS Core	CS211	3(2+1)
CS314	Theory of Automata and Formal Languages	CS Core	Nil	3
CS315	Numerical Computing	CS Supporting	MATH101	3(2+1)
	University Elective –III	University Elective		3
CSxxx	CS Elective-II	CS Elective		3(x,x)
CSxxx	CS Elective III	CS Elective		3(x,x)
Total Credit Hours				18

Semester:7				
Course Code	Title of Course	Category		Credit Hrs
CS461	Human Computer Interaction	Computing Core	Nil	3
CS431	Computer Architecture & Organization	CS Core	CS232	3
CS491	Software Project-I	Computing Core	Nil	Non. Cr.
CSxxx	CS Elective-IV	CS Elective		3
CSxxx	CS Elective –V	CS Elective		3(x,x)
CSxxx	CS Elective – VI	CS Elective		3(x,x)
Total Credit Hrs				15

Semester:8				
Course Code	Title of Course	Category	Pre-Req	Credit Hrs
CS411	Compiler Construction	CS Core	CS314	3(2+1)
CS492	Software Project-II	Computing Core	Nil	6
CSxxx	CS Elective – VII	CS Elective		3(x,x)
CSxxx	CS Elective – VIII	CS Elective		3(x,x)
Total Credit Hrs				15

2.5 Curriculum breakdown:

Course Category and Credit Hours for BS (CS)

S.No.	Course Category	Credit Hours
1	Computing core	42
2	Computing supporting	15
3	Computing General Education	16
4	Computer Science Core	18
5	Computer Science Supporting	09
6	Computer Science Elective	24
7	University Elective	09
Total Credit Hours		**133**

Semester wise Credit Hours for BS (CS)

S.No.	Semester	Credit Hours
1	Semester 1	18
2	Semester 2	18
3	Semester 3	17
4	Semester 4	16
5	Semester 5	16
6	Semester 6	18
7	Semester 7	15
8	Semester 8	15
Total Credit Hours		133

Standard 2-1:

The curriculum must be consistent and supports the program's documented objectives.

The standard 2-1 demonstrates the content of courses which are been linked with the program objectives which can be seen at Table 2.2.

Table 2.2: Courses versus program objectives

Courses/Groups of Courses	Objectives		
	Professional Development	Analytical ThinkingSkills	Academic Skills
Computing-Core Courses	√	√	
Major (Computer Sciences/Software Engineering/Information Technology)-Core Courses	√	√	√
Major (Computer Sciences/Software Engineering/Information Technology) Based – Electives	√	√	
Supporting Sciences		√	√
General Electives			√
University Electives			√

Standard 2-2:

Theoretical background, problems analysis and solution design must be stressed within the program's core material.

Table 2.3: Standard 2-2 requirement

Theoretical background	Analytical Thinking Skills	Solution design
Discrete Structures	Artificial Intelligence	Introduction to Programming Fundamentals
Theory of Automata & Formal languages	Compiler Construction	Object Oriented Programming
Digital Logic & Design	Data Structures and Algorithms	Advanced Object Oriented Programming
Operating Systems	Design and analysis of Algorithm	Database Systems
Microprocessor & Assembly Language	Computer Architecture & Organization	Software engineering and Software Project Management
Computer Architecture & organization		Data Communication & Computer Networks
		Visual C# Programming
		Final Project

Standard 2-3:

The curriculum must satisfy the core requirements for the program, as specified by the respective accreditation body.

The Department of Computer Science and Bio-Informatics follows the curriculum regulated by Higher Education Commission. Below is the list of core courses provided by HEC.

Computing - Core Courses (HEC) (40 Credit Hours)					
#	Code	Pre-Req	Course Title	Credit hours	Proposed Semester
1	CS	-	Programming Fundamentals	4 (3+1)	1
2	CS	1	Object Oriented Programming	4 (3+1)	2
3	CS	1	Data Structure and Algorithms	3 (2+1)	3
4	CS	-	Discrete Structures	3	1
5	CS	-	Digital Logic Design	3 (2+1)	3
6	CS	3	Operating Systems	4 (3+1)	5
7	CS	-	Database Systems	4 (3+1)	5
8	CS	2	Software Engineering	3	6
9	CS	-	Computer Communications and Networks	3 (2+1)	6
10	CS	-	Human Computer Interaction	3 (2+1)	7
11	CS	-	Final year Project	6	7, 8

The list below shows the courses included in curriculum by the department.

Computing - Core Courses (KKKUK) (42 Credit Hours)					
#	**Code**	**Pre-Req**	**Course Title**	**Credit hours**	**Proposed Semester**
1	CS102	-	Introduction to Computer Programming	4 (3+1)	1
2	CS111	CS102	Object Oriented Programming	4 (3+1)	2
3	CS211	CS102	Data Structures and Algorithms	4(3+1)	3
4	CS112	-	Discrete Structures	3	2
5	CS	-	Data Communications &Computer Networks	4(3+1)	3
6	CS	-	Digital Logic & Design	3 (2+1)	4
7	CS	CS211	Operating Systems	4 (3+1)	5
8	CS	-	Database Systems	4 (3+1)	4
9	CS	CS111	Software Engineering –I	3	4
10	CS	-	Human Computer Interaction	3 (2+1)	7
11	CS	-	Final year Project	6	7, 8

Standard 2-4:

The curriculum must satisfy the major requirements for the program as specified by HEC, the respective accreditation body / councils.

The Department of Computer Science and Bio-Informatics follows the curriculum regulated by the Higher Education Commission. Below is the summary of minimum requirements of components of the curriculum.

Category	Credit Hours	Cumulative Credit Hours
Computing-Core Courses	**42**	**84**
Major (Computer Sciences/Software Engineering/Information Technology)-Core Courses	**18**	
Major (Computer Sciences/Software Engineering/Information Technology) Based –Electives	**24**	
Supporting Sciences	**24**	**49**
General Education	**16**	
University Electives	**9**	
Total Credit Hours	**133**	**133**

Standard 2-5:

The curriculum must satisfy general education, arts, and professional and other discipline requirements for the program, as specified by the respective accreditation body / council.

In order to satisfy standard 2-5, the students are required to pass all courses recommended by the academic council of the university for the Computer Science. The Department of Computer Science and Bio-Informatics follows the curriculum which satisfies general education, professional and other discipline requirements for the program, as specified by the Higher Education Commission.

2.5.1. General Education Courses:

Computing - General Education Courses (HEC) (18 Credit Hours)				
#	Pre-Req	Course Title	Credit hours	Proposed Semester
1	-	English Composition and Comprehension	3	1
2	-	Technical and Business Writing	3	2
3	-	Communication Skills	3	3
4	-	Islamic Studies / Ethics	2	1
5	-	Pakistan Studies	2	2
6	-	Professional Practices	3	7
7	-	Introduction to Information and Communication Technologies	3	1

Computing - General Education Courses (KKKUK) (16 Credit Hours)				
#	Pre-Req	Course Title	Credit hours	Proposed Semester
18	-	Functional English	3	1
19	-	Technical and Business Writing	3	2
20	-	Communication Skills	3	3
21	-	Islamic Studies / Ethics	2	1
22	-	Pakistan Studies	2	2

23	-	Introduction to Computing	3(2+1)	1
24		Foreign Language Practice	Non Credit	3

2.5.2. University Elective Courses:

Computer Science - University Elective Courses (HEC) **(12 Credit Hours)**				
#	**Pre-Req**	**Course Title**	**Credit hours**	**Proposed Semester**
1	-	Financial Accounting	3	
2	-	Financial Management	3	4
3	-	Human Resource Management	3	5
4		Marketing	3	6
5		Economics	3	7
6		Psychology	3	6
7		International Relations	3	7
8		Foreign/Regional Language (French, German, Sindhi, Punjabi, Urdu etc.)	3	7-8
9		Philosophy	3	6-8

Computer Science - University Elective Courses (KKKUK) **(09 Credit Hours)**

#	Pre-Req	Course Title	Credit hours	Proposed Semester
34	-	Financial Accounting	3	
35	-	Financial Management	3	
36	-	Human Resource Management	3	
37	-	Principles of Management	3	
38	-	Marketing	3	
39	-	E-Commerce	3	
40	-	Economics	3	
41	-	Principles of Psychology	3	
42	-	Foreign/Regional Language (French, German, Sindhi, Punjabi, Urdu etc.)	Non Credit	
43	-	Principles of Philosophy	3	
44	-	Financial Accounting	3	
45	MG 311	Entrepreneurship	3	
46	MG 312	Management & Leadership	3	

Standard 2-6:

Information technology component of the curriculum must be integrated throughout the program.

The main objective of this program is to provide the students the ability to understand the computer and information technology and its applications in the real life.

Course Code	Course Title	Credit Hours	Prerequisite
CS	Introduction to Computer Programming	4(3+1)	Nil
CS	Introduction to Computing	3(2+1)	Nil

Standard 2-7:

Oral and written communication skills of the student must be developed and applied in the program.

To develop oral and written communication skills of the students, CS &Bio-Info Department offer following courses.

Course Code	Course Title	Credit Hours	Prerequisite
EG104	Functional English	3	
EG103	Technical & Business Writing	3	
EG204	Communication Skills	3	
	Tutorial class	Non Cr.	

Section 3

Criterion 3

Laboratories and Computing Facilities

Existing Computer labs

The Department of Computer Science and Bio-Informatics has three computer labs having 100 computers installed in it. The computers have no licensed software and only trials version of software are installed. The computer lab has one lab assistant to look after the computer lab.

Criterion 3 – Laboratories and Computing Facilities	
Factors	
1.	Are laboratory manuals / documentation / instructions etc. for experiments available and readily accessible to faculty and students?
2.	Are there adequate number of support personnel for instruction and maintaining the laboratories?
3.	Are the university's infrastructure and facilities adequate to support the program's objectives?
Actions taken based on the results of periodic assessments.	
Lab manuals have been developed for every practical oriented course. Another lab of 40 computers has been established with fully licensed software. The department has provided PERN connectivity not only to the department but to the whole university. More hiring is in pipeline for the computer lab.	

Standard 3-1:

Laboratory manuals/documentation/instructions for experiments must be available and readily accessible to faculty and students.

The Department of Computer Science and Bio-Informatics has developed lab manuals for all the practical oriented courses. The lab manuals are included in the BOS documents and are available for the students in the computer lab.

Standard 3-2:

There must be adequate support personnel for instruction and maintaining the laboratories.

The Department of Computer Science and Bio-Informatics has one Network support engineer and one lab assistant. The network engineer is responsible for necessary installations in the campus and lab assistant is available for the students in the lab during the classes.

Standard 3-3:

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

The Department of Computer Science and Bio-Informatics is providing the following computing facilities to full fill the requirements of the students.

S.No	Name of item	Quantity	Location
1	Computer system	100	Campus
2	Multimedia	6	Campus
3	Bandwidth	32Mb PERN	Campus
4	IT personnel	2	campus

Section 4

Criterion 4

Student Support and Advising

The Department of Computer Science and Bio-Informatics makes sure to complete the student program within time by offering approved subjects each semester regulated by HEC. Students' requests regarding elective subjects are selected through the academic counselling, and are made sure to make it improve by taking important measures in the program. Students are supported for the matters regarding academics and personal career on weekly basis through direct interaction with their instructors. An Academic Coordinator is available in the Department of Computer Science and Bio-Informatics for students' guidance. In order to meet the criterion 4 the following standards are discussed.

Standard 4-1:

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

The Department of Computer Science and Bio-Informatics follows the curriculum provided by the HEC.

One (1) semester: 18 weeks (Inclusive two (2) weeks for mid & final examinations

Total Semesters: 8 Semesters

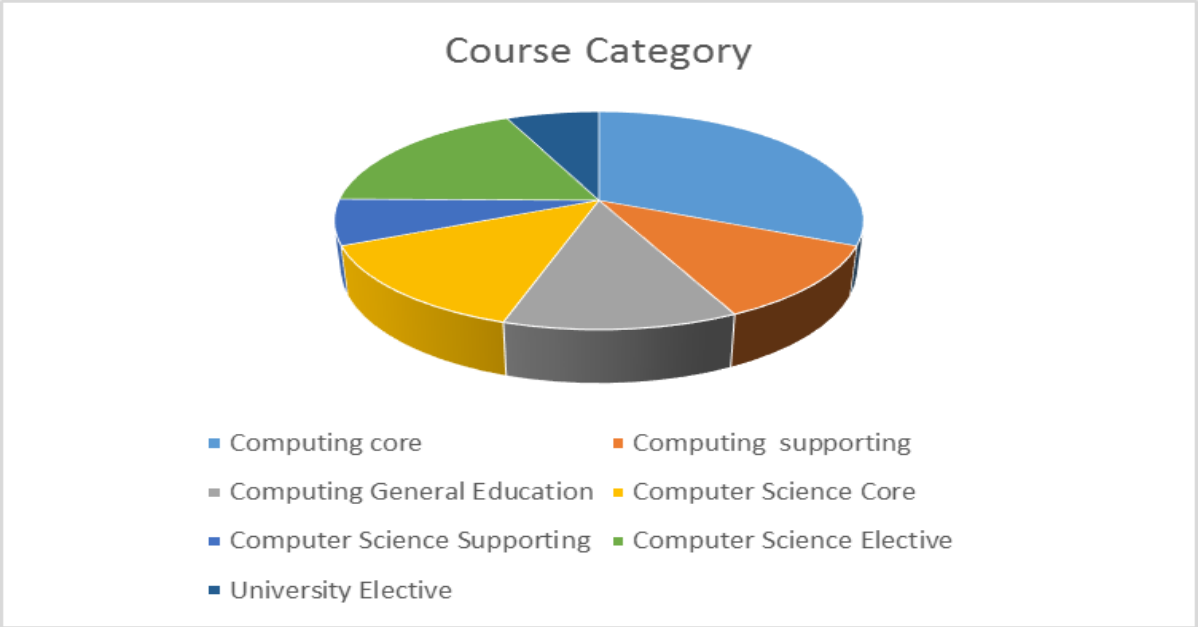
Total Credit Hours: 133 (one hundred and thirty three)

BS (CS) program is comprise of forty-three (43) courses as per HEC equal distribution criteria.

Definition of Credit Hours

Theory Credit Hours	Lab. Credit hours	Total Credit hours
Number of theory classes in week for the duration 1 hours	Number of lab classes in week for duration 1 hours, Three classes of one (1) hours will be consider one credit hours	Theory Credit Hours + Lab. credits hours
e.g.		
3	1	4
2	1	3

S.No.	Course Category	Credit Hours	Number of Courses
1	Computing core	42	12
2	Computing supporting	15	5
3	Computing General Education	16	6
4	Computer Science Core	18	6
5	Computer Science Supporting	09	3
6	Computer Science Elective	24	8
7	University Elective	09	3
Total Credit Hours		**133**	


Course Category
Computing core
Computing supporting
Computing General Education
Computer Science Core
Computer Science Supporting
Computer Science Elective
University Elective

Standard 4-2:

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

The Department of Computer Science and Bio-Informatics has fully qualified faculty members related to different areas of computer science. They are very enthusiastic to fulfill the requirements in teaching of all approved courses by the academic council according to the syllabus provided by Higher Education Commission. The department ensures effective interaction between students and faculty members for counselling on weekly basis. In order to follow the policy provided by university, the department has Assistant Professors and lecturers to teach all the courses.

Detailed of the Faculty w.r.t classes are attached as Annexure III.

Standard 4-3:

Guidance on how to complete the program must be available to all students and access to academic advising must be available to make course decisions and career choices.

When the student gets admission at the university, all program requirements are communicated to them through prospectus. For full time students' affairs and matters, a coordinator is present at the department to facilitate their issues. Further, it is ensured by the coordinator that students' enrollment is made properly according to program's requirements.

Additionally, tutorial classes have been started on weekly basis to provide academic advising for the students.

Section 5

Criterion 5

Process Control

The important rules, policies and regulations which address the standard 5 are provided in the sections below.

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.

5.1 Rules and Procedures for admission

1. A candidate interested in admission for a degree programme shall make an application for admission in response to advertisement by the university, on a prescribed admission form issued by the University within the specified dates. Attested copies of certificates / testimonials and other required documents should be attached to the application form.
2. A candidate may be required to qualify the entrance test to be conducted by the Admissions Committee. The admission to BBS program will be on merit to be based on entrance test, academic performance in intermediate examination and other factors as may be prescribed by the competent authority.
3. The admission to a degree programme is normally in the month of September for Fall Semester, January for spring and June for Summer.
4. The candidates seeking admission for the first time in any of the degree courses must complete all admission/enrolment requirements within specified dates, failing which may lead to cancellation of Admission.
5. Any candidate who was punished (major penalty) by his parent institution/university, for the act of indiscipline and objectionable activities, will not be allowed admission in the University.
6. A student at the time of first admission/enrolment with any communicable disease or mental or physical disability which may stand in the way of his selected field of study may be denied admission.
7. The Admission Committee may refuse admission to any student who in their (members) opinion has a background not conducive to learning.
8. The candidates and their parents have to give an undertaking to the effect that they will abide by the Rules and Regulations of the University and such other instructions as may be issued by the competent authority from time-to-time.

9.Each student has to submit an affidavit not to take part in political activities detrimental to the academic environment of the University.

10. The final authority of admission is with the respective Dean / Head of the Department or the Registrar. The admission committee is a recommendatory body.

11. The admission of candidates will remain provisional unless all University fees are paid and testimonials / documents verified.

5.1.1. Admission to International Students:

The credentials of a foreign student who seeks admission in the University are evaluated in accordance with the general regulations related to admission of foreign students as approved by the Ministry of Foreign Affairs and the Ministry of Education, Government of Pakistan. The applications for admission of foreign nationals should come through their embassies in Islamabad to Ministry of Education, Government of Pakistan, and to the University. Foreign students will be admitted only after proper verification of their applications and documents by the University.

5.2 Eligibility criteria for admission;

FA/B.Sc. with at least 45% marks from a recognized board.

5.3 Documents requirements;

- Matric DMC & Provisional Certificate / Secondary School Certificate
- Intermediate DMC & Provisional Certificate / Higher Secondary School Certificate
- Copy of Computerized National Identity card- Mandatory
- Four Recent Passport Size Photographs- Coloured

5.4 Migration/transfer Policy

A student from other educational institution, who intends to migrate to University, shall meet the following requirements:

- A genuine and plausible reason for migration.

- Production of a certificate of good character from his/her parent institution.
- Production of detailed marks certificate and syllabi of courses he/she studied for equivalence purposes.

5.5 Transfer of Credits:

- Students desiring to transfer their credits, earned at other institutions, will be accepted under the following conditions:
- Credits have been earned from institutions recognized / accredited by HEC.
- Original transcript is produced along with photocopy.
- Course outlines, duly signed by the institute, are produced for evaluation.
- Credits will be acceptable for undergraduate courses passed with at least 'C' grade / 56% marks / 2.0 out of 4.0 GP or equivalent and at least 'B' at least 60% / 3.0 / 4.0 GP for graduate courses.
- Credits from other institution will be evaluated by the equivalence/evaluation committee on a course-to-course basis with the courses offered by the University.
- Course outlines should match minimum 75% with that of the University.
- Maximum credit equivalent to 40% of the total credits of the degree programme of the University may be accepted.
- Letter grades / grade points of the transferred courses will not be counted towards CGPA of courses of the University.
- The transferred courses will appear in the full transcript of the University.
- Character certificate, from the last attended institution, stating that the student has not been expelled on misconduct, indiscipline, undesirable activities, may be produced.
- Students should not assume that their academic qualifications will allow them transfer of credits till written confirmation has been given.
- In case of acceptance and willingness of the student for admission, he will have to produce migration certificate from the last attended institution.

5.6 Change of subject and adjustment / refund of fee etc.

- The application for change of subject and adjustment of fee etc. shall be submitted through the respective Heads of Departments to the Registrar of the University.

- The change in subject and adjustment of fee etc. shall be allowed to the student on the following conditions:
    - That the admission of the student has been approved by the Vice Chancellor;
    - That the Heads of Departments are agreed to the change and the application is submitted to the University Registrar within 15 days (for semester system) and one month (for annual system) of his / her attending the previous Department subject to the fulfillment of the prescribed criteria for desired department.
    - In case of change of subject from one Department to another, all fees etc. shall be adjustable;
    - The tuition fees shall be refunded in full if the applicant cancels his/her admission within seven days of the commencement of classes and 50% tuition fee within 15 days after the commencement of classes. No tuition fee will be refunded after 15 days.

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.

5.7 Student Progress Monitoring Procedure;

Regarding monitoring, at the end of the semester, each teacher shall award letter grades for semester and provide master award list to the Controller of Examinations; who shall prepare copies of the award list, retaining a copy himself and sending one each to the concerned Director / Head, Dean of Faculties and Registrar.

Examination and Evaluation:

Each subjects shall carry100 marks during a semester. Students shall be assessed for 50% of the grade during the semester and 50% at the end of the semester. Distribution of Marks will be as under:

S.No:	Component	Marks
A	Attendance	05

B	Test, Quiz, Time-constraint, Assignments, Group Assignments, Class participation	15
C	Mid-term	30
D	Final Term	50
Total		**100**

The University may engage external examiners for the final examinations for quality control purposes. Final examination question papers set by external examiners will be moderated by the teachers concerned. In case of concerned teacher is not available, it can be moderated by Chairperson /Director /Hood or other teacher authorized by the competent authority.

5.8 Enrollment at the Department:

1. All students shall fill the prescribed Registration Form at the beginning of each semester for the courses they will study during that semester and submit the form to the office concerned.
2. At the beginning of each semester, students shall be offered courses of full load (12 or more Credit Hours) but they have the choice to select less courses than the full load. A student registering for less than 12 Credit hours will be a part time student.
3. The enrolment shall be considered incomplete if a student does not make full payment of prescribed fees and submit the prescribed form in the Admission Office.
4. Enrolment and fee payment shall be completed within notified dates unless authority concerned may, under special circumstances, permit a student with late fee to enroll.
5. A student shall enroll himself each semester unless he has completed all the requirements for the degree. In case of non-enrolment in any semester his admission shall stand suspended. The authority may remove suspension from him if he/she applies for regularization. In case, if one fails to enroll for two consecutive semesters, his admission shall be cancelled. Re-admission of such student shall be considered as a fresh admission.
6. When a course, for which a student is enrolled, cannot be offered according to the announced programmer he/she may take an alternative course. However, this must be done not later than 15 days after the date of enrolment.
7. A student shall be allowed to:
    a. change a course within 7 days of the commencement of a semester, and
    b. Withdraw from a course within 4 weeks of the commencement of semester. Withdrawn courses will appear on transcript with letter grade “W”.

c. Change his declared specialization / major choice up to 2nd semester for two years Master and 5th semester for Master of 3½ years and Bachelor 4 years after obtaining the advice and approval of the Hood / Dean. A CGPA of 2.00 is required for a change of major.

5.9 Attendance:

1. The educational process at the University depends, to a large extent, on regular classes, make-up classes, laboratory work, in-semester tests, and examinations. Failure to attend any of these can influence academic record, or even lead to dropping from the course, award of "F" grade, or expulsion from the University. A student has to fulfill the following requirements:
2. Students must meet the attendance criterion in every course. Students with less than 75% attendance in theory or practical separately of any course, shall not be allowed to sit in the final examination of that particular course in a semester, provided that the period of absence in the case of participation in co-curricular/sports activities outside Karak and performing umbra / hajj, with the permission of the Competent Authority, may not be counted.
3. The Vice Chancellor may condone absence from classes up to 40% of the total lectures delivered.
4. Attendance counting shall start from the date of resumption of classes.
5. If a student remains absent for one week continuously from all classes without any intimation his/her admission would be suspended by the department concerned.
6. If a student fails to pay registration renewal fee, his / her name may be deleted from attendance list and will not be allowed to attend classes.
7. Students shall take the required number of quizzes / examinations, complete assignments / projects and fulfill other evaluation criteria set by the University, In case a student joins a course after it has started, he/she will be responsible for any missed quizzes, assignments, and lectures. The marks in missed quizzes will be zero while make up tests, assignments, projects, and labs can be arranged in consultation with the teacher / head of department.
8. Leave up to seven days in all degree programs shall be granted by the Chairperson/Director/Head of Department on the recommendation of concerned teachers and 15 days by the Dean in verifiable exceptional cases. Maximum leave shall not exceed 22 days per semester. The production of a medical certificate, in support of leave, shall be compulsory for an ailing student. The student will have to satisfy the Chairperson/Director/Head of Department about the genuineness of his/her request.

9. It is the responsibility of the students to be aware of their attendance status at any given time. Attendance status can be checked from course teacher / Students Service Office / University website.
10. The following marks on the basis of attendance percentage above 75% and class participation may be awarded to a student in the Internal Evaluation result:

Attendance / Participation	**Marks**
91-100%	5
81-90%	4
76-80%	3
Below 76 %	0

5.10 Number of Subjects:

At the beginning of the semester the subjects are been identified from Prospectus for each respective semesters which are enlisted on the subject list and verified by the Head of the Department. The policy for number of subjects to be taken by the student is six (18 Credit Hours).

5.11 Summer:

Summer Semester is planned each year, only those subjects are offered which has to be taken as reappear. No regular subject is allowed to take during summer semester. Summer semester is comprised of 8 weeks having lectures on daily basis, only two subjects are allowed to take by the students during summer semester according to Higher Education Commission Regulation.

5.12 Evaluation of Student Progress Monitoring Procedure;

Student Progress Monitoring is carried out by quantifying the final GPA. The department takes different measures if a student failed to achieve the desired CGPA.

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.

5.13 Faculty Recruitment Policy;

1. Post request to be initiated by the Establishment Section after consultation with the concerned HODs subject to availability/sanction of the post.
2. Advertisement with the conditions and criteria of the posts be floated in national and regional media. At least 15 days be given for submission of application forms.
3. Terms and conditions of advertisement will be as under:
4. Online application forms be submitted within 15 days of publishing of advertisement.
5. The candidates will be scrutinized both online and manually.
6. There shall be scrutiny committee for the positions advertised who will scrutinize the applications as per given criteria.
7. There shall be an appellate committee of the three senior teachers and Registrar that will decide appeals of the candidates lodged within 15 days after the scrutiny.
8. Eligible candidates (BPS 7- BPS 18) be screened out through testing agency like ETEA, NTS, PTS etc through competitive biddings.
9. The screening test qualification for BPS 17 and BPS 18 will be 60%, and 50% for BPS 7- to BPS 16. Qualifying marks in demonstration for Lecturers will be 50%. However, the total of screening test and demonstration will not be less than 60%.
10. The GRE/GAT (Subject) test (if any) qualified by 60 % marks is also valid for lecturer post, having validity for the period in which post is advertised, are also be considered as eligible in the screening test.
11. Total marks for quantification will be 100.
12. Quantification will be done up to the qualifying degree required for the post. One step up qualification of the post will be considered as additional qualification.
13. One third division for officials, officers, lecturers and Assistant Professors in any examination right from Matric to Masters/MS/MPhil can be waived off by higher qualification. Similarly 2nd Division in the last exam, if required first division in advertisement for the post, can be relaxed by higher qualification i.e. last required degree (2nd Division or less than 3 CGPA) be given 60% marks or 3 CGPA respectively. One candidate can be given only one relaxation at a time. However, such candidates will not be entitled for additional marks.
14. The distinction marks weightage be given only in the qualifying degree required for the post.
15. The quantification will be accumulated as per following formula:

a. Obtained marks in SSC+ Intermediate+ BA/BSC+ MA/MScs/MPhil (up to last degree required for a post) divided by total marks of these degrees X (required weightage for the posts like 25, 30, & 40 as prescribed in the evaluation rules of Up)

Or

b. Obtained marks in SSC+ Intermediate+ BS (Honors) +MS/MPhil (up to last degree required for the post) divided by total marks of these degrees X (required weightage for the posts like 25, 30, & 40 as prescribed in the evaluation rules of Up)

16. In case of CGPA in transcript with obtained marks can be converted into %age by the following formula for quantification.

    (Obtained Marks divided by total marks) X 0.9 X100 and be added to the formula shown in 15 (a) or (b).

    In case the CGPA doesn't show obtained marks then it will be converted into percentage by the given formula:

    (Obtained CGPA +1) X 20 X 0.9 and be added to the formula shown in 15 (a) or (b).
17. Relevant experience marks will be awarded up to the prescribed limit as per Up evaluation rules i.e. 10 and 15 after subtracting the required experience of a post. Six months or more be considered as one year e.g. university teaching or post graduate college experience, only in relevant subject, be given weightage in lecturers.
18. One negative mark be awarded for each degree in parts or improvement. This will not go beyond 4 marks.
19. Merit lists of short listed candidates will be uploaded on the University website for 10 days for any query.
20. Marks calculated as grand total are to be converted into whole numbers by deleting less than 0.5 fraction and 0.5 or above be converted into whole number and added to the grand total.
21. Three to five candidates be called for interview before selection board for one post as per order of merit i.e. academic, distinctions, experience, additional qualification, negative marks (if any) performance in screening test and demonstration.
22. The interview marks be calculated as mean of the total awarded marks divided by Number of selection board members. At least 60 percent marks is qualifying level in the interview e.g. 12 marks out of 20 will be qualifying limit.
23. Fifteen days be given as joining time to the new inductees. The Vice Chancellor has the powers to extend joining time by further 30 days in case of genuine reasons as per provision in the S.R. 301, in FR Rules.
24. The offer of appoint will be subject to verification of all documents/degrees.

5.14 Appointments on Tenure Track System

a. Post to be advertised by the University (Existing Faculty may apply without Advertisement)
b. Submission of a comprehensive Application Dossier by the Applicant to the University

c. Applications for Assistant Professor are to be Scrutinized by the University and after scrutiny, the eligible candidates be allowed to appear before selection board of the University.
d. Application for Associate Professor/ Professor are to be sent to Technical Review Panel of foreign experts and in case of Positive Recommendations by at least two TRP members, the case be placed before Selection Board of the University.
e. In case of non-positive report, rejection Letter to be sent to the Applicant.
f. All the applicants to be evaluated as per the HEC criteria given in the Model TTS Process Statutes Version 2.0 January 1, 2008 in the following areas:
    1. Teaching 2. Scholarship, research, or other creative work 3. Service 4. Personal characteristics

5.15 Highly qualified faculty member's retaining Policy;

Khushal Khan Khattak University Karak is committed to retain and develop outstanding faculty who are committed to the mission of the University. To achieve this goal, the following strategies have been devised;

- Ensuring that University provides fair, timely selection, appointment/promotion process with HEC criteria.
- Hard area allowance, a better incentive/attractive salary package and excellent working environment.
- Giving priority to faculty development through training and support.
- The university is paying Ph.D. allowance to all Ph.D. holders in different fields.

5.16 Faculty evaluation, promotion Procedure;

Basic Pay Scale (BPS)

The Higher Education Commission (HEC) has decided to finalize the eligibility conditions under BPS for the appointment and promotion of faculty members in the Universities.

a. Lecturer (BPS- 18):

First Class Master's Degree/B.Sc. (Eng.) or Second Class Master's degree with M.Phil. or equivalent degree awarded after 16 Year of education in the relevant field with no 3rd Division in the academic career, from HEC recognized University/Institution. Provided that the candidate holding higher degrees viz. M.Phil./Ph.D. or equivalent degree but with only one 3rd division in entire academic career shall also be eligible.

Provided further that benefit of higher degree vim in M.Phil./Ph.D. or equivalent degree shall not be allowed to the candidates who are eligible on the basis of higher qualification.

b. Assistant Professor (BPS- 19):

Ph.D. in the relevant field from HEC recognized University/Institution. No experience is required OR

Master Degree (Foreign) or M.Phil./MS (Pakistan) or equivalent degree awarded after 18 Year of education as determined by the HEC in the relevant field from HEC recognized University/Institution, plus required teaching/research experience in HEC recognized University or a post graduate institution or the professional experience in the relevant field in a National or International organization.

c. Associate Professor (BPS- 20)

Ph.D. in the relevant field from HEC recognized University /Institution plus 10 (Ten) Year Teaching/Research experience in an HEC recognized University or a post graduate institution or professional experience in the relevant field in a National or International organization, plus 10 (ten) research publications (with at least 04(four) publications in the last 5 Year) in internationally abstracted Journals recognized by the HEC, OR

04(Four) Year post Ph.D. Teaching/Research experience in HEC recognized University or a Post Graduate Institution or Professional experience in the relevant field in a National or International Organization, plus 10 research Publications (with at last 4(four) Publications in the last five Year) in HEC recognized journals.

d. Professor (BPS-21)

Ph.D. in the relevant field from HEC recognized University /Institution plus 15 (fifteen) Year Teaching/Research experience in HEC recognized University or a post graduate institution or professional experience in the relevant field in a National or International organization, plus 15 (fifteen) research publications (with at least 05(five) publications in the last 5 Year in internationally abstracted Journals recognized by the HEC, OR

8(Eight) Year post Ph.D. Teaching/Research experience in HEC recognized University or a Post Graduate Institution or Professional experience in the relevant field in a National or International Organization, plus 15 research Publications (with at last 5(five) Publications in the last five Year) in HEC recognized journals.

Faculty Evaluation

The Annual Confidential Report (ACR) [Performance Evaluation Report (PER)] is an important document pertaining to the professional profile of the faculty. ACR is essential for career development and promotions are based on the comments of the reporting and countersigning officers.

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.

5.17 The process and procedures used to ensure that teaching of course material is effective and focus on students learning.

- A list of courses is approved by the Board of Studies as per HEC criteria.
- It is ensured each faculty member is assigned the workload approximately evenly.
- A file containing the course objectives and outlines is provided to the faculty member.
- Each faculty member prepares the course folder which contains Attendance Record, Time Table, Course Contents, Record of Assignments, Record of Quizzes, and Record of Examination
- The Head of Department also keep an eye on attendance of students on monthly basis.
- He makes sure that a Make Up class must be announced and taken in case of absence of a faculty member.
- A list of short attendance is also prepared by each faculty member and communicated to program Hood each month.
- The Hood announces the short attendance students through notice board.
- The students who fail to improve the attendance are barred from sitting in exam of respective course.

5.18 Faculty course plans for the term;

Faculty members prepare a course file comprises of course plan. The course plan includes weekly breakup, lab/teaching tools, grading policy, Quizzes and assignments.

5.19 Course information delivery to students;

In very first lecture, the course introduction is provided to students. Introduction comprises of course objectives, course contents, marks distribution, credit hours, and schedule for mid and final exam.

5.20 Student evaluation;

Students are evaluated through attendance, assignments, quizzes, class presentations, class tests, mid-semester and final semester examinations. The weight-age of each module is communicated to students by the teacher in the first class.

- For theory based course weight-age of marks is 50% final exam, 20% sessional, and 30% mid-term.
- For lab based course weight-age of marks is 50% final exam, 20% sessional, and 30% mid-term.

5.21 The process and procedures used to ensure that delivery of course material is effective and focus on students learning.

The quality of delivering course material is maintained using the latest technologies within classrooms such as multimedia, computer animations, and etc.

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.

5.22 Evaluation of Thesis/Project:

1. Both synopsis and thesis/project report shall have approval of the departmental committee.
2. The thesis/project report shall be evaluated by an External Examiner(s) and Supervisor(s).
3. The student shall give a seminar on his/her thesis/project report before viva-voce examination, where required.
4. The date, time, and venue of examination shall be notified at least one week before the commencement and the faculty and students interested to participate in the oral presentation may be allowed. The

notification to this effect may be made by the Head of Department / Chairman / Director of Institute / Controller of Examinations.

5. The Controller of Examinations shall get the thesis/project report evaluated within two months after the date of submission / resubmission of thesis/project report in his Office. Any delay beyond two months shall be brought to the notice of the Vice Chancellor.

6. The thesis/project report shall be evaluated according to the following numerical and letter grades:

a. The thesis shall be graded in percentage of marks.

b. The marks so awarded shall be converted into letter grades by the prescribed formula, which shall be A+, A, B+, B, C+, C or F (fail), as the case may be. Average grade on the basis of course work and thesis shall then be worked out to calculate the final CGPA.

c. Both the Examiner / Supervisor shall sign the thesis/project report after the Viva-Voce Examination, after making necessary corrections and incorporating therein, any suggestions by the Examiners/Supervisor.

d. Both the Examiner / Supervisor shall sign the result sheet prescribed for this purpose at the end of the examination. The supervisor will submit the result to the Controller of Examinations.

f. In case of disagreement among the Examiner / Supervisor regarding the acceptance of the thesis/project report, it shall be referred to a third External Examiner, appointed by the Vice Chancellor, whose decision shall be final.

g. Thesis evaluation fee will be paid by each student.

5.23 Project / Research and Research Work:

1. The synopsis approved for thesis / project research shall remain valid only for two semesters. The Vice Chancellor may extend this period on case to case basis.

2. A student admitted to the course in partial residence shall undertake research/project work in a laboratory or institute approved by the Board of Advance Studies and Research.

5.24 Failure in Thesis Examination / Submission:

1. If a candidate fails in the thesis/project report examination, he/she may enroll again and submit a revised thesis/project report on payment of the prescribed examination fee but he/she shall not be entitled to resubmit his thesis/project report before the expiry of six months after the date of declaration of the result of the last thesis/project report examination. Hershel can avail of this chance only once.
2. If a student fails to submit his project / thesis on or before prescribed date, he/she shall be granted incomplete grade (I).
3. A student who gets an "I" grade in the project/thesis shall register himself again in the next semester by paying the registration fee until the project/thesis is completed.

5.25 Requirement for Award of Degree:

1. It is the responsibility of each student to fulfill the following graduation requirements:
2. The student has earned the requisite credit hours of the degree program.
3. The student's CGPA on the scale of 4.0 is not less than:
   a. Bachelor / Master = 2.0
   b. M. Phil / M.S. = 2.5
   c. Ph. D = 3.0
4. The student has passed all the core, supporting and compulsory courses of the degree program.
5. The student has met his financial and material obligations towards the university and there is nothing outstanding against him.
6. The student produces clearance certificates from all concerned departments and sections.

5.26 Award of Degree:

1. A candidate who passes all the examinations with the prescribed CGPA shall be awarded degree which shall be conferred on him at the subsequent convocation, which is normally held annually.
2. It is mandatory for all students to pay convocation fee and be present at the occasion.
3. The Controller of Examinations will issue Provisional Certificate till issuance of final degree.
4. The character certificate to students will be issued by the Head of the concerned department.

5.27 Project / Research and Research Work:

1. The synopsis approved for thesis / project research shall remain valid only for two semesters. The Vice Chancellor may extend this period on case to case basis.
2. A student admitted to the course in partial residence shall undertake research/project work in a laboratory or institute approved by the Board of Advance Studies and Research.

5.28 Failure in Thesis Examination / Submission:

1. If a candidate fails in the thesis/project report examination, he/she may enroll again and submit a revised thesis/project report on payment of the prescribed examination fee but he/she shall not be entitled to resubmit his thesis/project report before the expiry of six months after the date of declaration of the result of the last thesis/project report examination. Hershel can avail of this chance only once.
2. If a student fails to submit his project / thesis on or before prescribed date, he/she shall be granted incomplete grade (I).
3. A student who gets an "I "grade in the project/thesis shall register himself again in the next semester by paying the registration fee until the project/thesis is completed.

Section 6

Criterion 6

Faculty

Currently Department of Computer Science and Bio-Informatics has full time 6 qualified faculty total in numbers according to the needs of curriculum designed by HEC. The department has always tried its best to recruit, retain and satisfy high quality faculty with it.

Standard 6-1:

There must be enough full time faculty who is 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. The majority of the faculty must hold a Ph.D. in the discipline.

To ensure fully presence of the faculty in all areas of Computer Science, qualified faculty is hired by the university as per requirement. The qualification and interests of all the faculty members are according to the courses designed and provided by board of studies. Courses are reviewed during Boss to satisfy the requirements for quality education regulated by HEC.

Faculty qualification and designation is mentioned below.

1. **Dr. Muhammad Inam Ul Haq**
   Designation: Head of Department
   Qualification: Ph.D. Lab Hubert Curien, JeanMonnet University , Saint Etienne France. 2013.
   Research Interest: Image Processing, Texture Evaluation and Classifications, Computer/machine vision , Computer Networks , e-learning, e-management.

2. **Dr. Muhammad Zubair**
   Designation: Assistant Professor/Director ORIC
   Qualification: PhD, School of Information and Communication Engineering, Dalian University of Technology, China
   Research Interest: Wireless Communication, Future Networks, Mobile Networks, Next Generation Networks, Social Networks, Bio-Inspired Networks

3. **Dr. Abdul Aziz**
   Designation: Assistant Professor
   Qualification. Phil, Ph.D.(Biochemistry/Molecular Biology) Quaid-I-As am University Islamabad
   Research Interest: Human Molecular Genetics, Genotyping and sequencing

Phone#+92-302-5363053
Email, aziz_qau85@yahoo.com, abdul.aziz@kkkuk.edu.pk

4. **Dr. Noor Ulna**
   Designation: Assistant Professor
   Qualification: M.Phil., PhD (Biochemistry/Molecular Biology: Quaid-I-AzamUniversityIslamabad, 2013)
   Post-Doc: CAS-MPG Partner Institute of Computational Biology, Shanghai Institute for Biological Sciences, Shanghai, China
   Research Interest: Plants Molecular Biology, Photosynthesis Evolution
   Email: noorulhaq@kkkuk.edu.pk, noorqu@gmail.com

5. **Tariq Usman**
   Designation: Lecturer
   Qualification: MS (Computer Science) IqraUniversityKarachi
   PhD in progress
   Research Interest: VANET, Wireless sensor Networks(WSN), IoT, social Network, BAN

6. **Dr. Ghani-Ur-Rehman**
   Designation: Lecturer
   Qualification: MS (Computer Science) IIU Islamabad
   PhD in progress
   Research Interest: Next Generation Network, Future Internet. IoT, Social Network

7. **Shad Muhammad**
   Designation: Lecturer
   Qualification: MS (Computer Science) London Metropolitan University London
   PhD in progress
   Research Interest: Mobile ad-hoc networks, IoT, social Network, BAN

Faculty Resume are attached as Annexure IV.

Note: Visiting faculty is hired for the following courses

1. Mathematics
2. Physics
3. Pakistan Studies
4. Islamic Studies
5. Management Sciences courses

6. Economics
7. Marketing
8. Electronics

And etc.

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.

Many of faculty members in Department of Computer Science and Bio-Informatics are currently enrolled in PhD. Those faculty members who are enrolled in PhD program in different universities of Pakistan are facilitated in terms of their academic responsibilities at the department according to their scheduled classes. In order to retain and develop faculty professionally in academic different seminars are arranged by the University and department to enhance their approach and level of understanding towards computer science discipline.

As soon as papers are been called from different universities around the Pakistan, department make sure that our faculty has fully participation in their respective discipline/are of research.

No. of Journal Papers	No. of Conference Papers	No. of Books/Books chapters
12	06	01

No. of Seminars conducted in Department in 2018	05
No. of Conferences/Events attended by the delegation from department	08
No. of curricular and extracurricular events by institution	11

Standard 6-2(b)

Describe the criteria for faculty to be deemed current in the discipline and based on these criteria and information in the faculty member's resumes, what percentage of them is current. The criteria should be developed by the department.

6.1 Describe the means for ensuring that full time faculty members have sufficient time for scholarly and professional development.

- The faculty member is given relaxation, regarding time and work load to attend his/her classes inside the campus or outside the campus.
- The faculty member is provided registration fees and traveling charges if he/she wants to attend any training within country.

6.2 Describe existing faculty development programs at the departmental and university level.

- Seminars by highly qualified scholars are conducted on monthly basis.
- Workshops are been organized by the university according to HEC guidelines.
- Faculty members are nominated for each workshop conducted by the university and their presence is mandatory.

6.3 Demonstrate their effectiveness in achieving faculty development.

With the help of faculty development, the faculty members are able to demonstrate their abilities in terms of qualification improvement, promotion, research and development, quality of teaching.

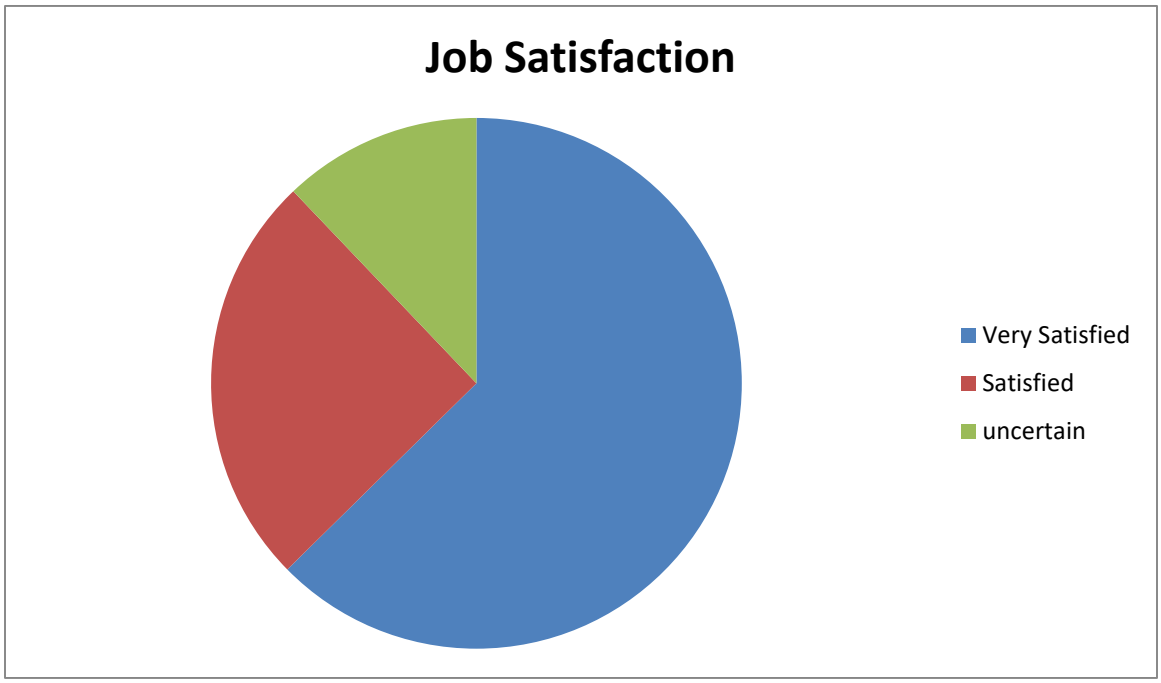
Standard 6-3:

All faculty members should be motivated and have job satisfaction to excel in their profession.

It is pleasant to note that majority of faculty members of Department of Computer Science and Bio-Informatics has shown their satisfaction.

	Very Satisfied	Satisfied	Uncertain	Not Satisfied	Very Dissatisfied
	%age	%age	%age	%age	%age

Average Satisfaction %age	62.5	25	12.5	0	0



A majority of faculty is very satisfied or satisfied.

Section 7

Criterion 7

Institutional Facilities

This criterion describes the facilities provided by institution such as library, classrooms and offices.

Several standards are discussed to meet the program objectives through these facilities.

Standard 7-1:

The institution must have the infrastructure to support new trends in learning such as E-learning.

1. KKKUK is connected with the PERN network of HEC.
2. A video conference room is in progress to facilitate local and international webinars.
3. The total bandwidth of 32 MB is been provided by the university.

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.

A well-managed central library has been setup at main campus to keep updated the students and faculty members with the latest trends in different Discipline. A qualified librarian with a well-trained supporting staff is responsible to manage the library in an efficient manner. Approximately 14200 books, subscription to adequate number of international journals, periodicals and magazines have been stocked in library.

The library also offers access to the HEC Digital Library. Total number of books related to Computer Science is 4045.Library provides support in enhancing the technical knowledge of the students.

Standard 7-3:

Class-rooms must be adequately equipped and offices must be adequate to enable faculty to carry out their responsibilities.

All classrooms are equipped with multimedia facilities. As already discussed in standard 7.1, the faculty offices are equipped with adequate resources to accomplish their job responsibilities in efficient manner.

Section 8

Criterion 8

Institutional Support

Khushal KhanKhattakUniversity, Karak is making best efforts to provide adequate resources to the faculty, library, and laboratories and computing facilities. The following standards explain these resources.

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.

Already discussed in Sections 5-3 and 6-3

Adequate budget is sanctioned each year for research and development, faculty development program, books and research journals for library, to enhance the teachers' and scholars' competency as mentioned below.

Standard 8-2:

There must be an adequate number of high quality graduate students, research assistants and Ph.D. students.

Semester	No. of Students			
	BS	M.S	Research Assistant	PhD
1st	50	06	-	-
3rd	40	05	-	-
5th	27			
7th	30			
Total	147	11		

Standard 8-2:

Financial resources must be provided to acquire and maintain Library holdings, Laboratories and Computing facilities.

Library

Describe the resources available for the library.

- A well-managed central library has been setup having computer related books at main campus to keep updated the students and faculty members.

Laboratory

Describe the resources available for the laboratories.

- Currently department has one computer lab and the other one is in the completion stage.
- Department still needs hardware and research labs.

Computing Facilities

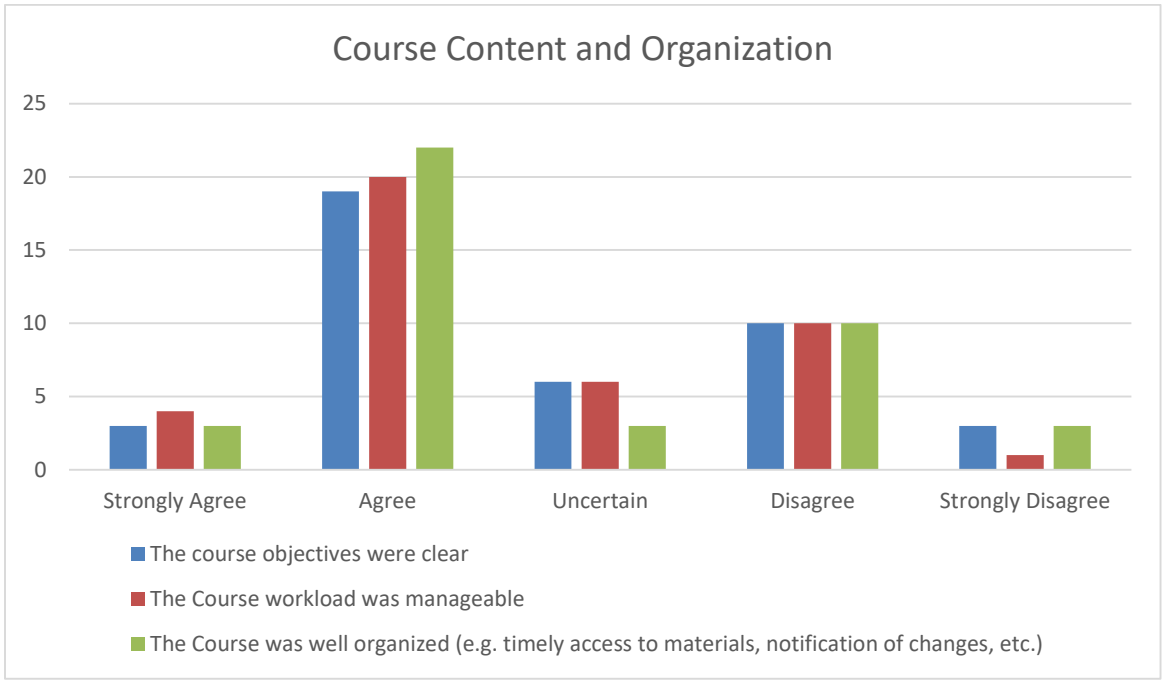
Describe the resources available for computing facilities.

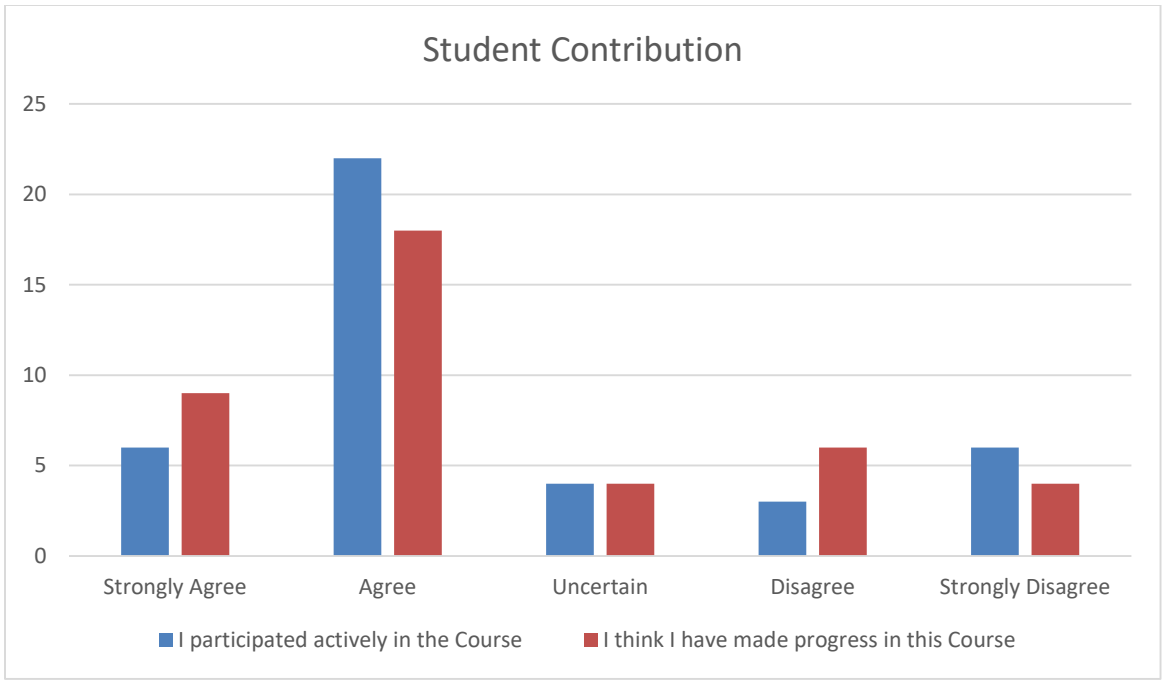
- The existing computer lab in department has 30 computer system and Internet facility.

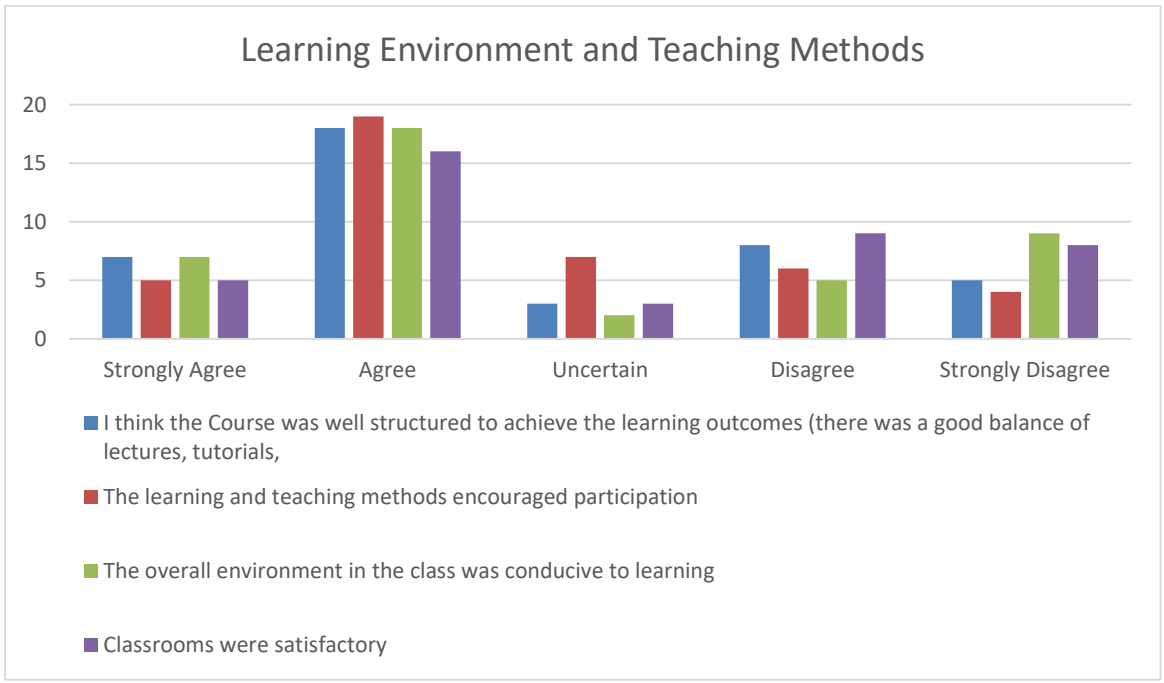
Annexure I: Students Evaluation (Subject and Faculty Wise)

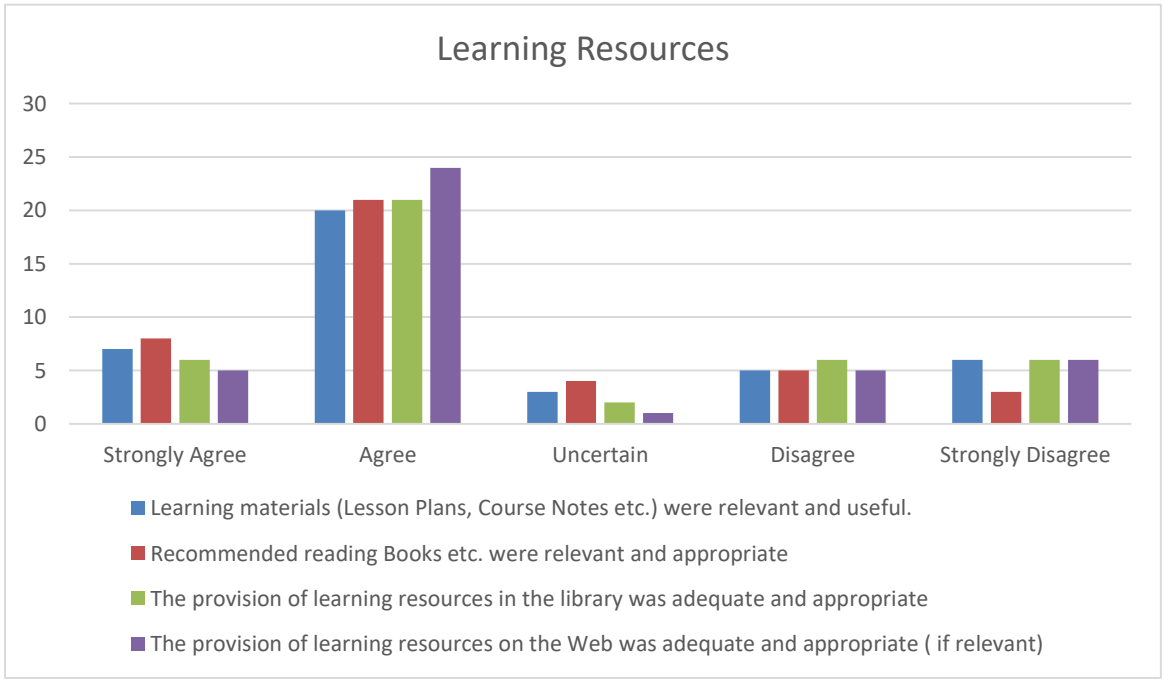
Introduction to Computing

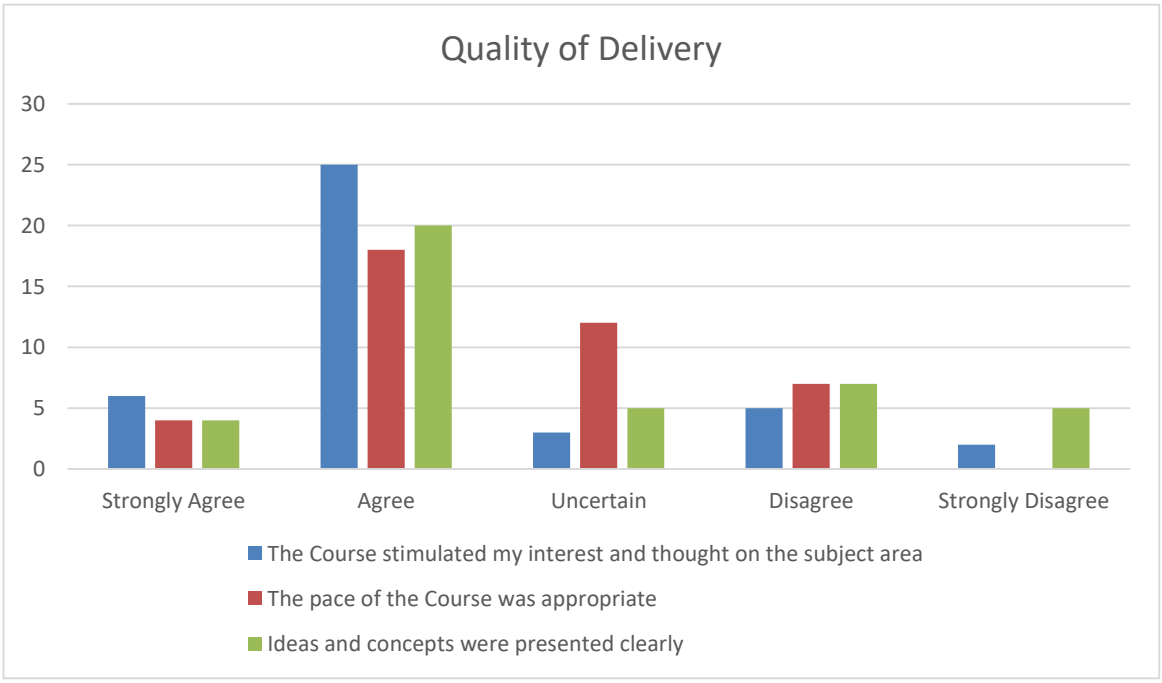
Dr. Muhammad Imam Ulu Has

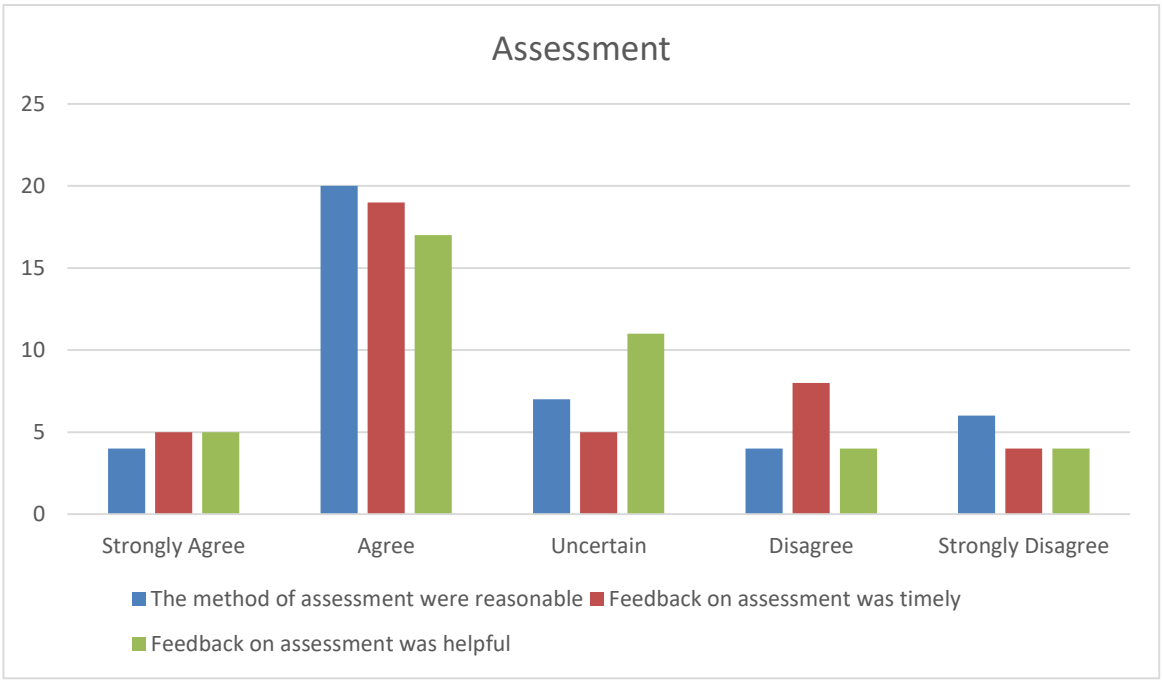


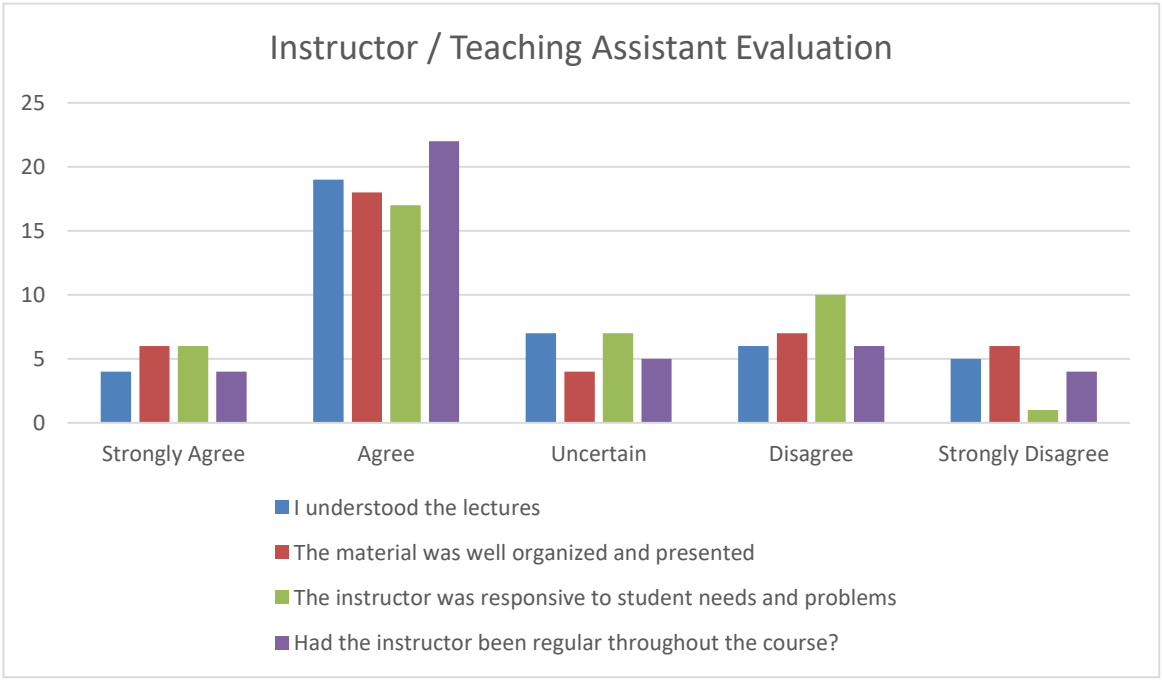

Student Contribution
25
20
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I participated actively in the Course
I think I have made progress in this Course

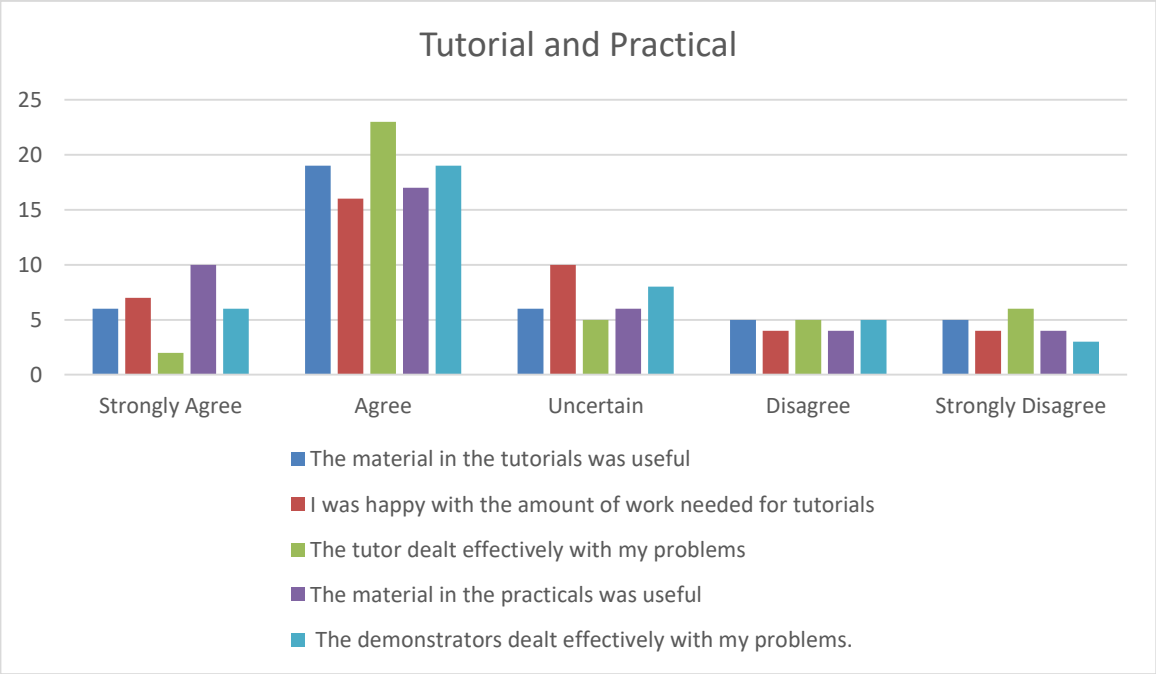

Learning Environment and Teaching Methods
20
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I think the Course was well structured to achieve the learning outcomes (there was a good balance of lectures, tutorials,
The learning and teaching methods encouraged participation
The overall environment in the class was conducive to learning
Classrooms were satisfactory


Learning Resources
30
25
20
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.
Recommended reading Books etc. were relevant and appropriate
The provision of learning resources in the library was adequate and appropriate
The provision of learning resources on the Web was adequate and appropriate (if relevant)


Quality of Delivery
30
25
20
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
The pace of the Course was appropriate
Ideas and concepts were presented clearly

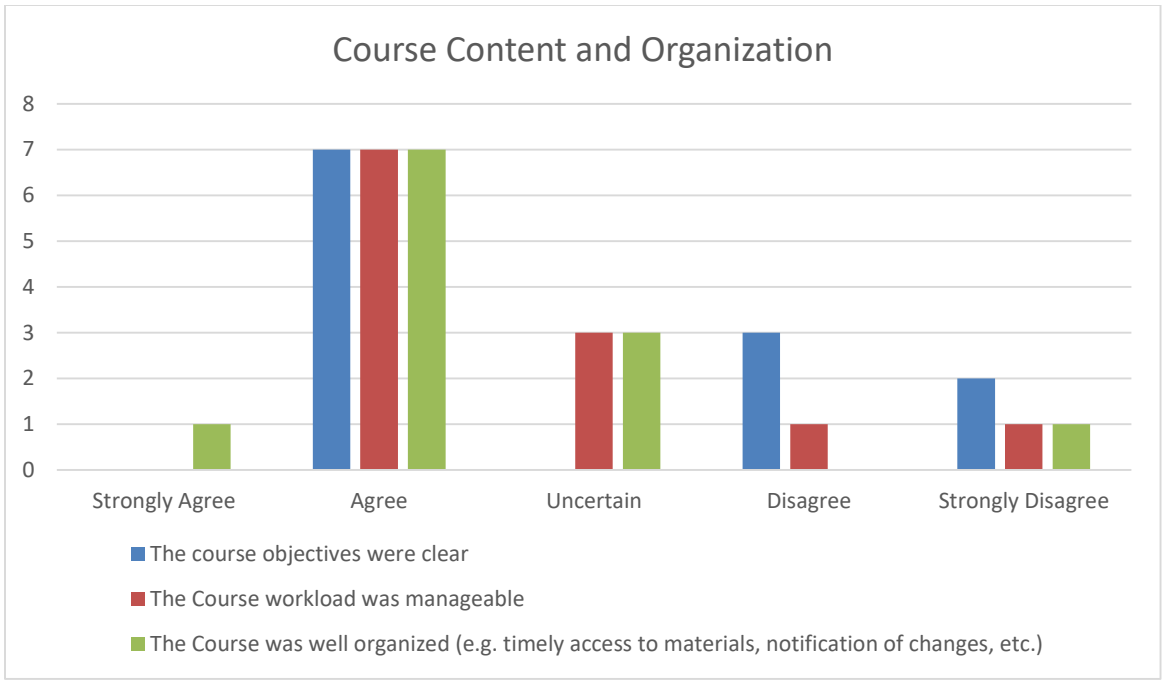

Assessment
25
20
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful

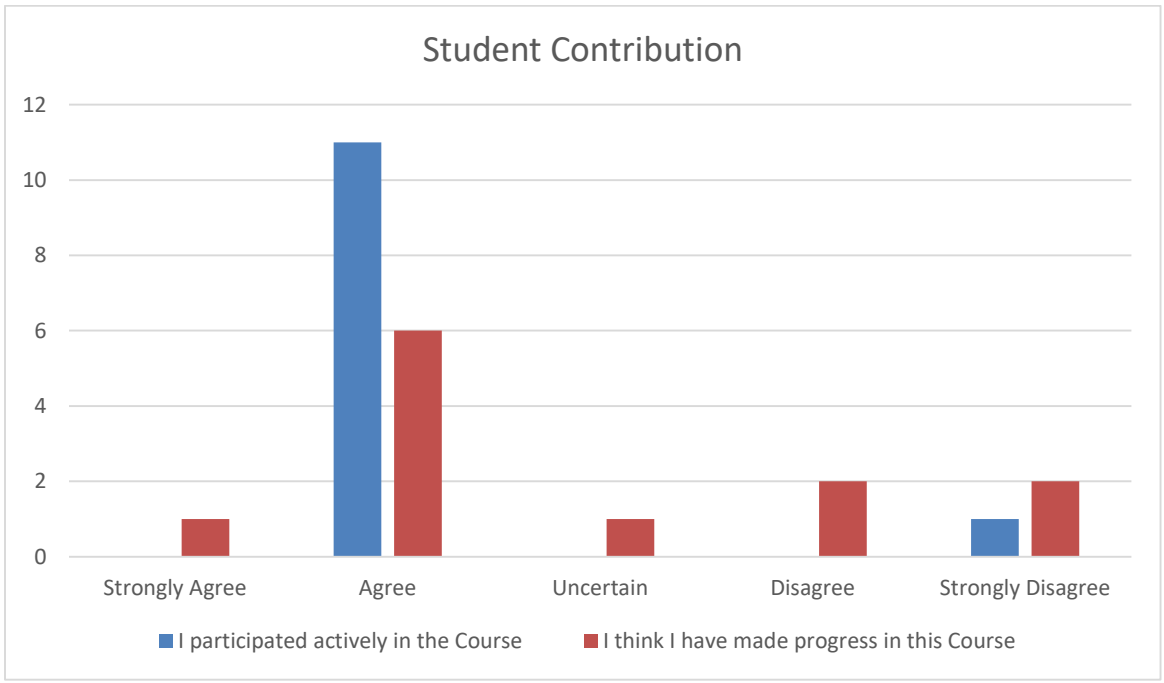

Instructor / Teaching Assistant Evaluation
25
20
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I understood the lectures
The material was well organized and presented
The instructor was responsive to student needs and problems
Had the instructor been regular throughout the course?

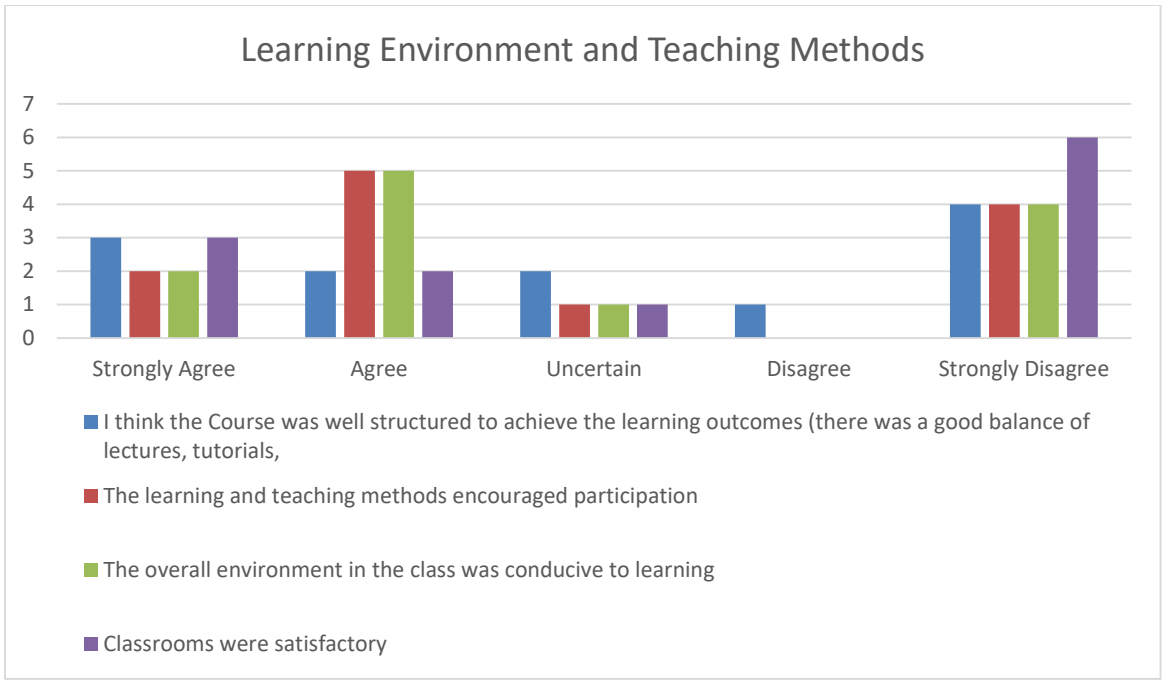


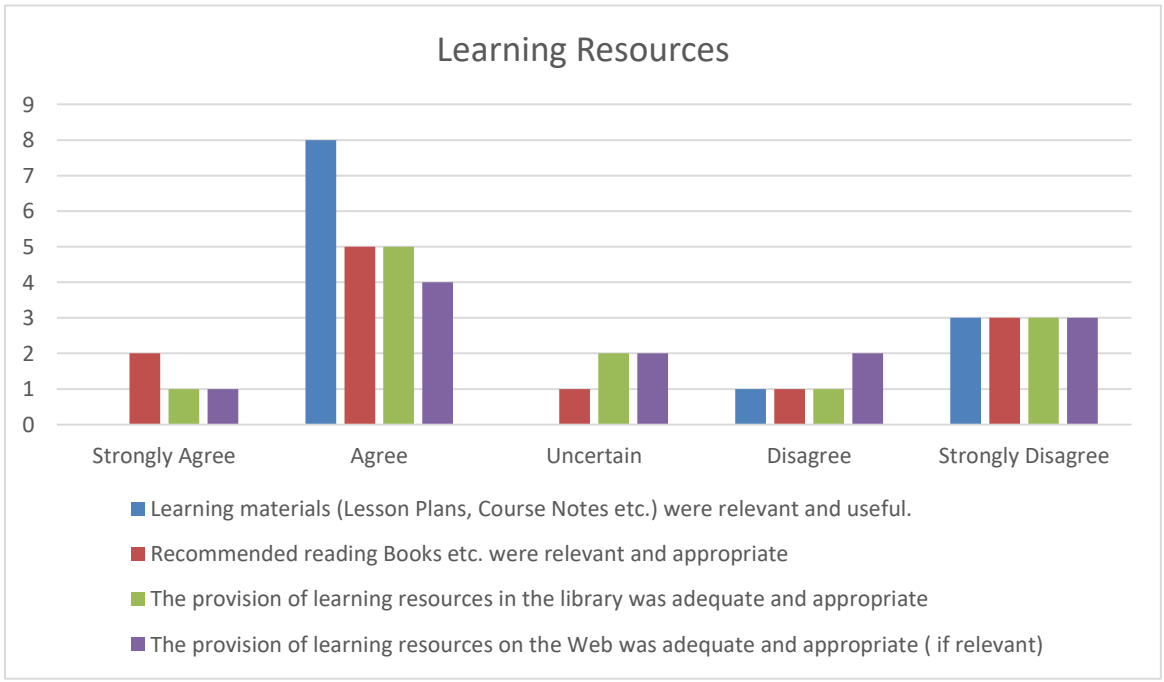
Dr. Muhammad Zubair

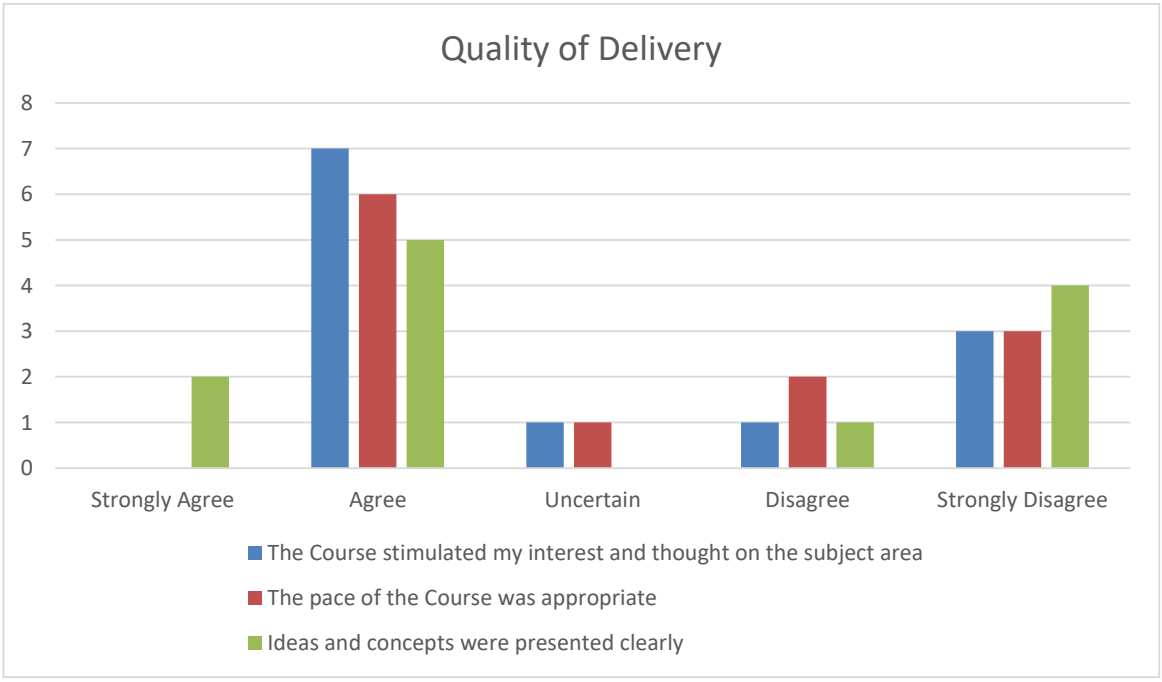
Data Communication and Computer Networks

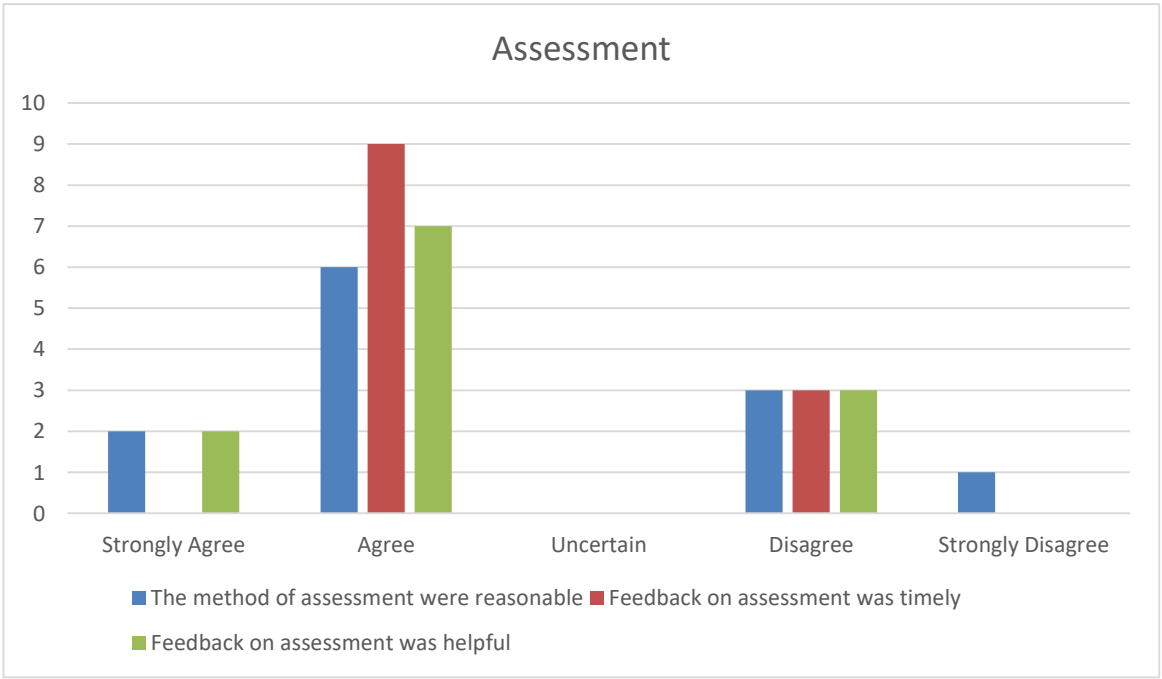

Course Content and Organization
8
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The course objectives were clear
The Course workload was manageable
The Course was well organized (e.g. timely access to materials, notification of changes, etc.)

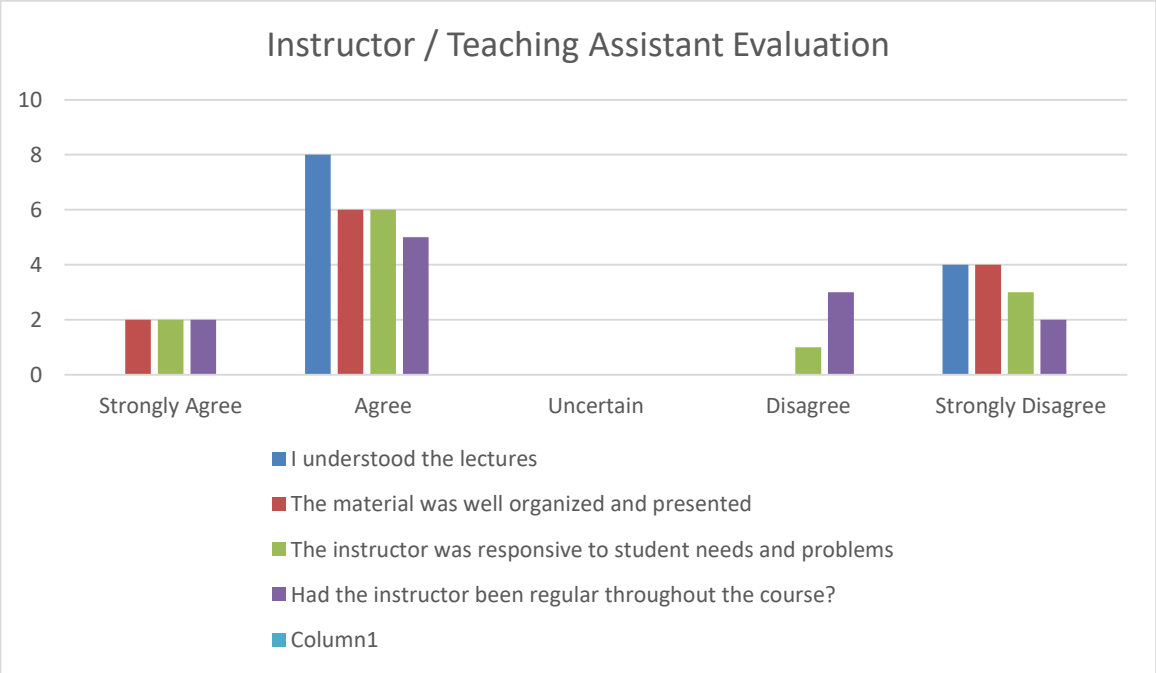

Student Contribution
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I participated actively in the Course
I think I have made progress in this Course

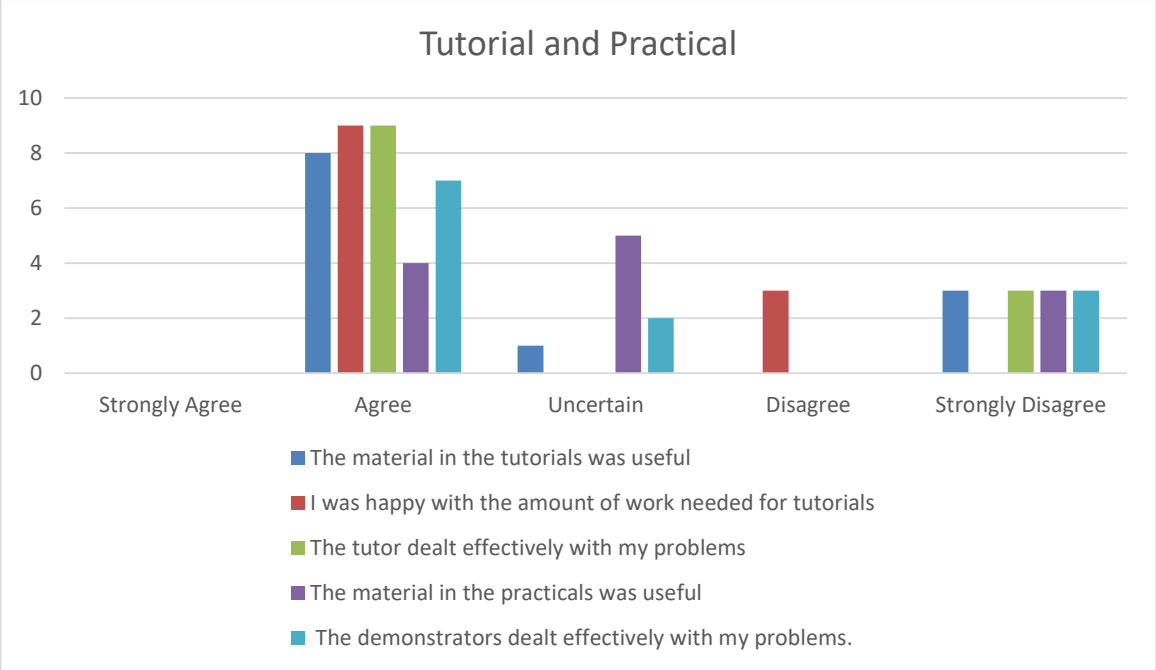

Learning Environment and Teaching Methods
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I think the Course was well structured to achieve the learning outcomes (there was a good balance of lectures, tutorials,
The learning and teaching methods encouraged participation
The overall environment in the class was conducive to learning
Classrooms were satisfactory


Learning Resources
9
8
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.
Recommended reading Books etc. were relevant and appropriate
The provision of learning resources in the library was adequate and appropriate
The provision of learning resources on the Web was adequate and appropriate (if relevant)


Quality of Delivery
8
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
The pace of the Course was appropriate
Ideas and concepts were presented clearly

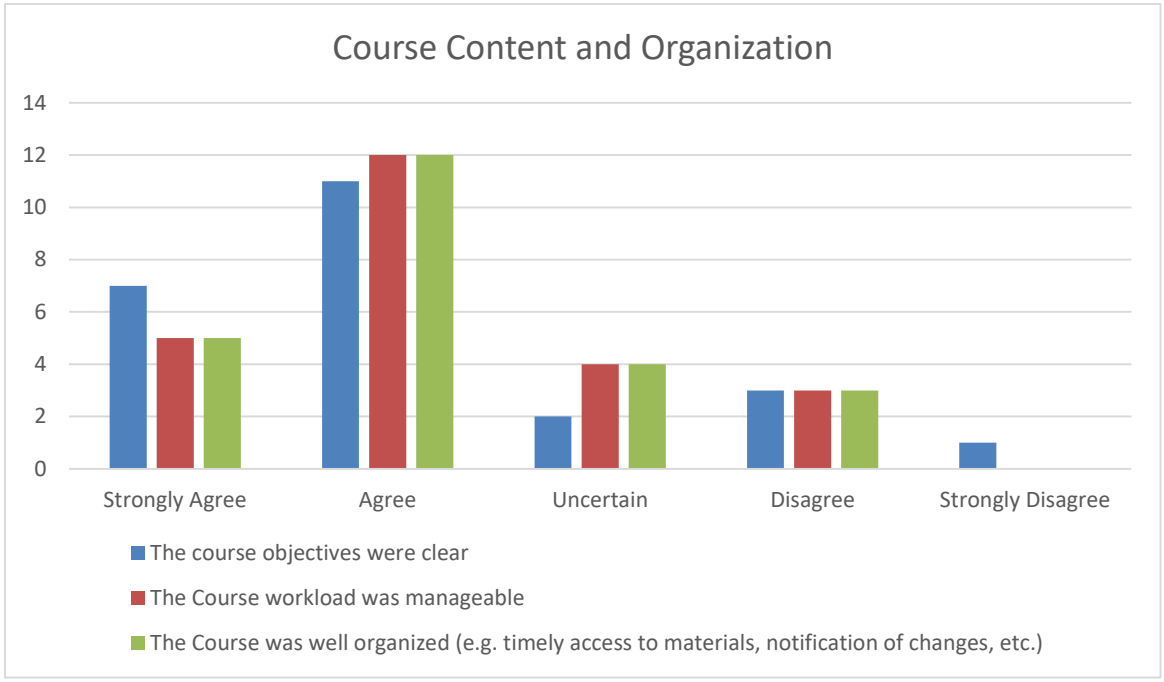

Assessment
10
9
8
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful

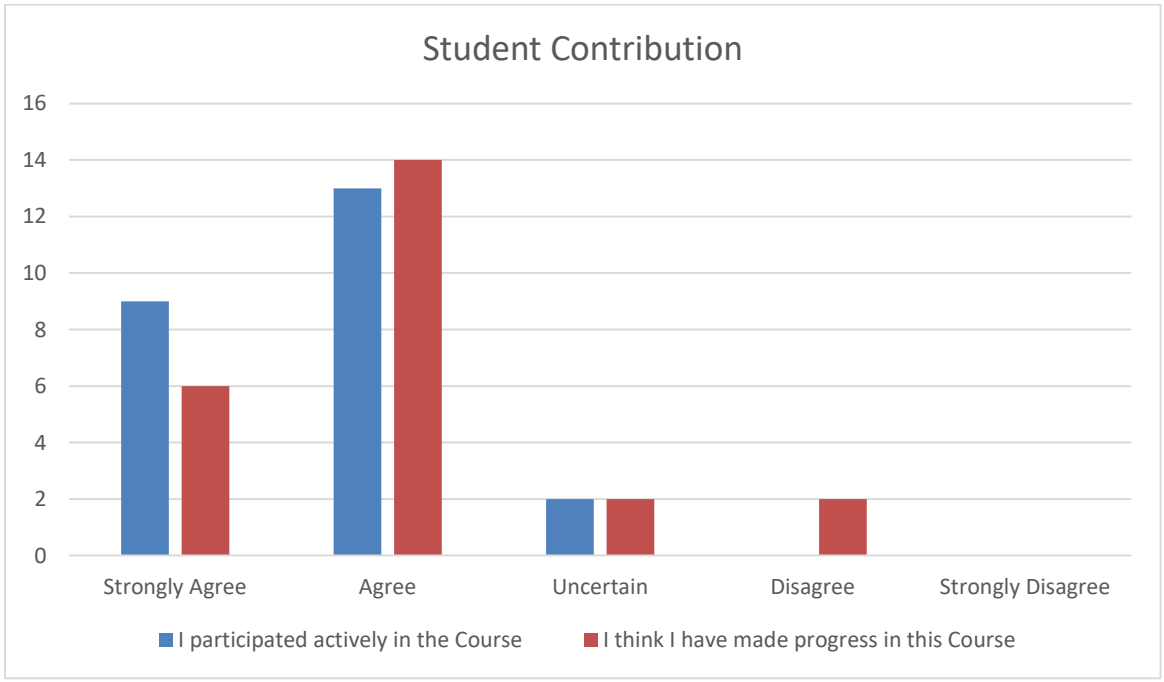

Instructor / Teaching Assistant Evaluation
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I understood the lectures
The material was well organized and presented
The instructor was responsive to student needs and problems
Had the instructor been regular throughout the course?
Column1

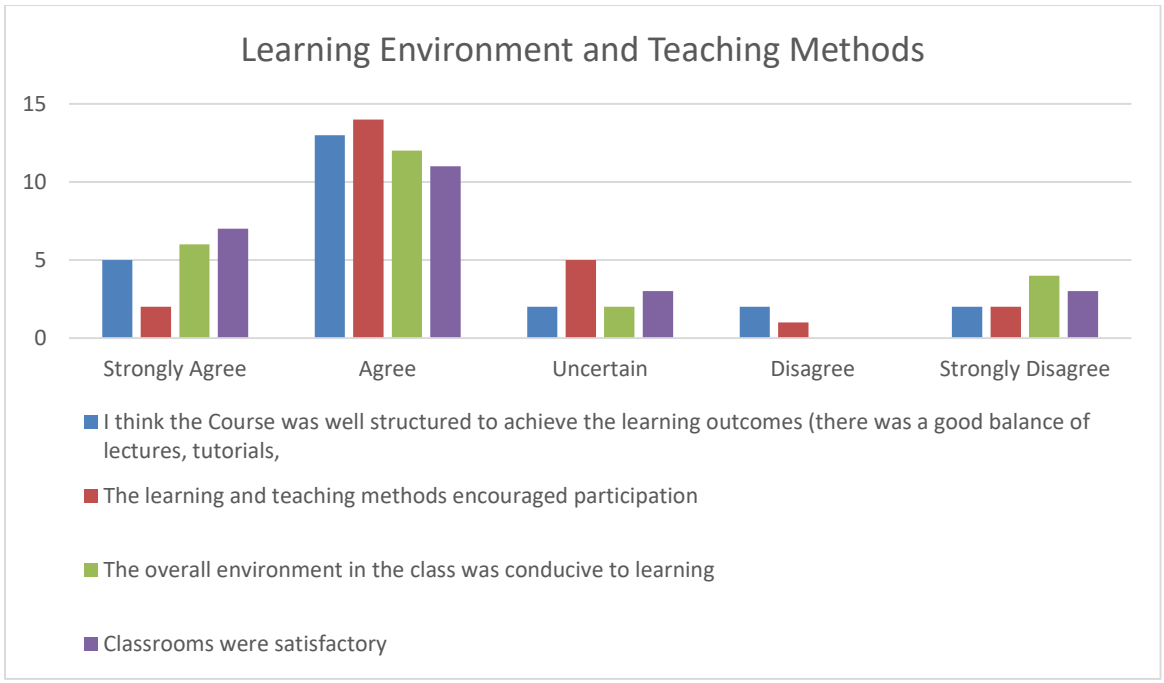

Tutorial and Practical
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The material in the tutorials was useful
I was happy with the amount of work needed for tutorials
The tutor dealt effectively with my problems
The material in the practicals was useful
The demonstrators dealt effectively with my problems.

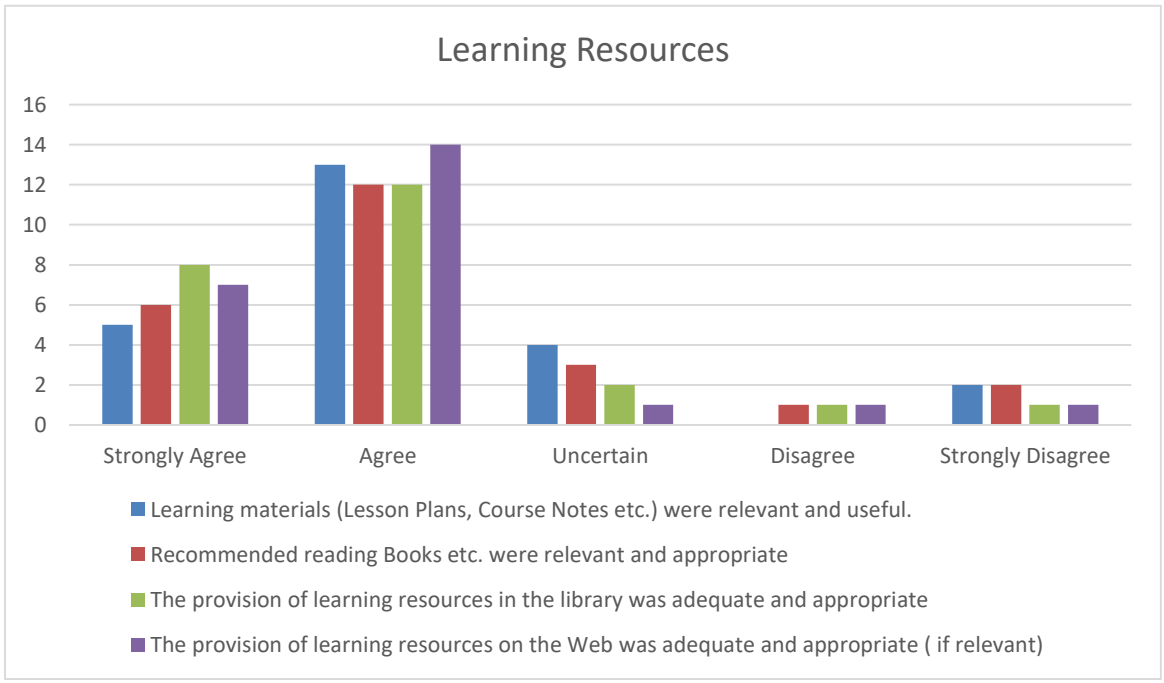
Mr. Tariq Usman

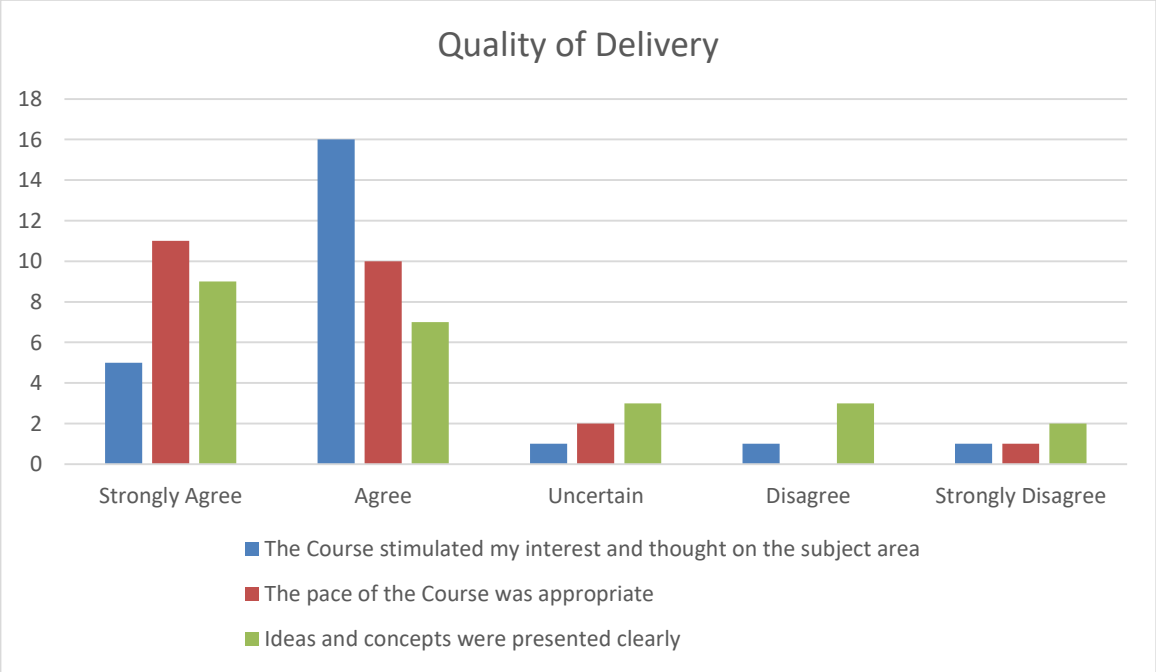
Design and Analysis of Algorithms

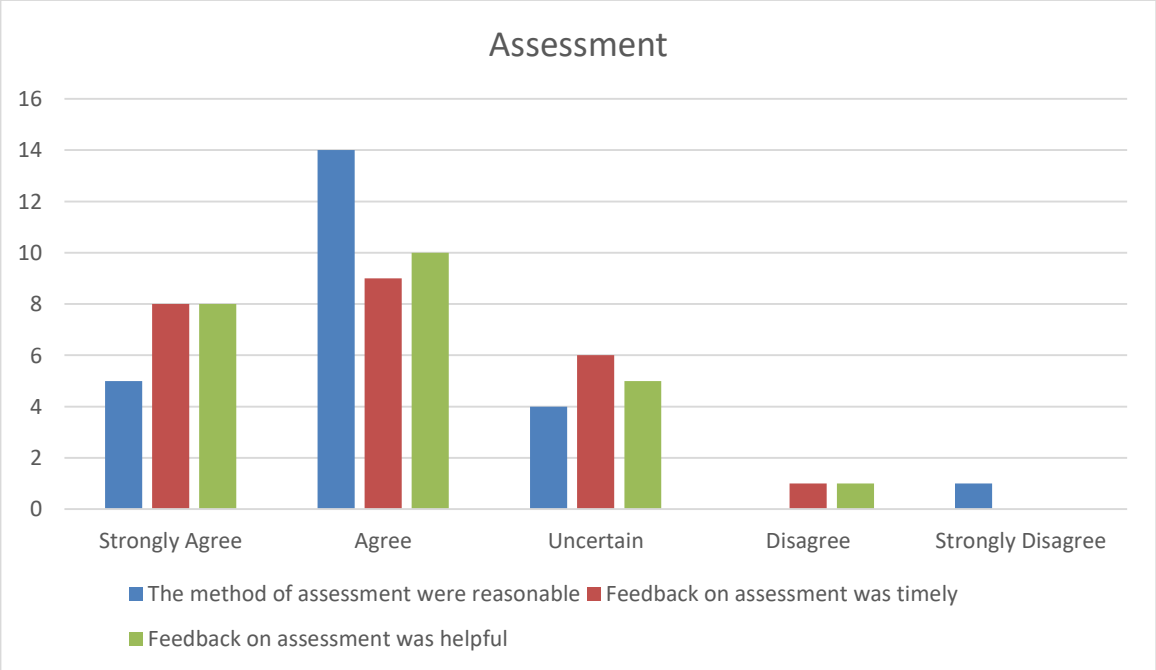


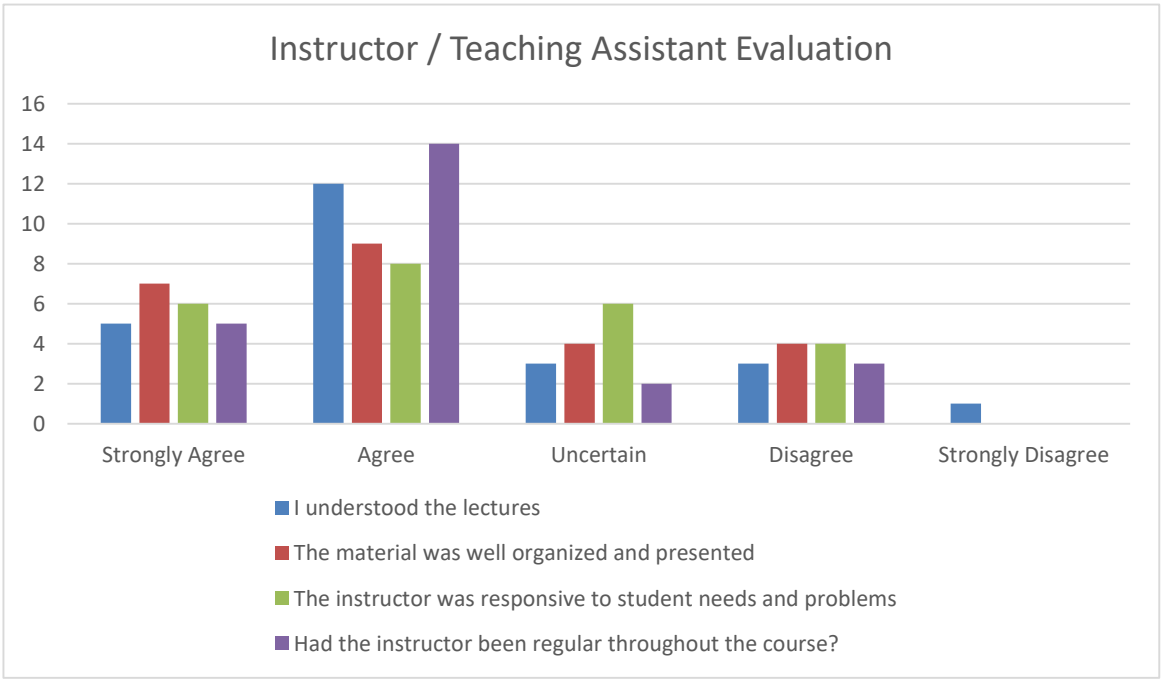


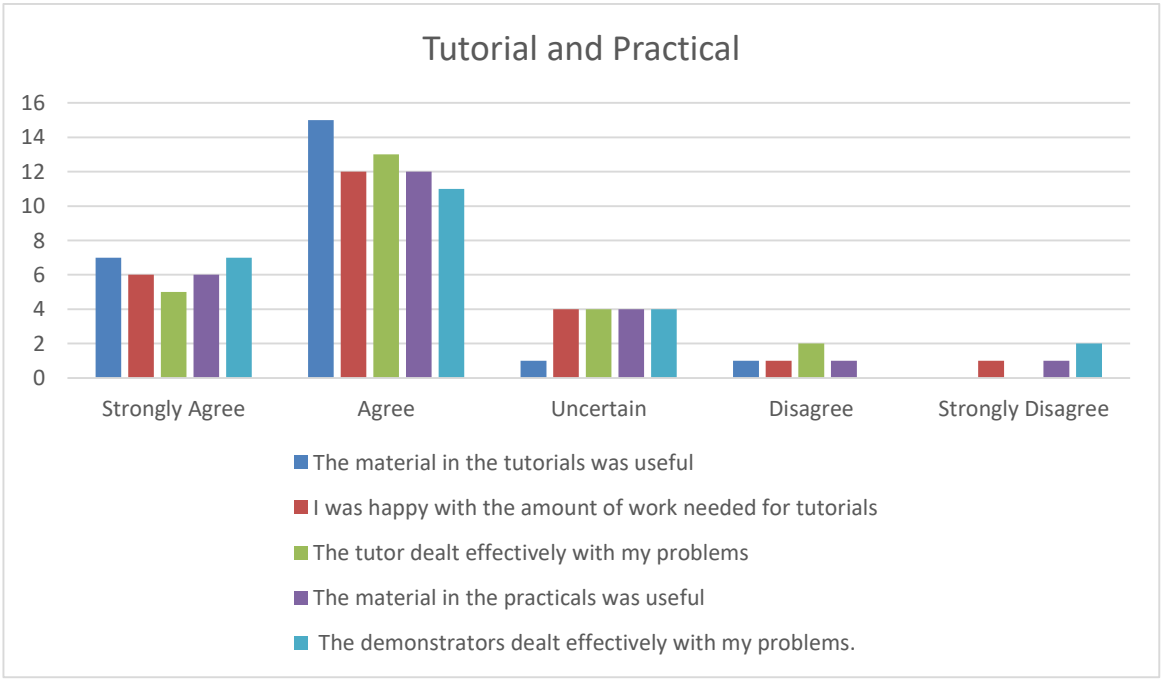

Learning Environment and Teaching Methods
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I think the Course was well structured to achieve the learning outcomes (there was a good balance of lectures, tutorials,
The learning and teaching methods encouraged participation
The overall environment in the class was conducive to learning
Classrooms were satisfactory


Learning Resources
16
14
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.
Recommended reading Books etc. were relevant and appropriate
The provision of learning resources in the library was adequate and appropriate
The provision of learning resources on the Web was adequate and appropriate (if relevant)


Quality of Delivery
18
16
14
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
The pace of the Course was appropriate
Ideas and concepts were presented clearly

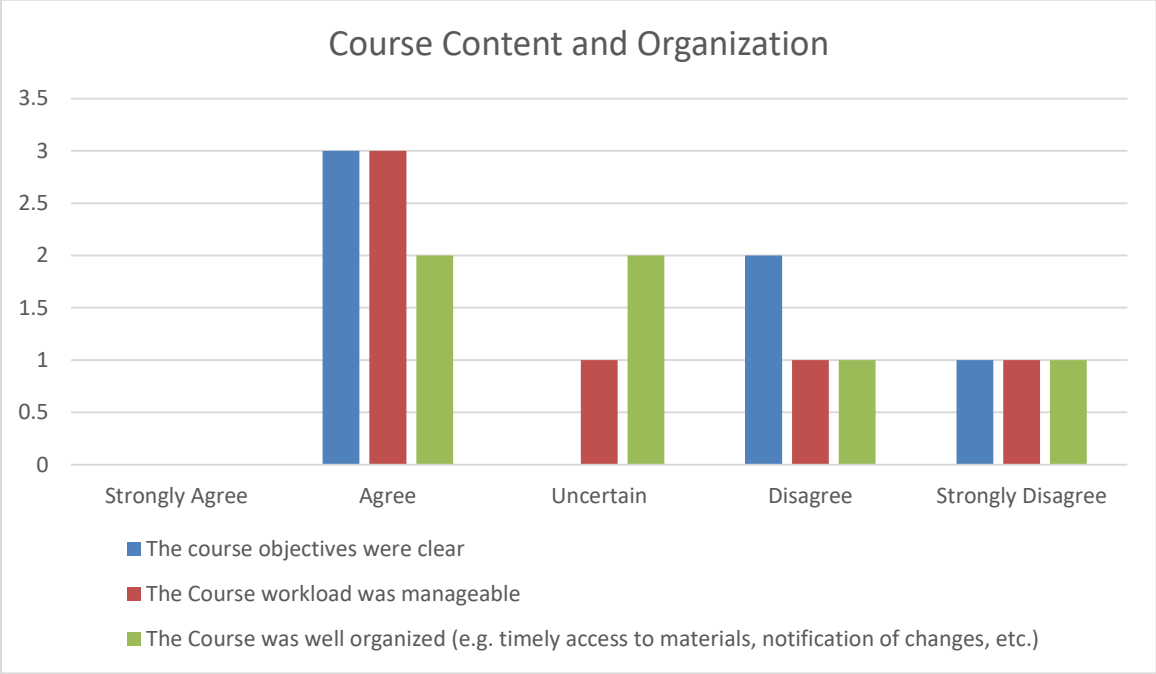

Assessment
16
14
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful

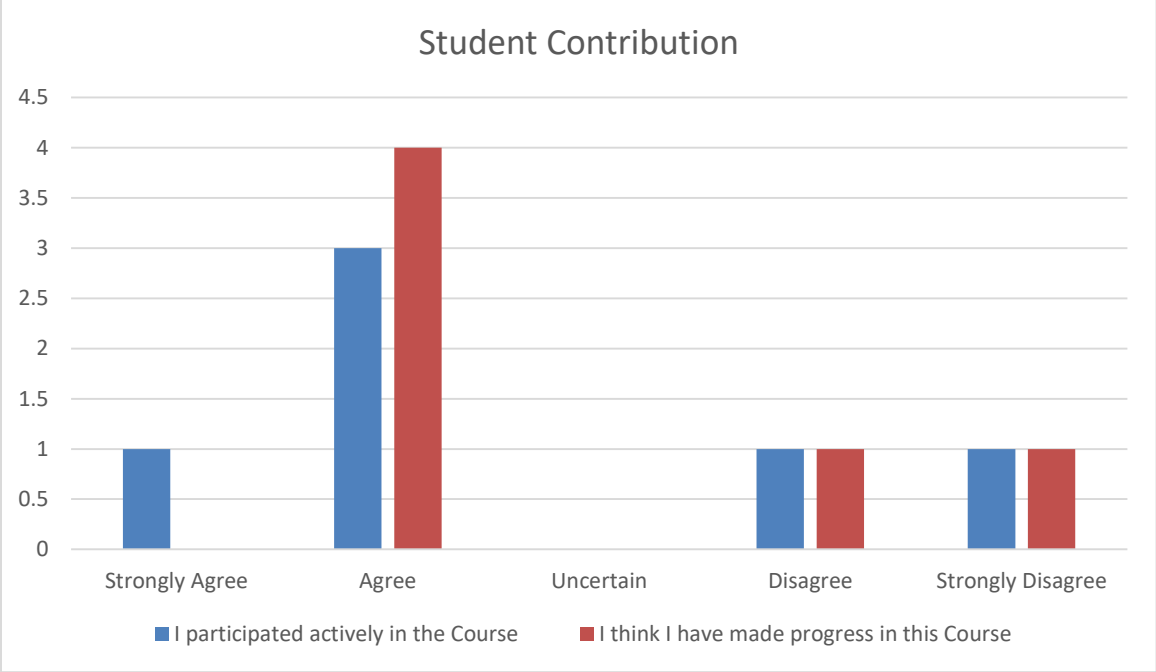

Instructor / Teaching Assistant Evaluation
16
14
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I understood the lectures
The material was well organized and presented
The instructor was responsive to student needs and problems
Had the instructor been regular throughout the course?

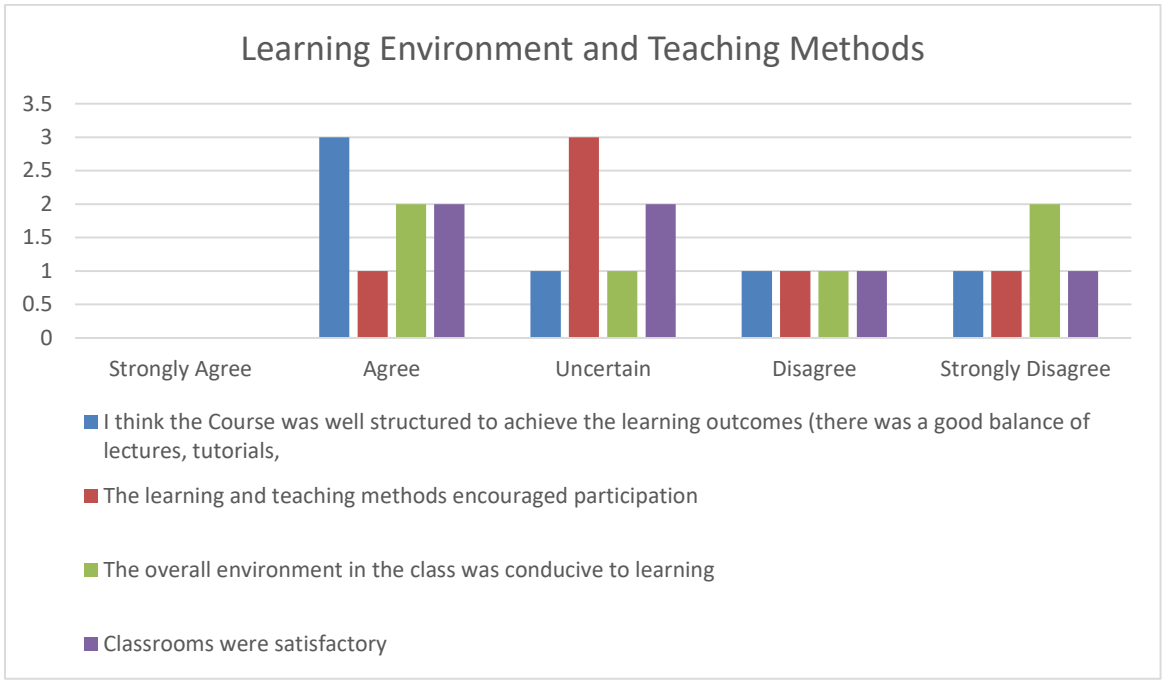

Tutorial and Practical
16
14
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The material in the tutorials was useful
I was happy with the amount of work needed for tutorials
The tutor dealt effectively with my problems
The material in the practicals was useful
The demonstrators dealt effectively with my problems.

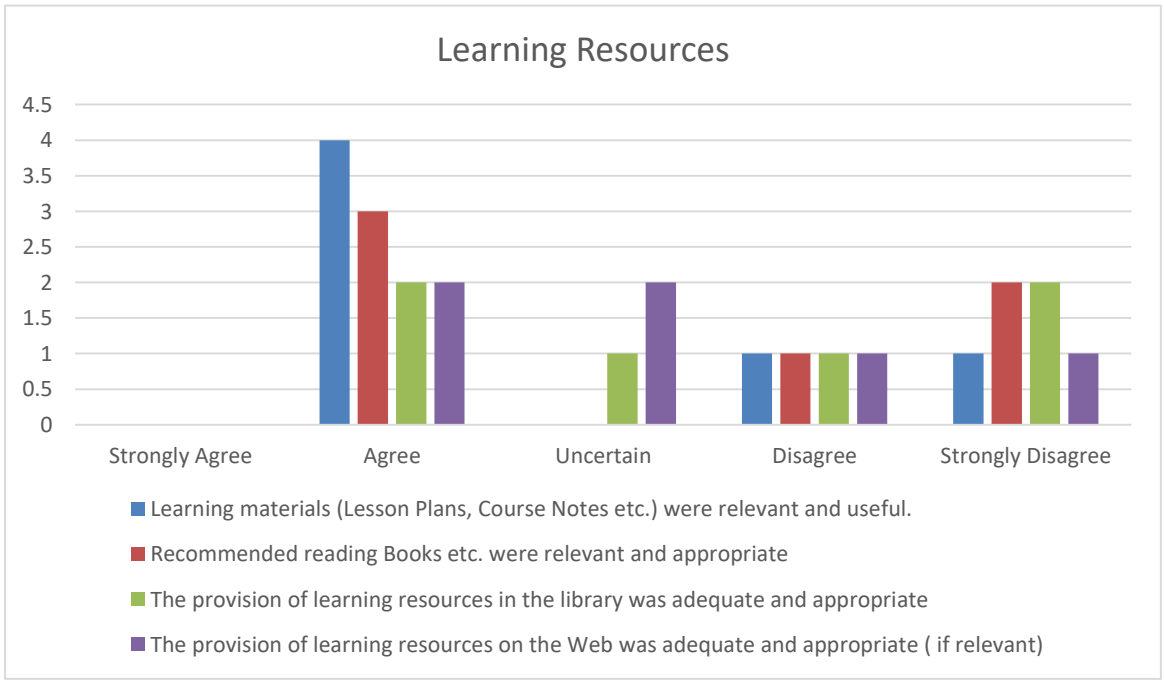
Mr. Tariq Usman

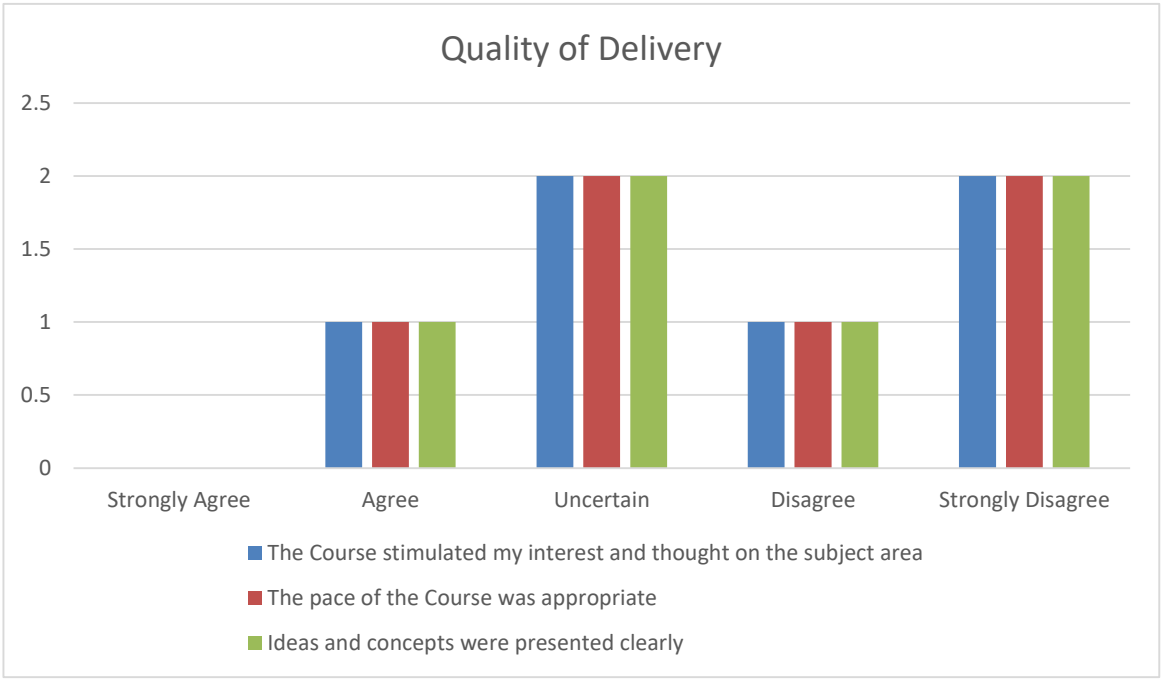
Data Structures and Algorithms

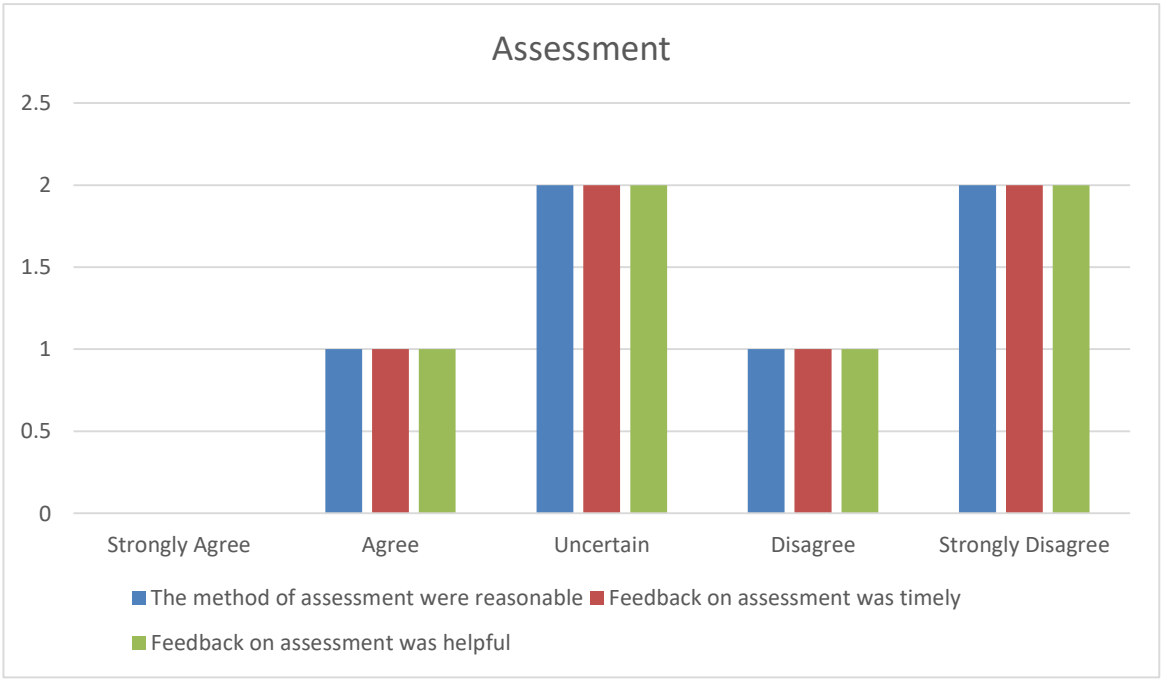


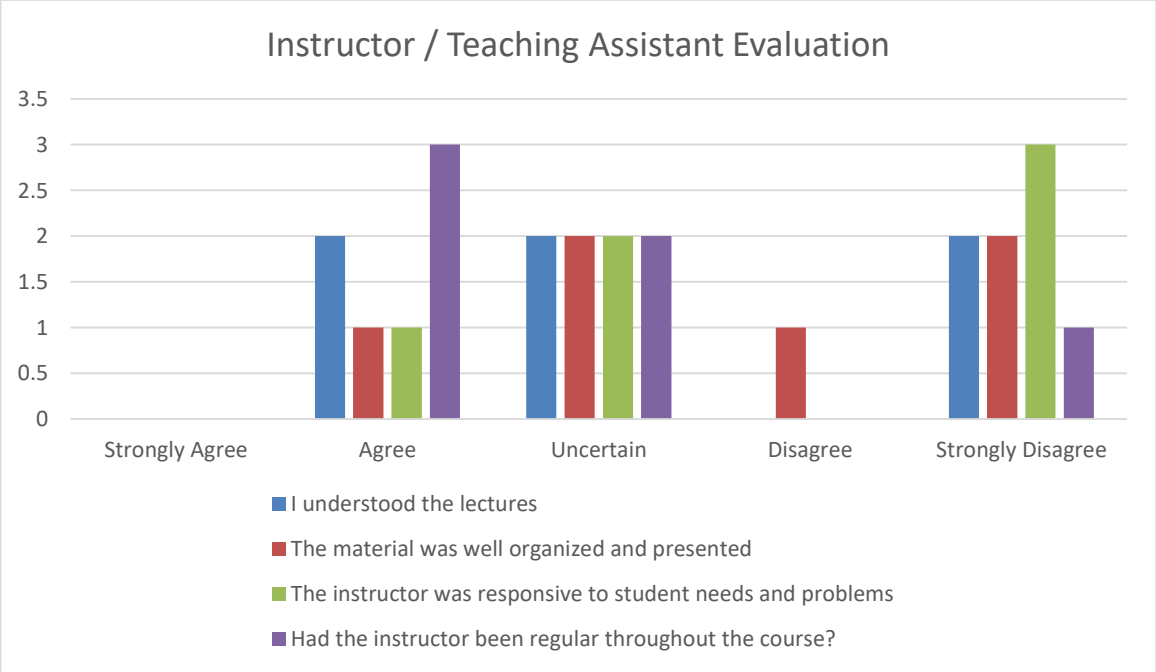


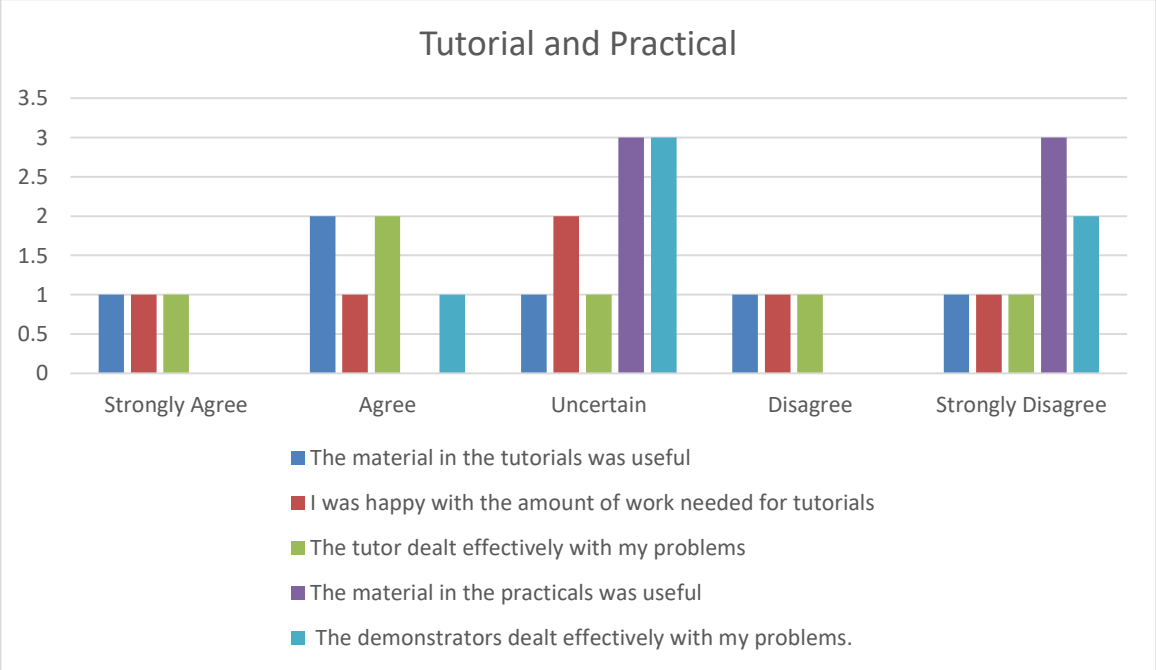

Learning Environment and Teaching Methods
3.5
3
2.5
2
1.5
1
0.5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I think the Course was well structured to achieve the learning outcomes (there was a good balance of lectures, tutorials,
The learning and teaching methods encouraged participation
The overall environment in the class was conducive to learning
Classrooms were satisfactory


Learning Resources
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.
Recommended reading Books etc. were relevant and appropriate
The provision of learning resources in the library was adequate and appropriate
The provision of learning resources on the Web was adequate and appropriate (if relevant)


Quality of Delivery
2.5
2
1.5
1
0.5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
The pace of the Course was appropriate
Ideas and concepts were presented clearly


Assessment
2.5
2
1.5
1
0.5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful


Instructor / Teaching Assistant Evaluation
3.5
3
2.5
2
1.5
1
0.5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I understood the lectures
The material was well organized and presented
The instructor was responsive to student needs and problems
Had the instructor been regular throughout the course?


Tutorial and Practical
3.5
3
2.5
2
1.5
1
0.5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The material in the tutorials was useful
I was happy with the amount of work needed for tutorials
The tutor dealt effectively with my problems
The material in the practicals was useful
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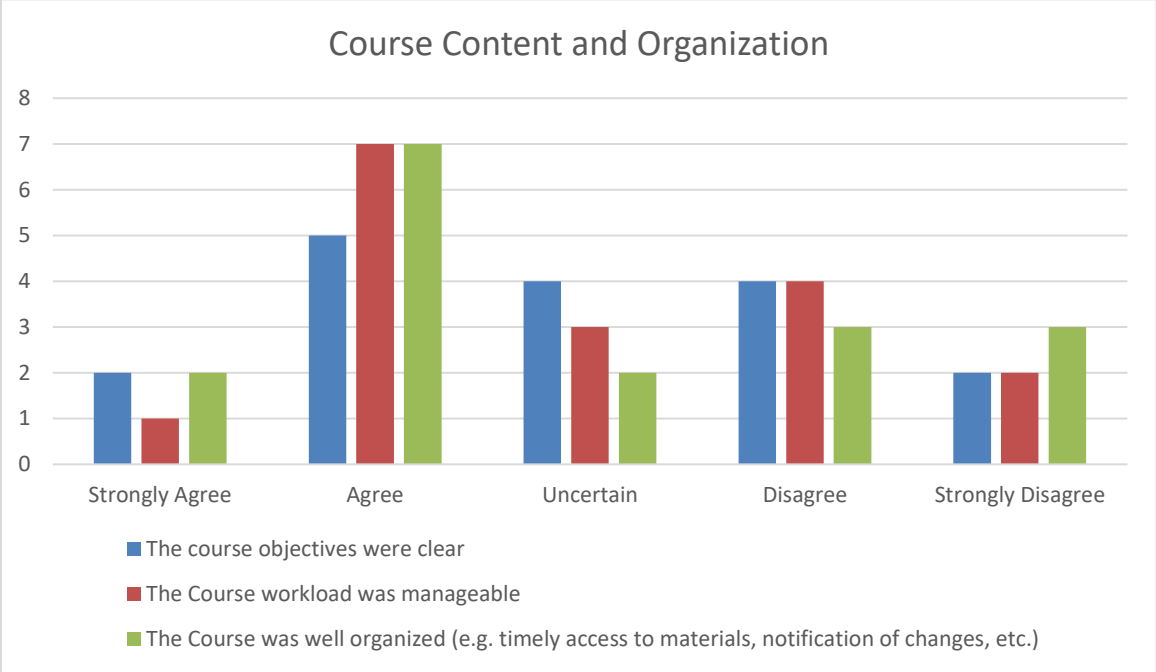
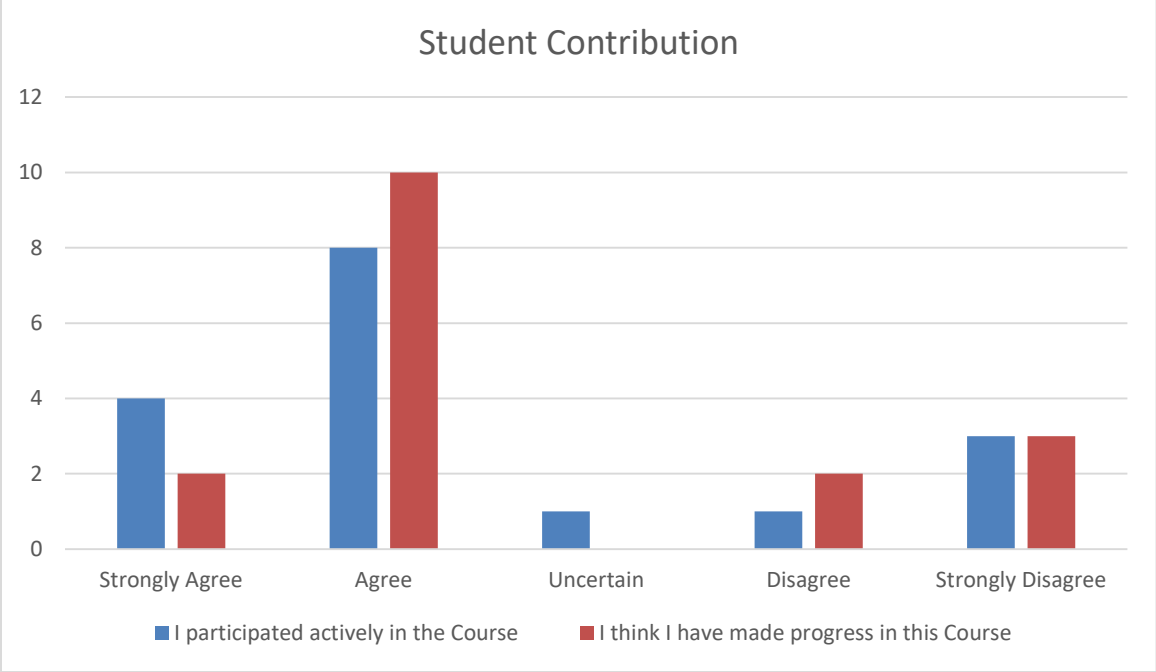
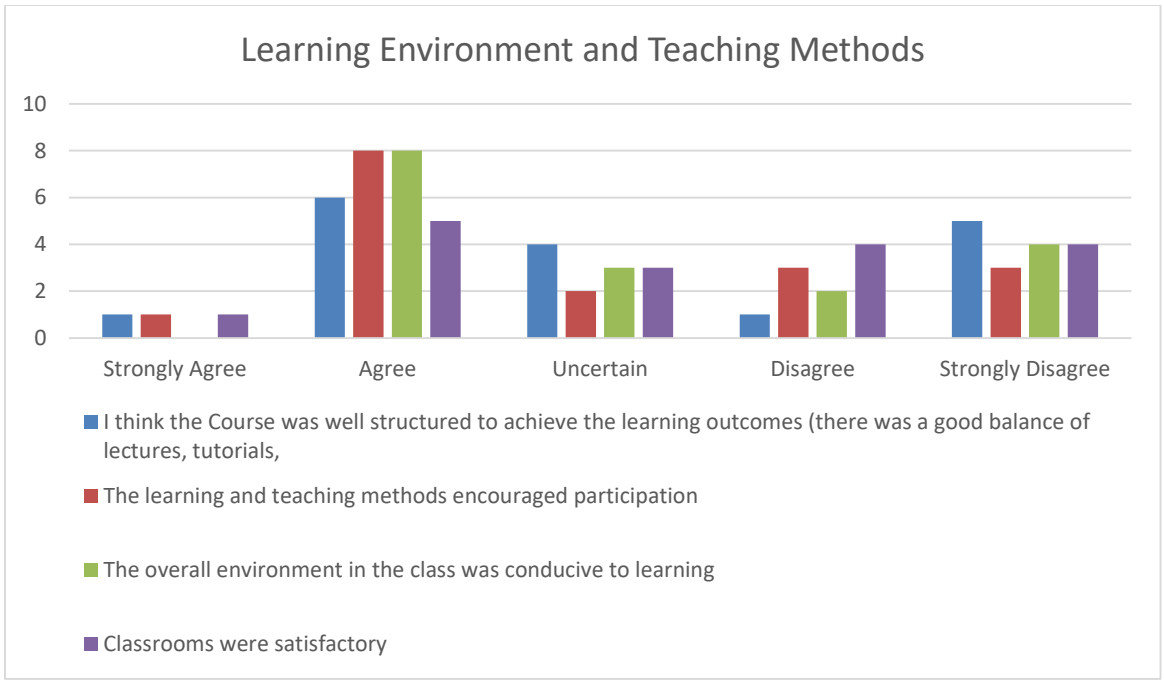
Mr. Tariq Usman

Introduction to Computer Programming






Learning Environment and Teaching Methods
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I think the Course was well structured to achieve the learning outcomes (there was a good balance of lectures, tutorials,
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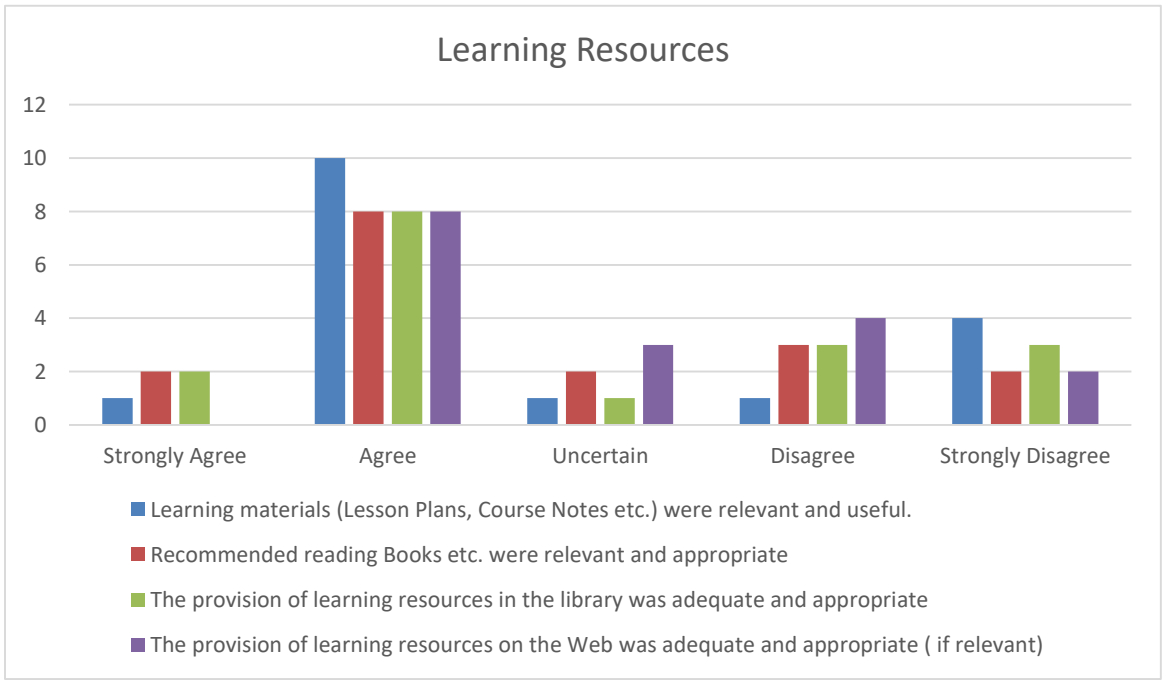
Classrooms were satisfactory


Learning Resources
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.
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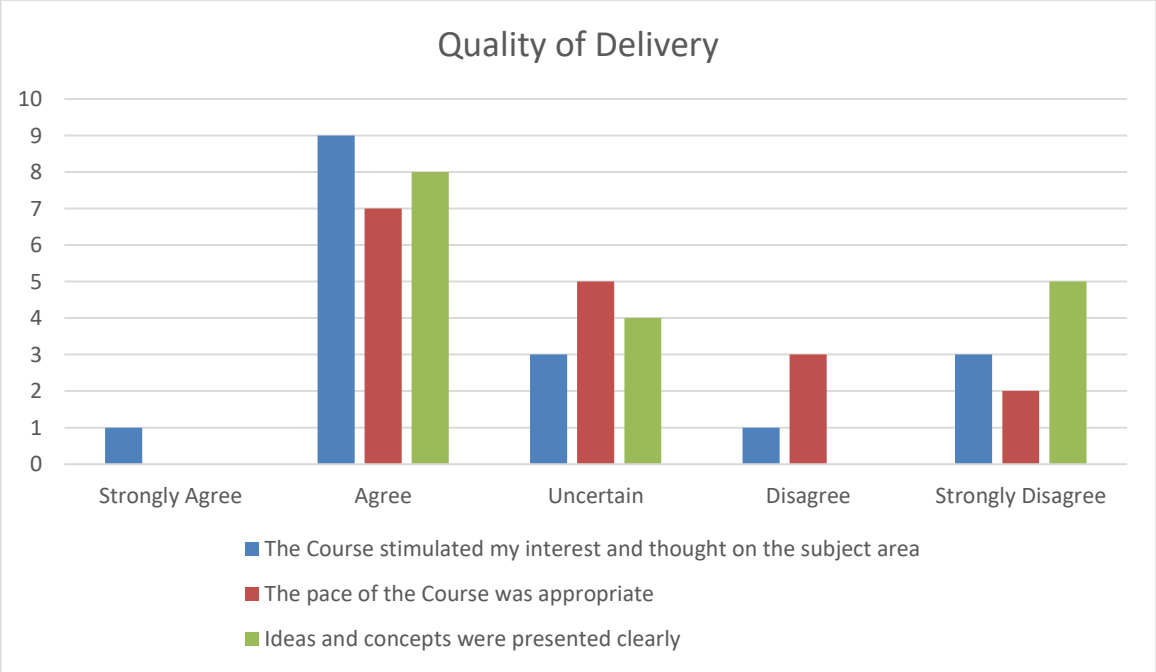
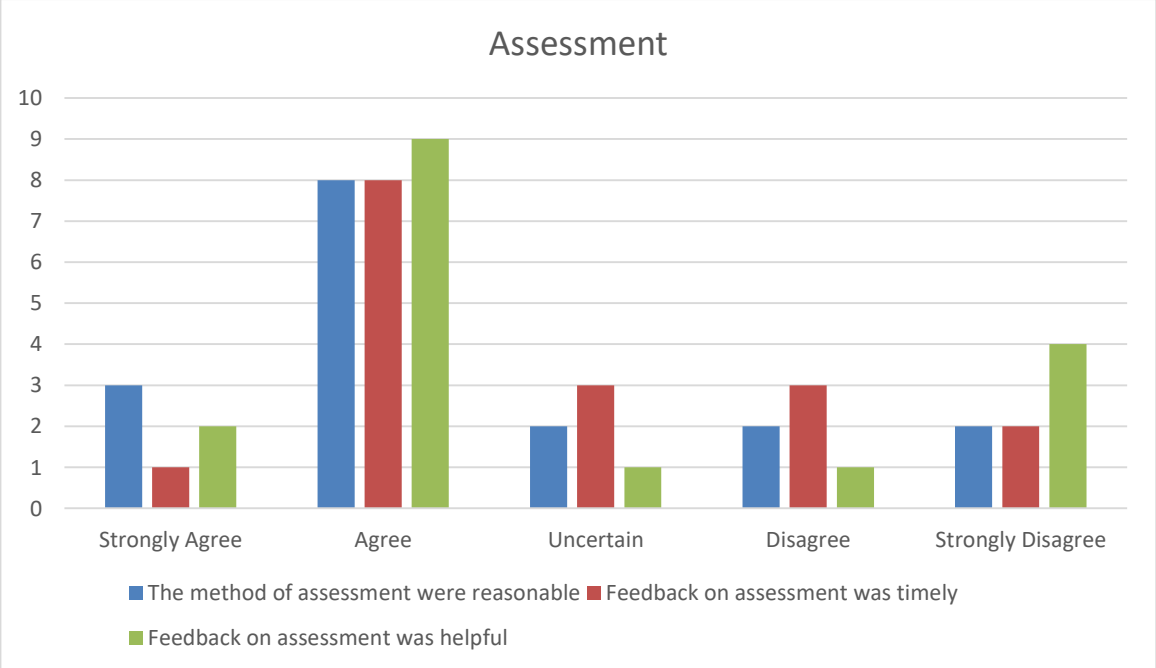
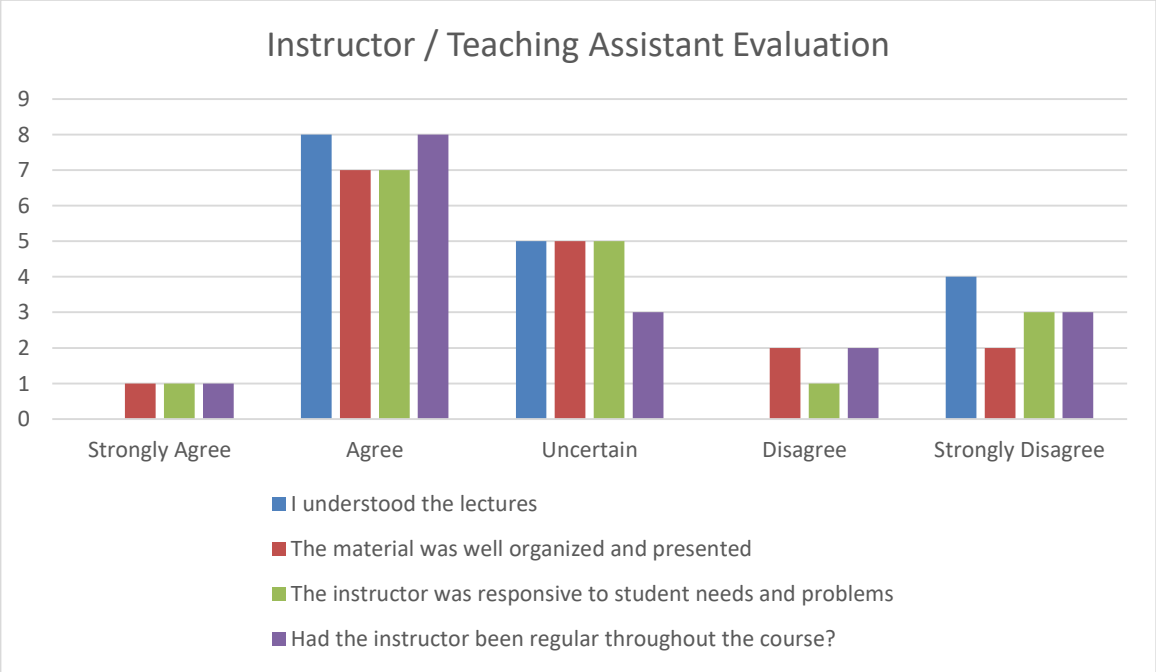

Quality of Delivery
10
9
8
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
The pace of the Course was appropriate
Ideas and concepts were presented clearly


Assessment
10
9
8
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful


Instructor / Teaching Assistant Evaluation
9
8
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I understood the lectures
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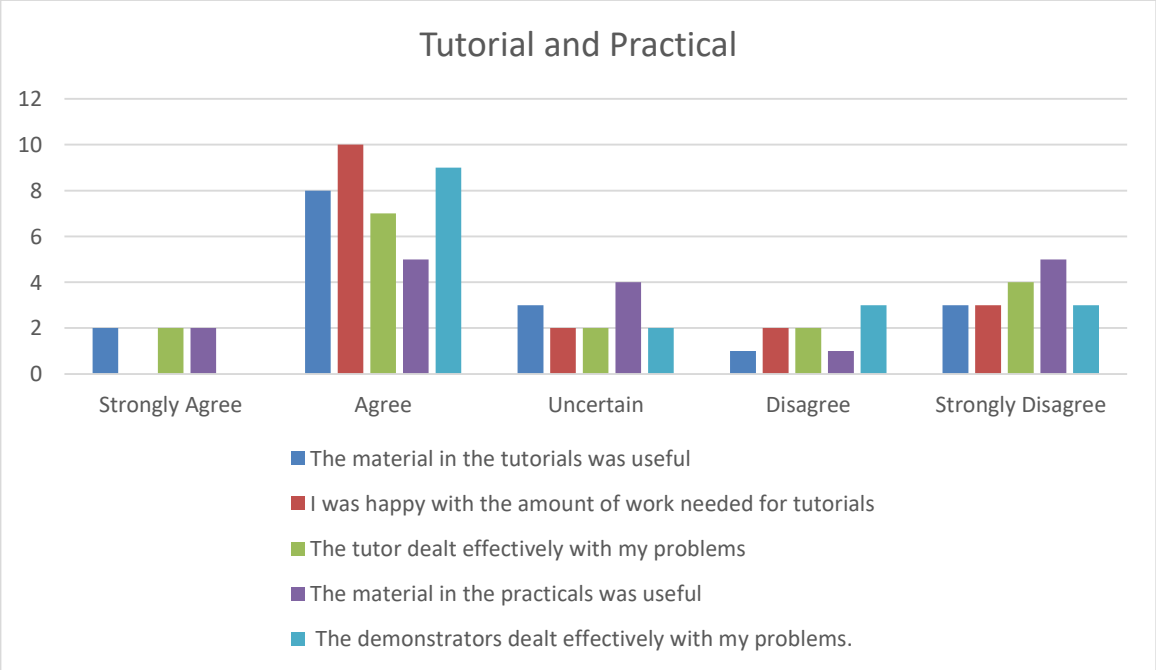
Had the instructor been regular throughout the course?


Tutorial and Practical
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The material in the tutorials was useful
I was happy with the amount of work needed for tutorials
The tutor dealt effectively with my problems
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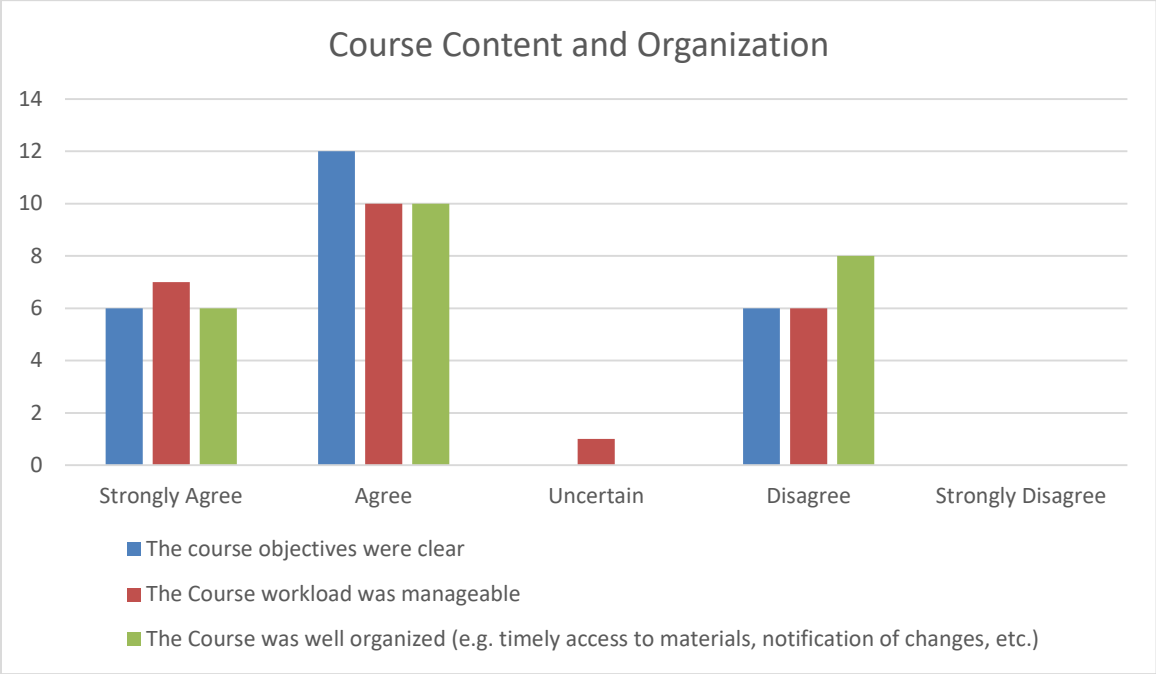
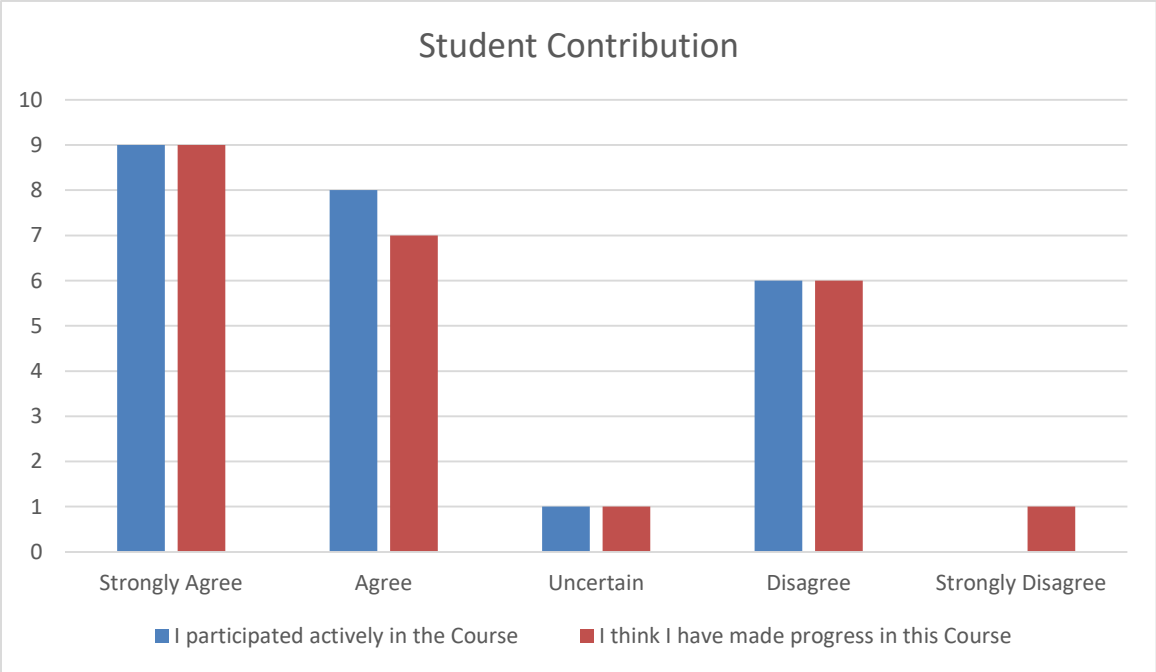
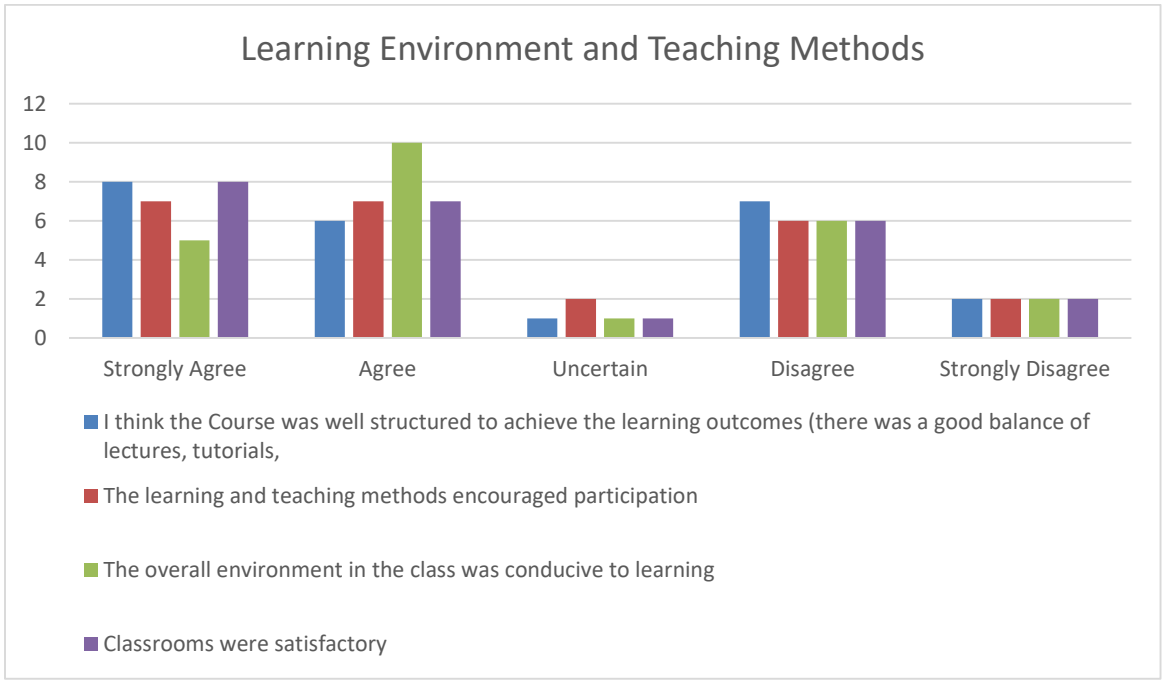
Mr. Arshad Iqbal
Database Systems






Learning Environment and Teaching Methods
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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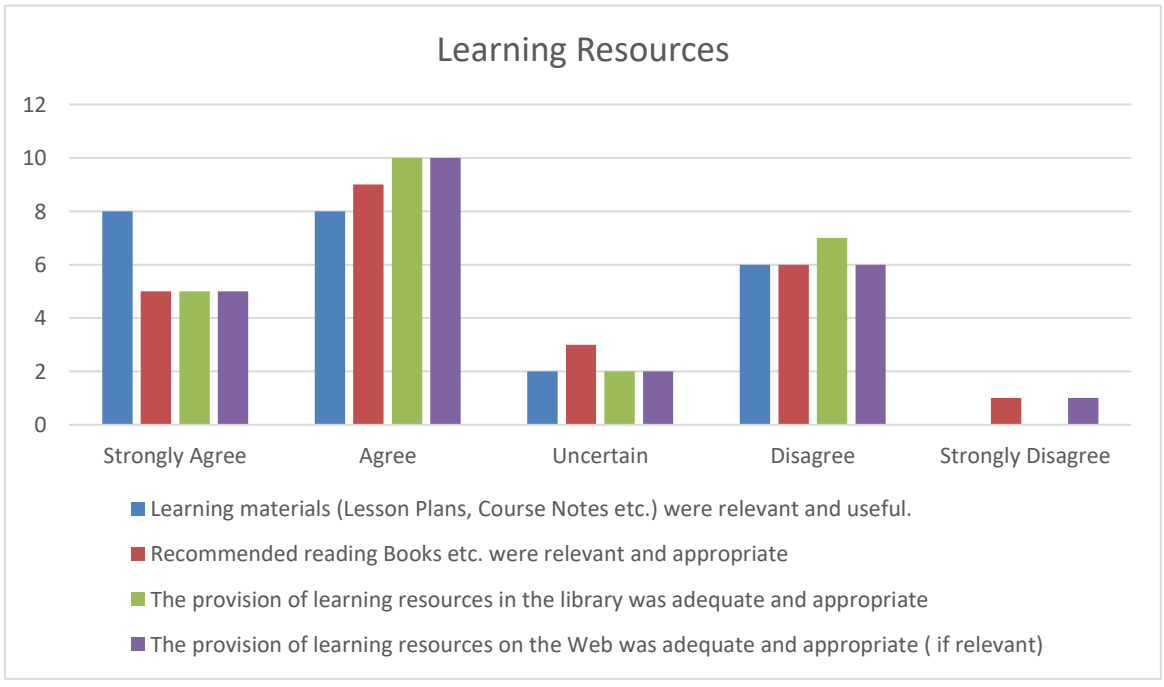
Learning Resources
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
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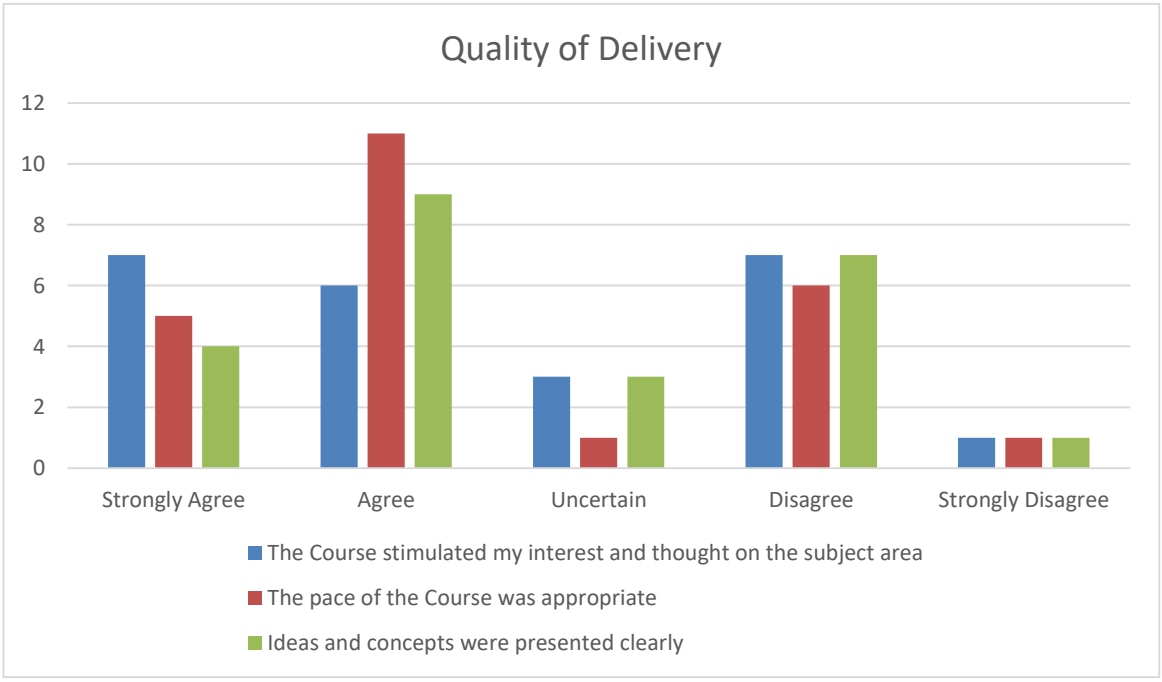
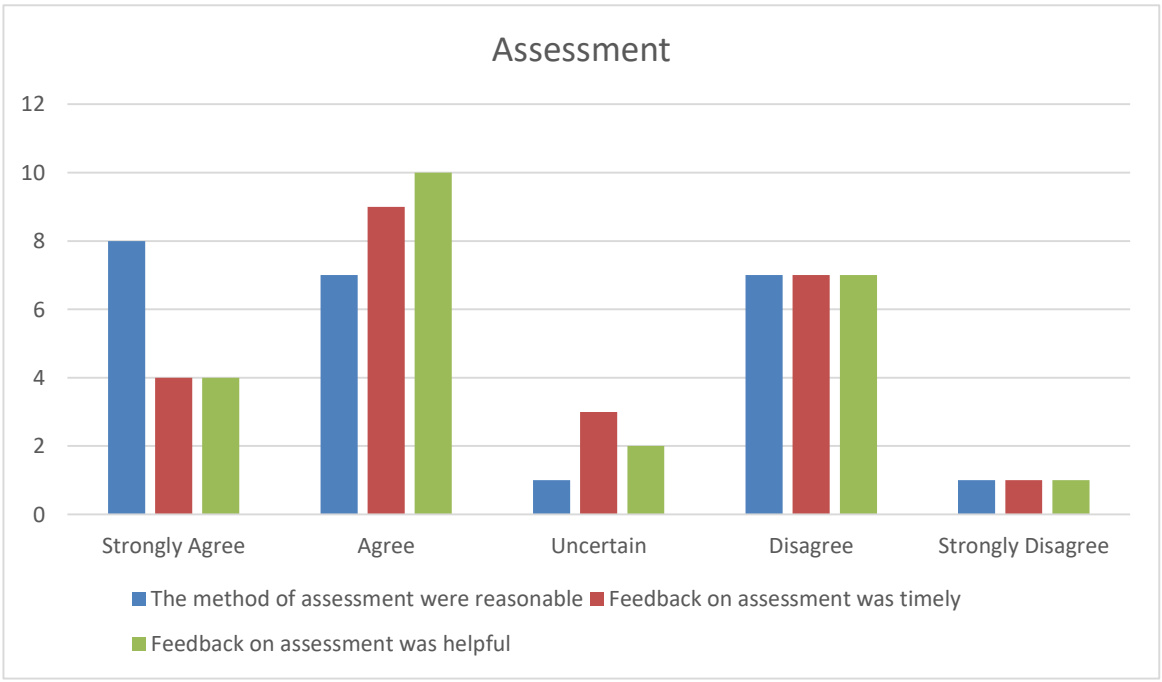
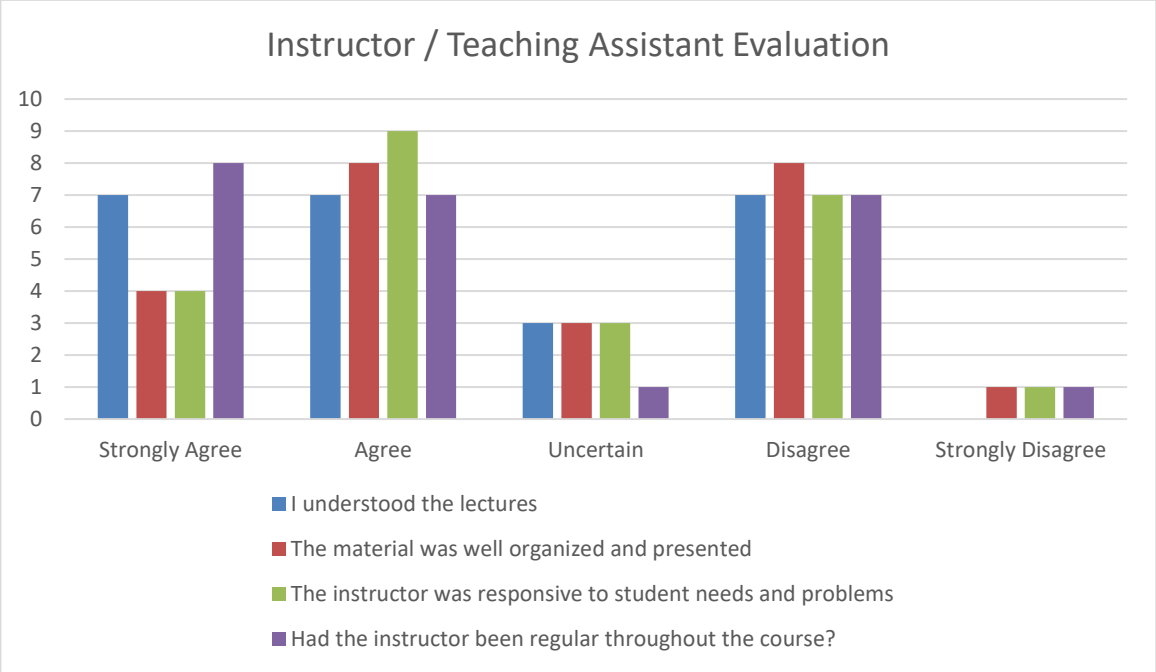

Quality of Delivery
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
The pace of the Course was appropriate
Ideas and concepts were presented clearly


Assessment
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful


Instructor / Teaching Assistant Evaluation
10
9
8
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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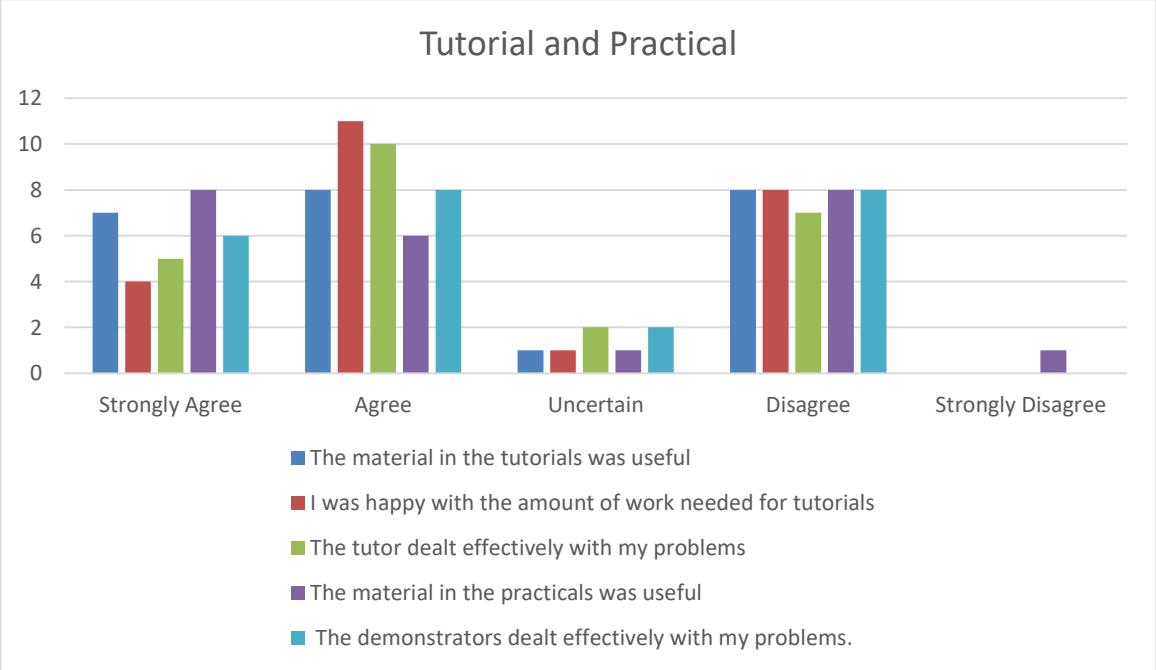
Tutorial and Practical
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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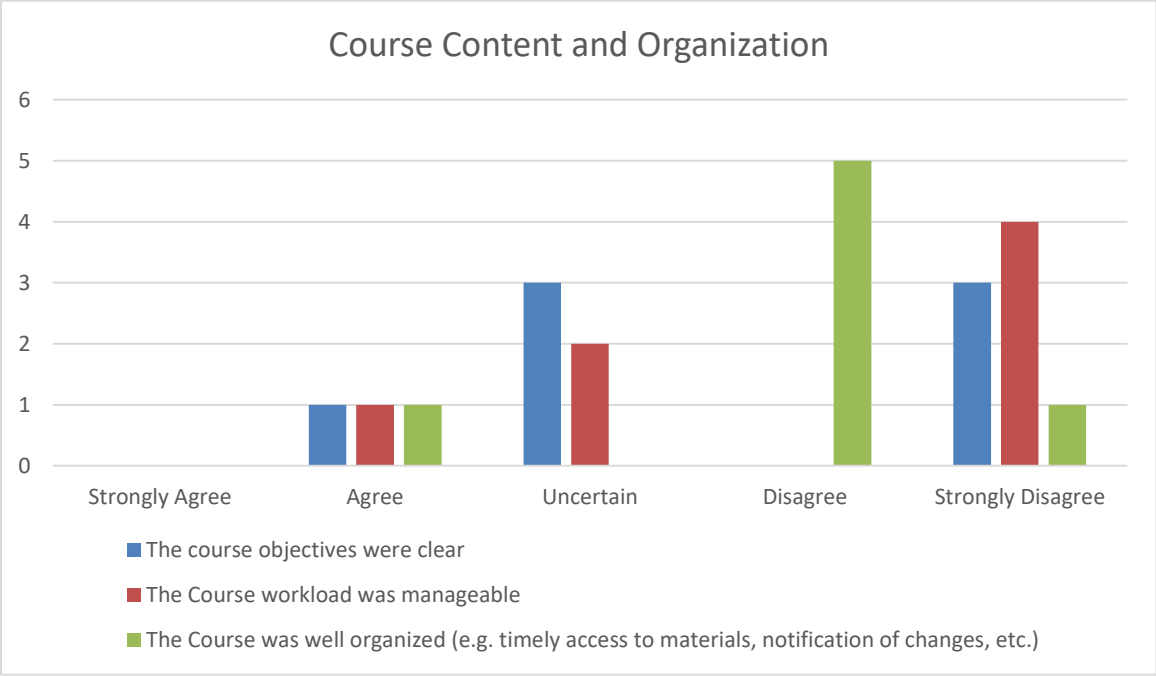
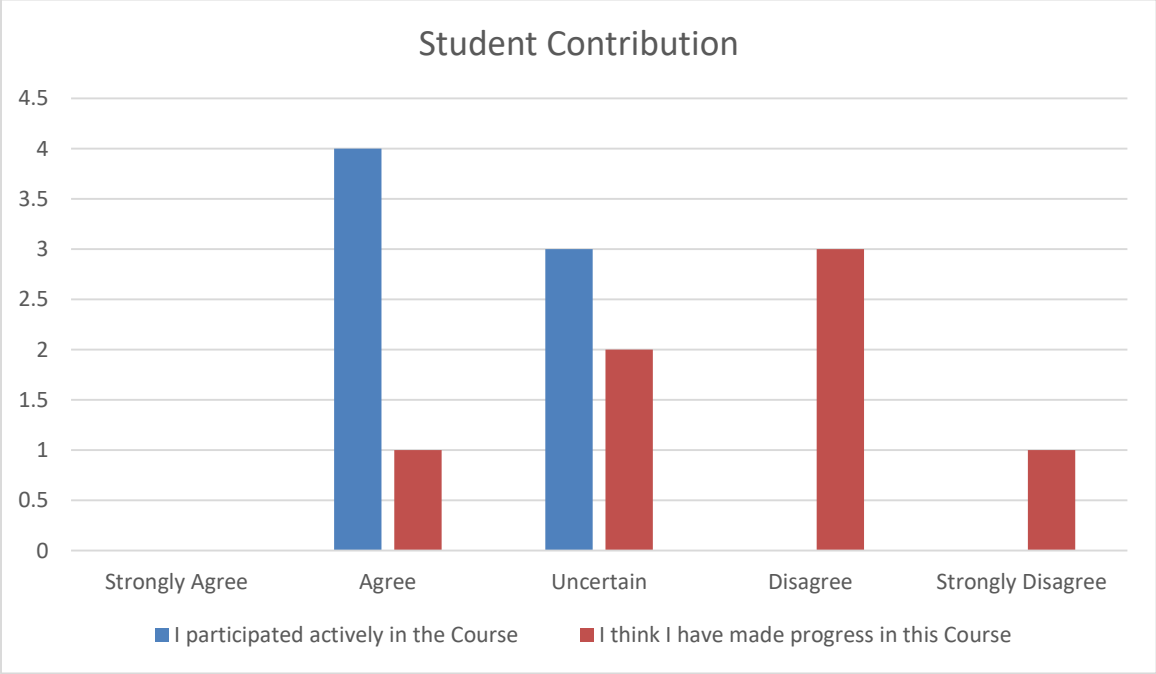
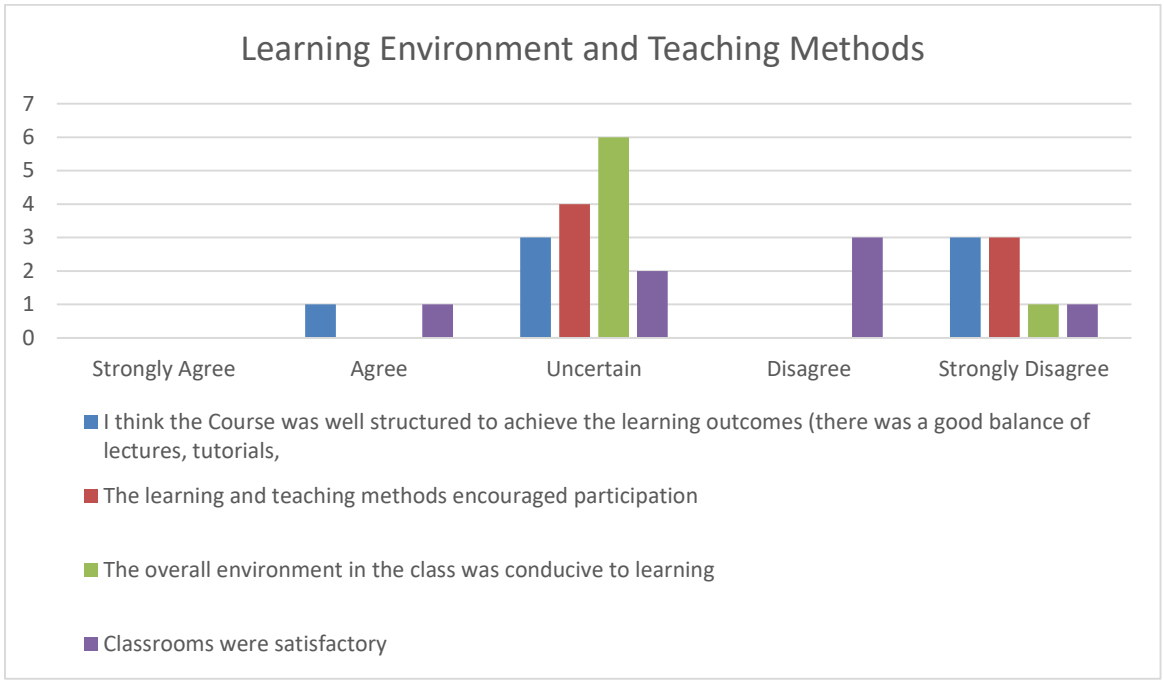
Mr. Arshad Iqbal

Object Oriented Programming






Learning Environment and Teaching Methods
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I think the Course was well structured to achieve the learning outcomes (there was a good balance of lectures, tutorials,
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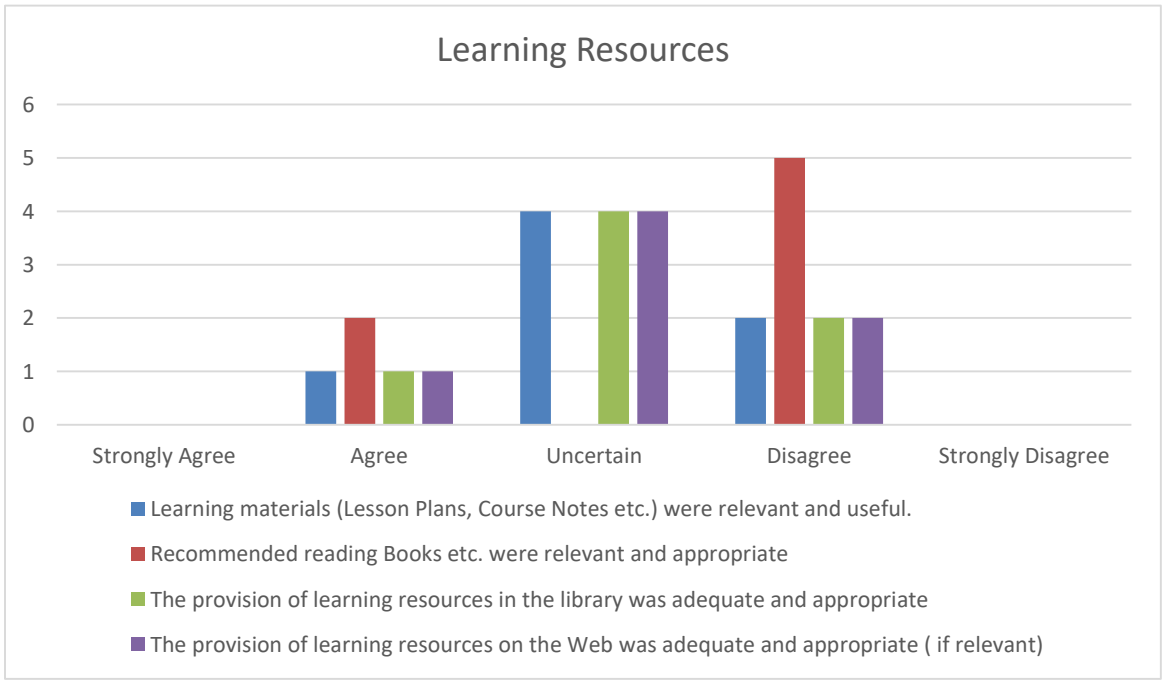
Learning Resources
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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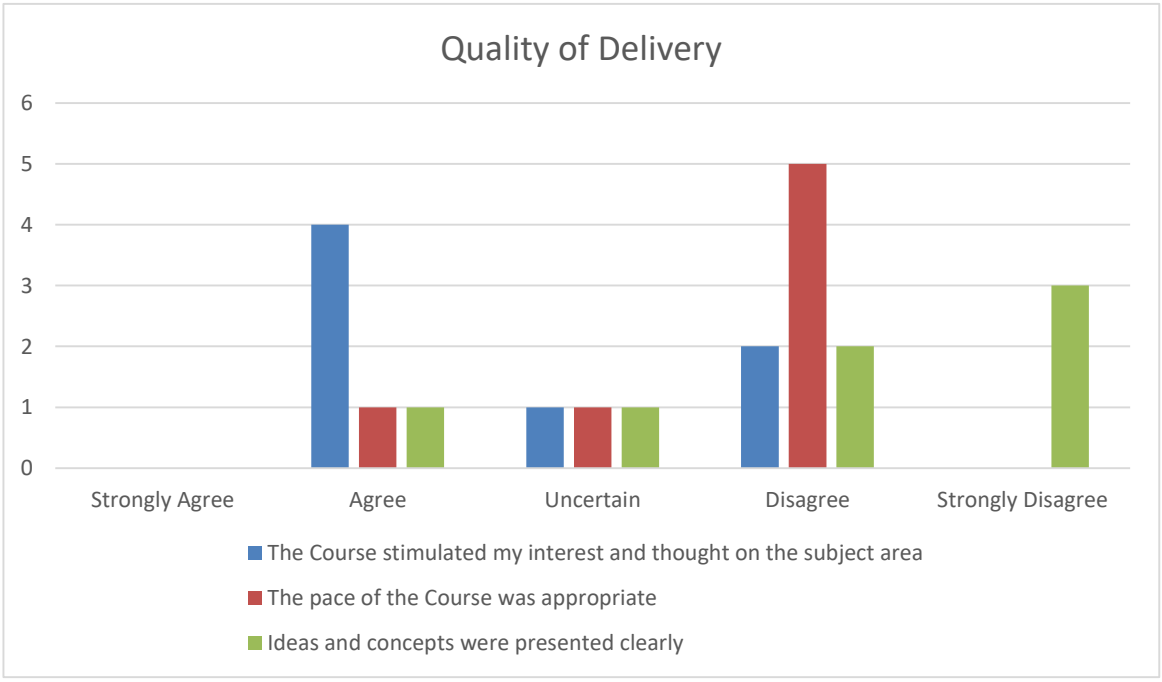
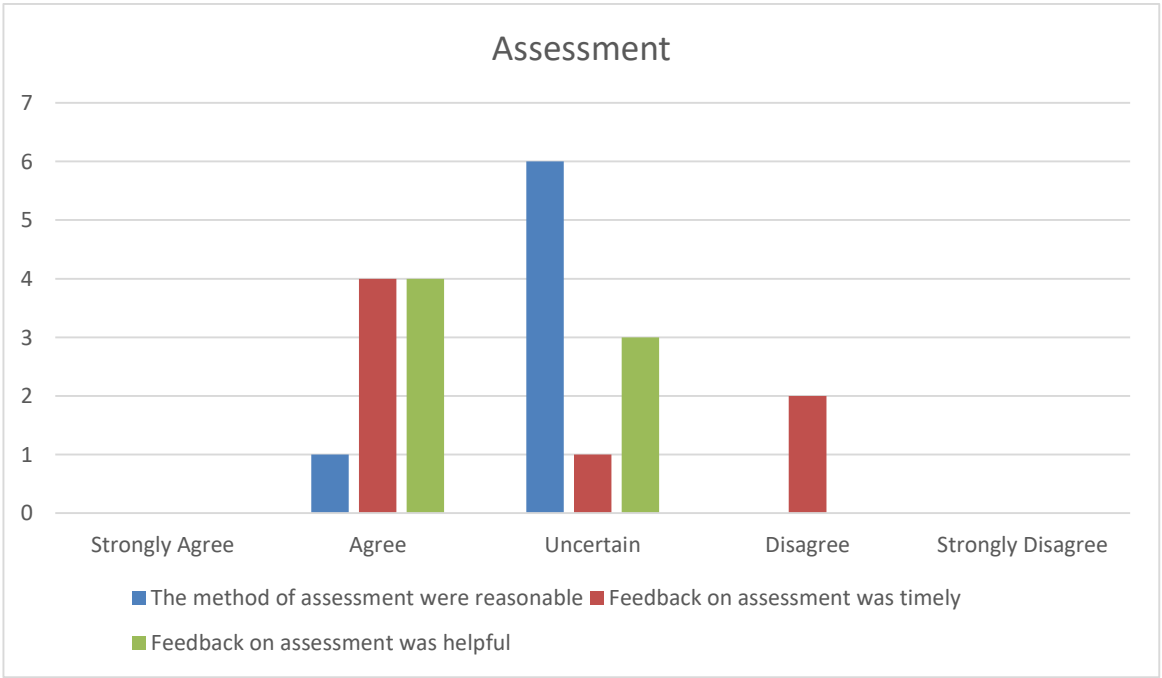
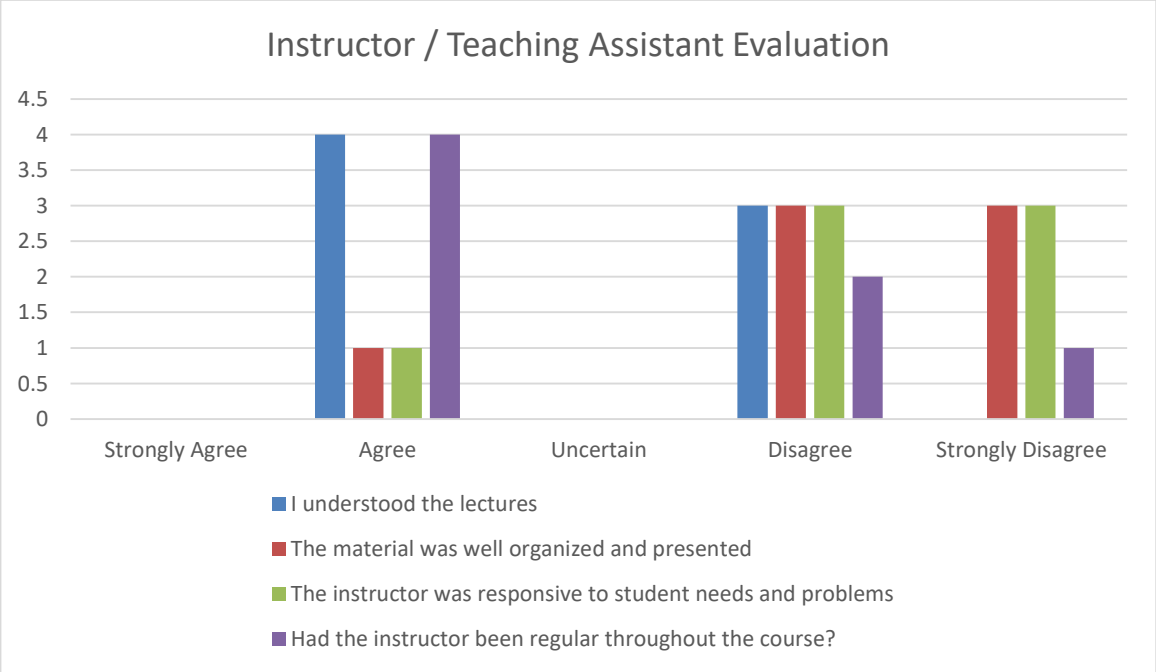

Quality of Delivery
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
The pace of the Course was appropriate
Ideas and concepts were presented clearly


Assessment
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful


Instructor / Teaching Assistant Evaluation
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Strongly Agree
Agree
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Strongly Disagree
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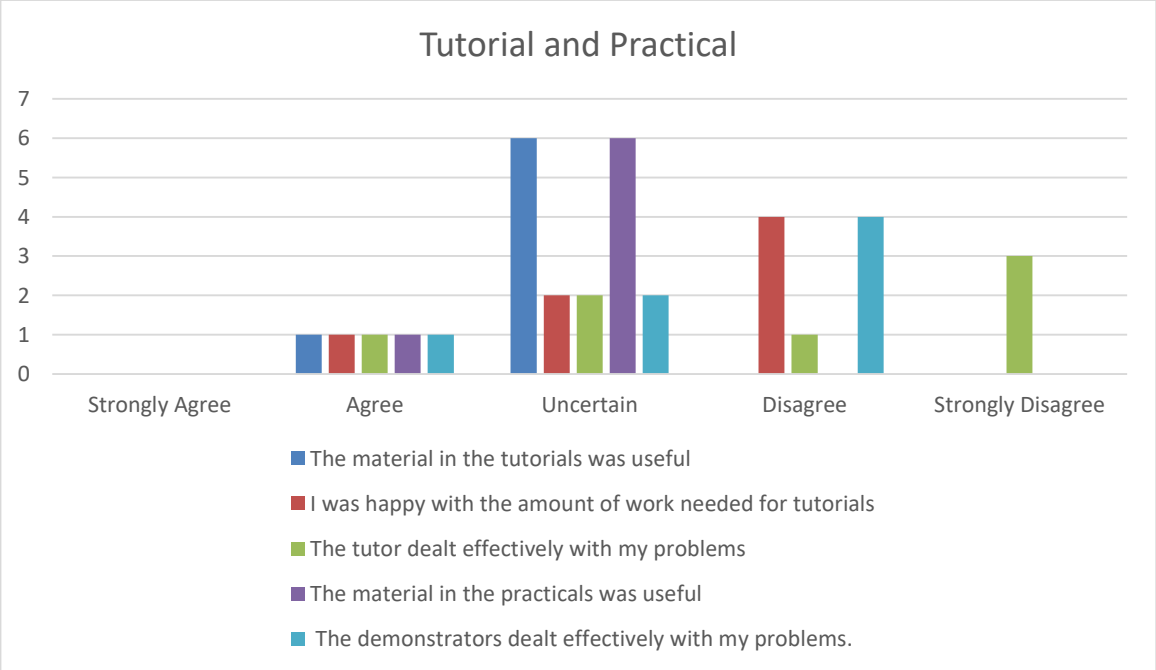
Tutorial and Practical
7
6
5
4
3
2
1
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The material in the tutorials was useful
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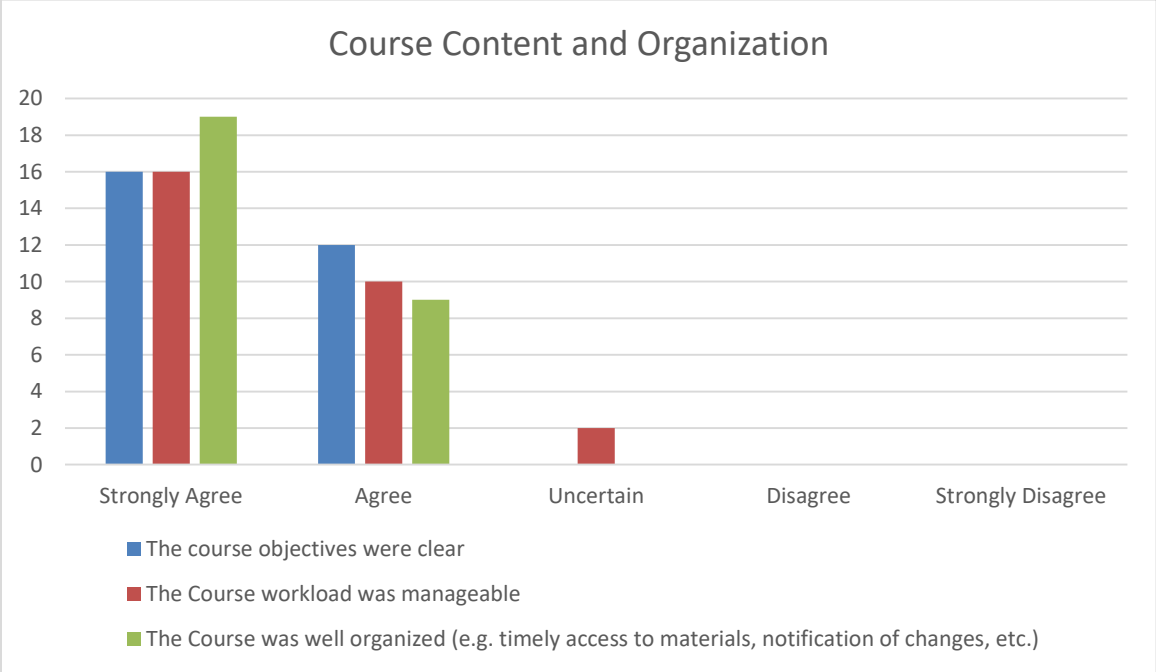
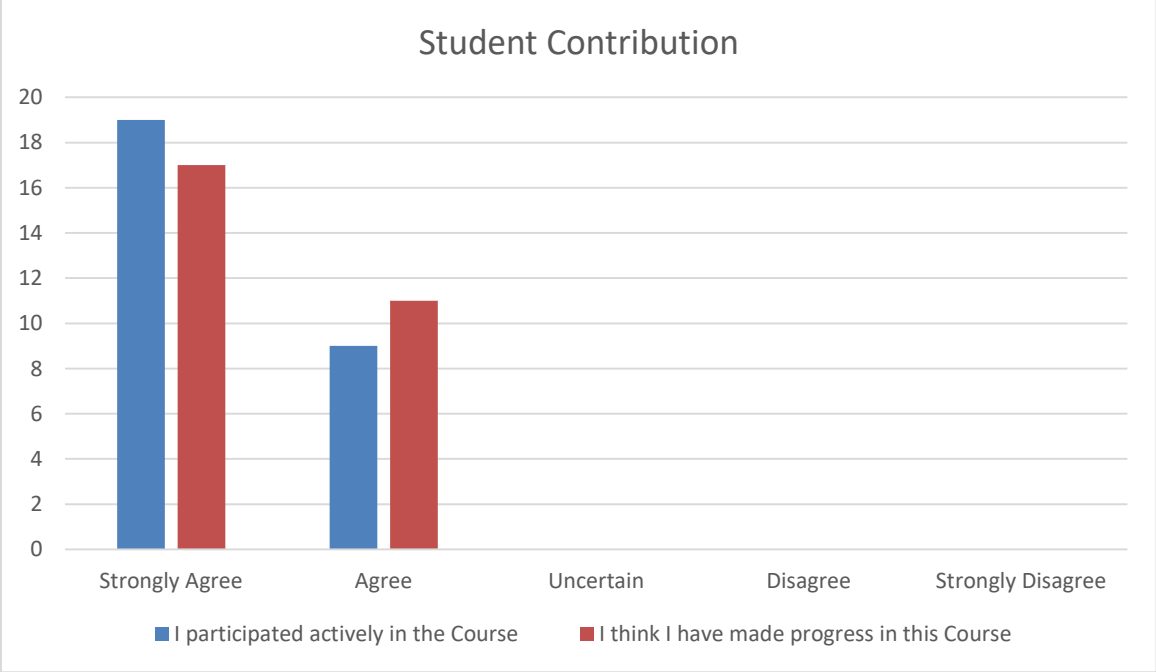
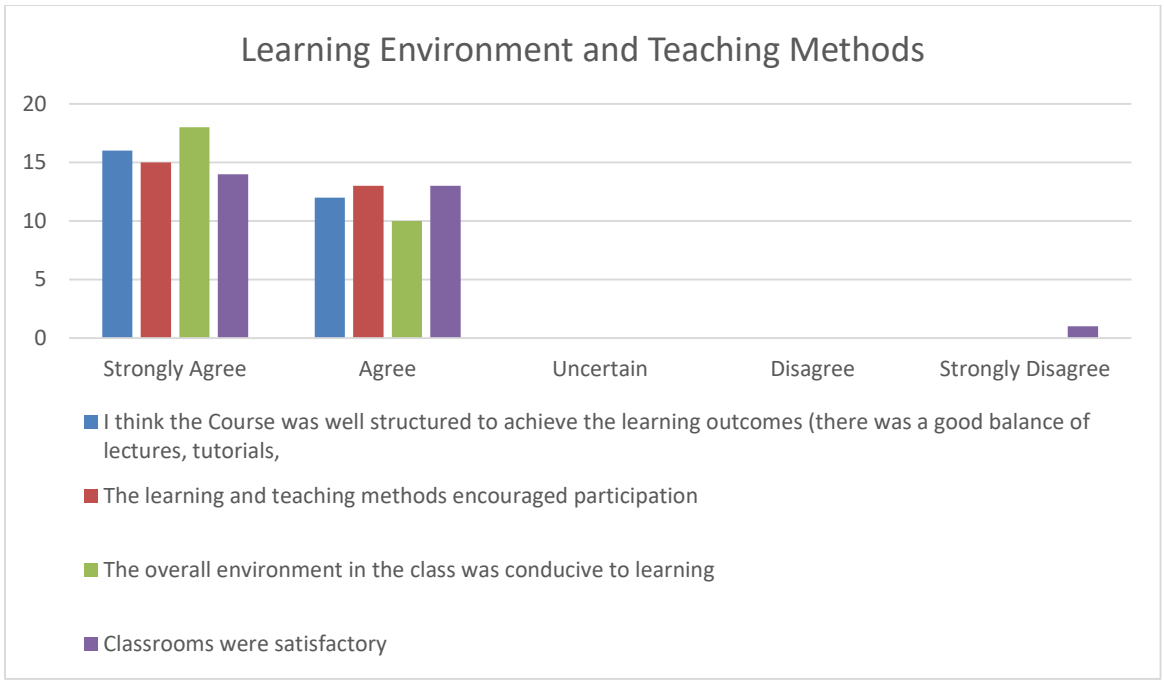
Mr. Shad Muhammad

Software Engineering






Learning Environment and Teaching Methods
20
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
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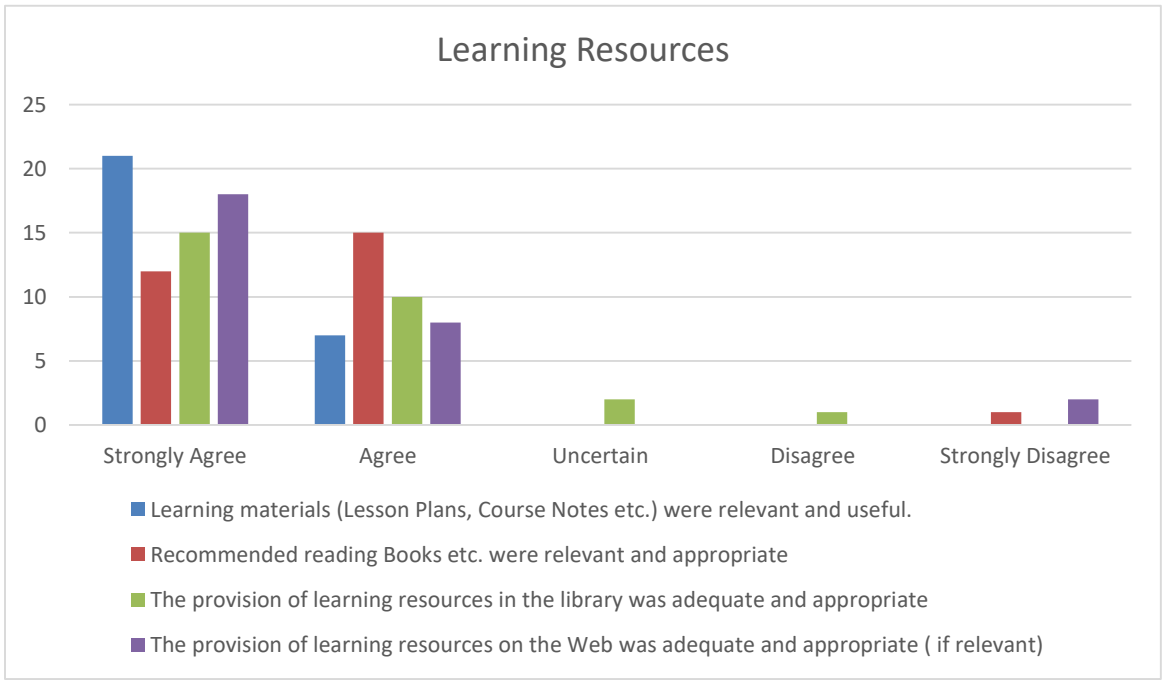
Learning Resources
25
20
15
10
5
0
Strongly Agree
Agree
Uncertain
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Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.
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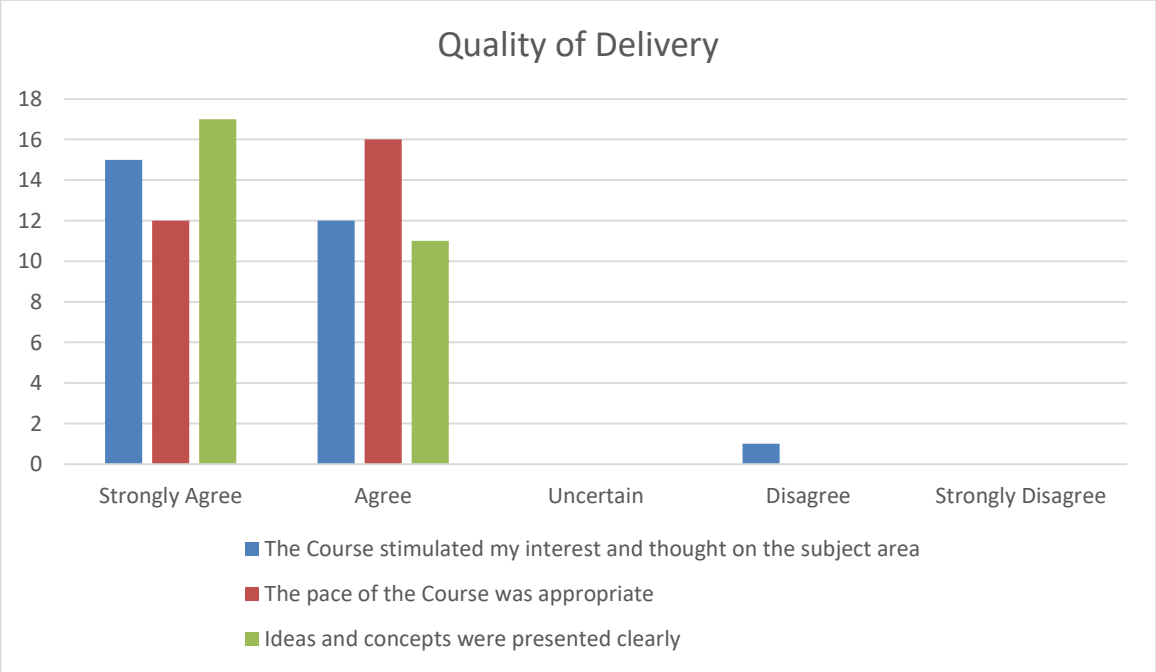
Quality of Delivery
18
16
14
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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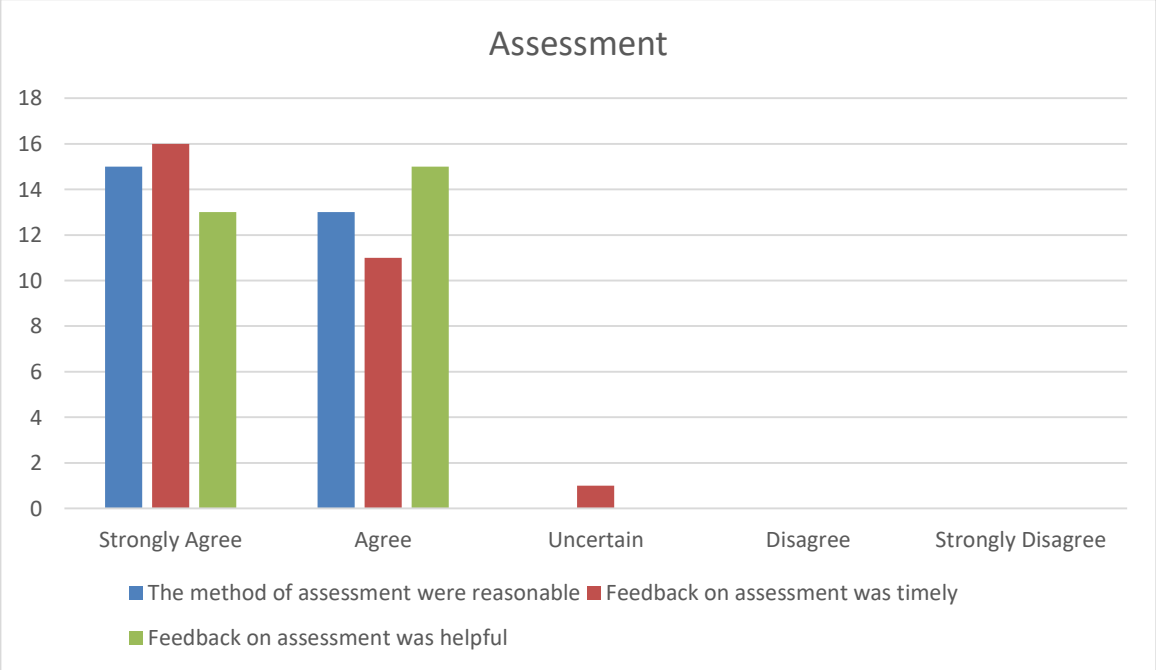
Assessment
18
16
14
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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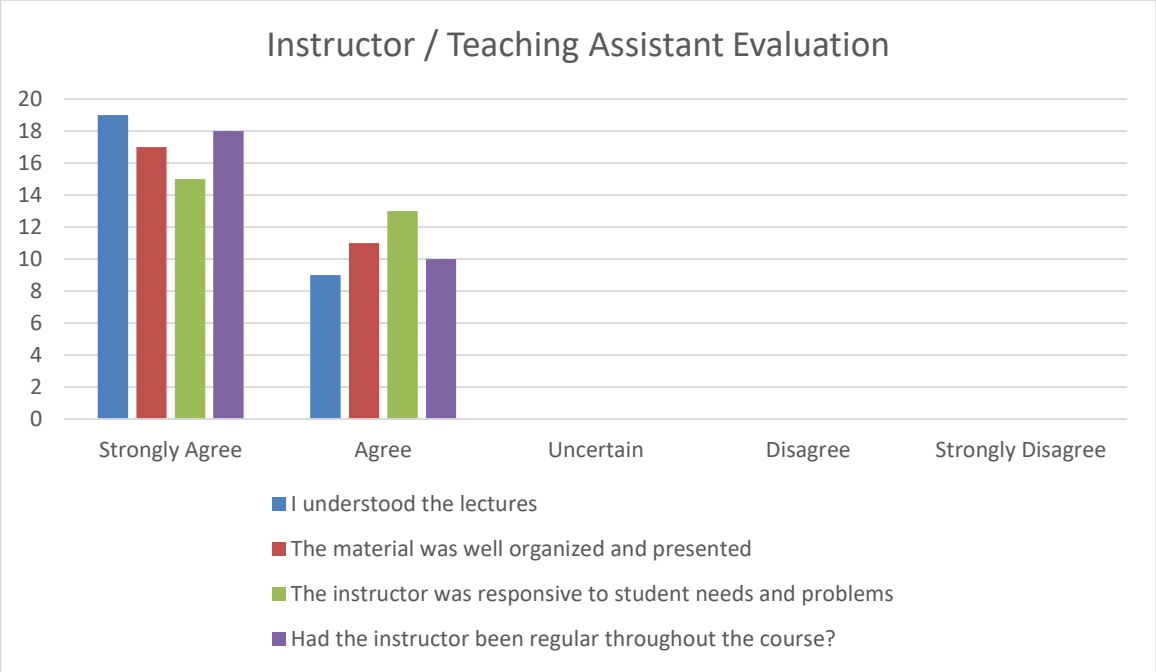
Instructor / Teaching Assistant Evaluation
20
18
16
14
12
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8
6
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Strongly Agree
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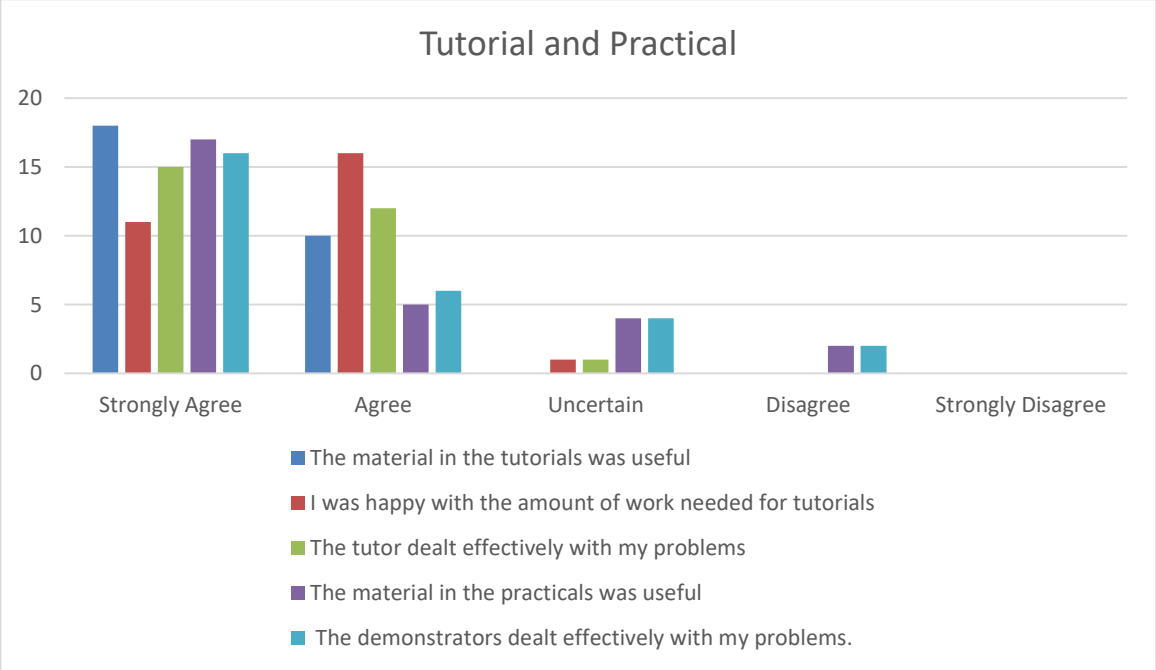
Tutorial and Practical
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15
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Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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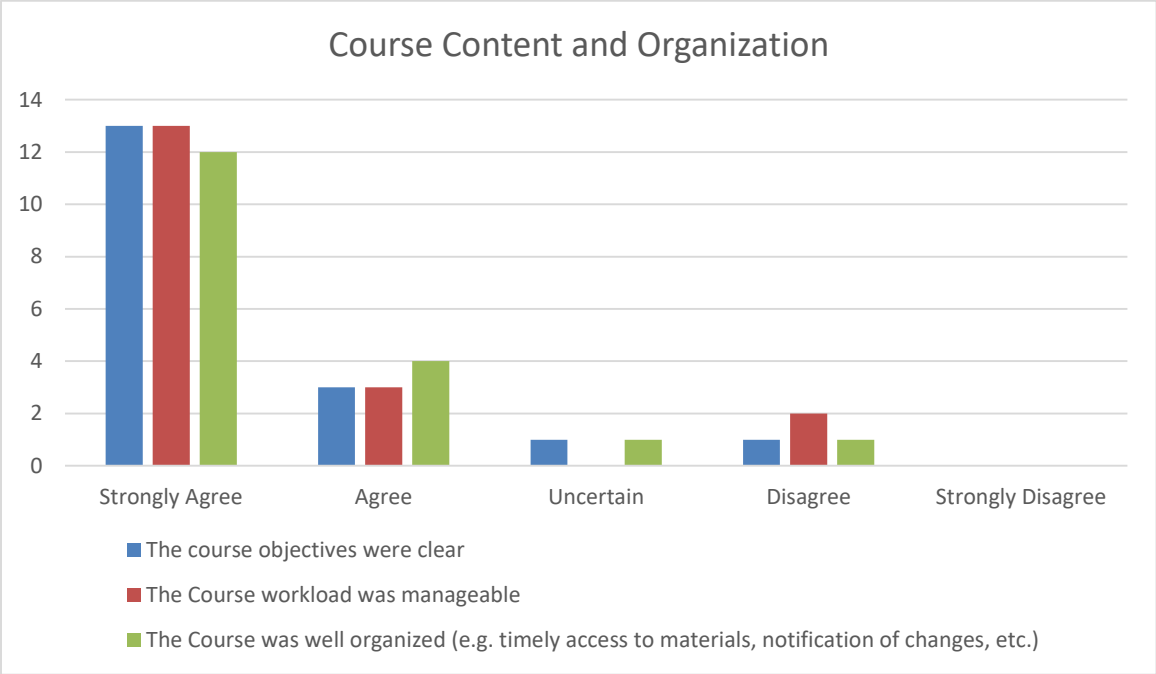
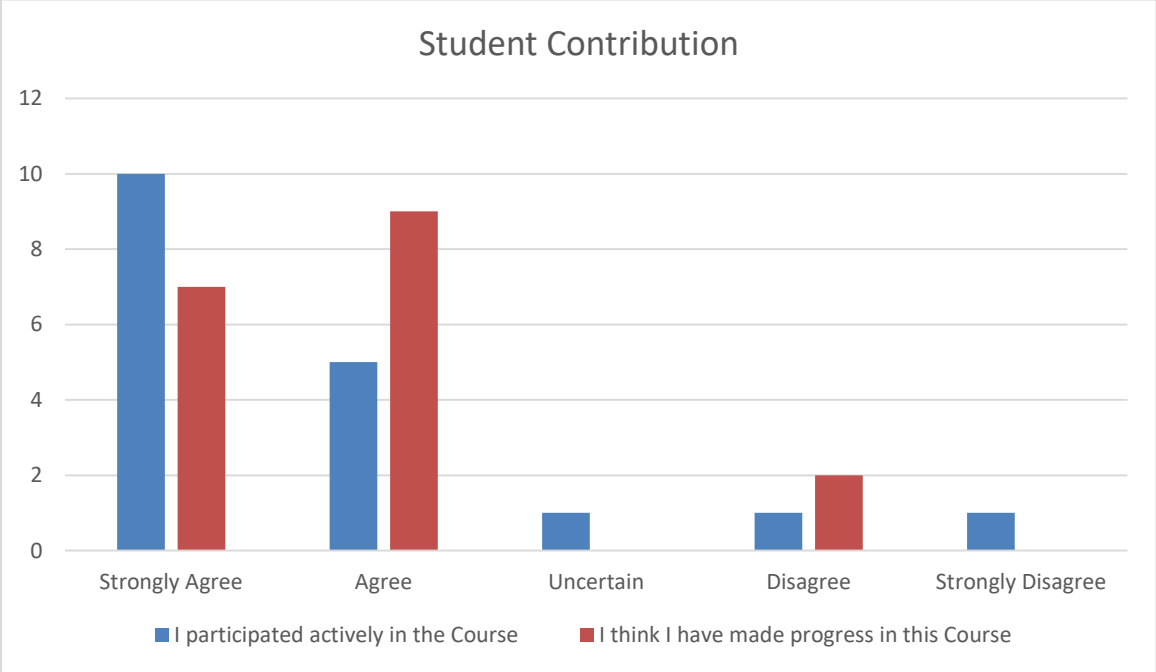
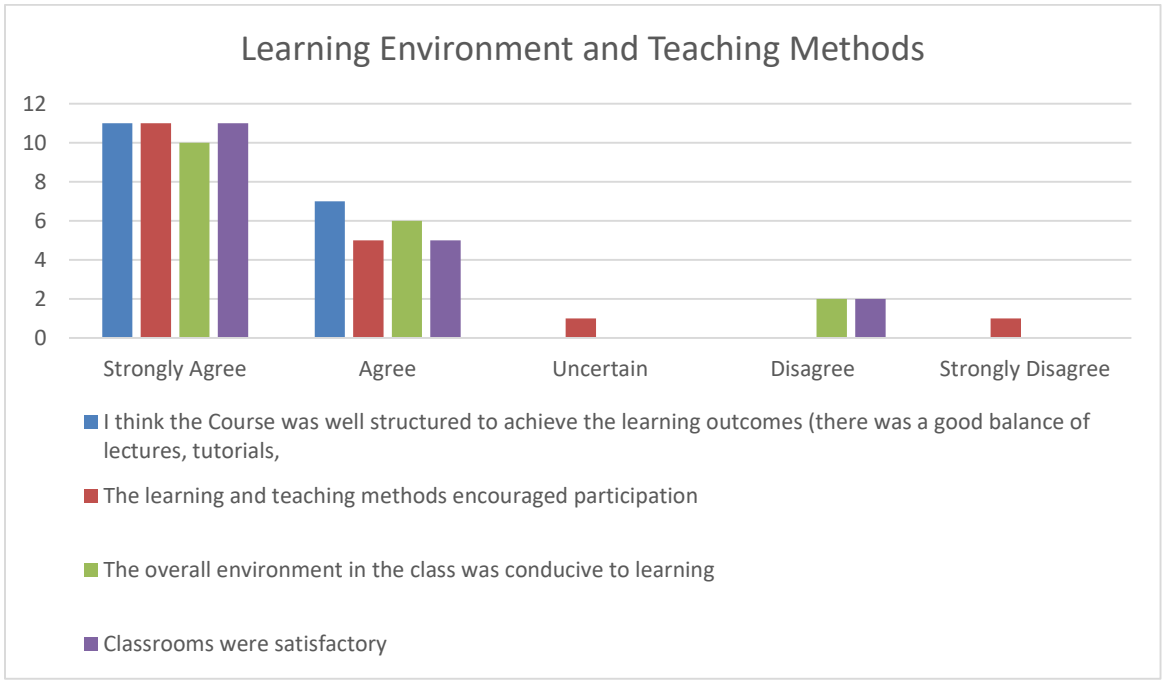
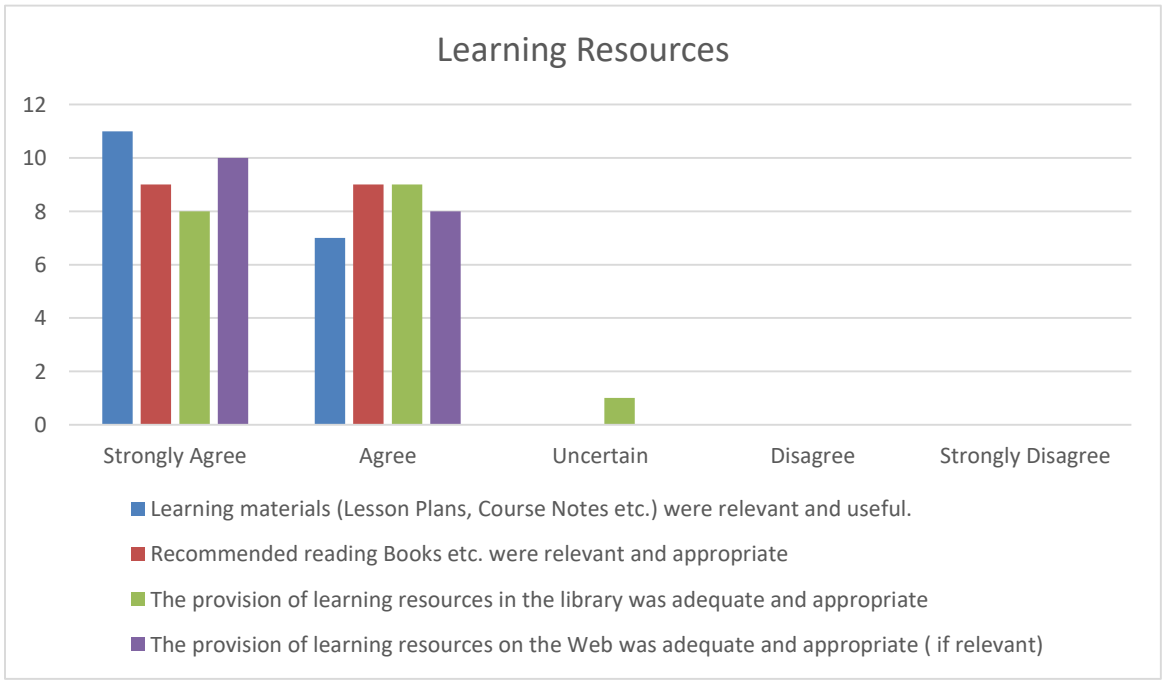
Mr. Wear Ahmed Jan

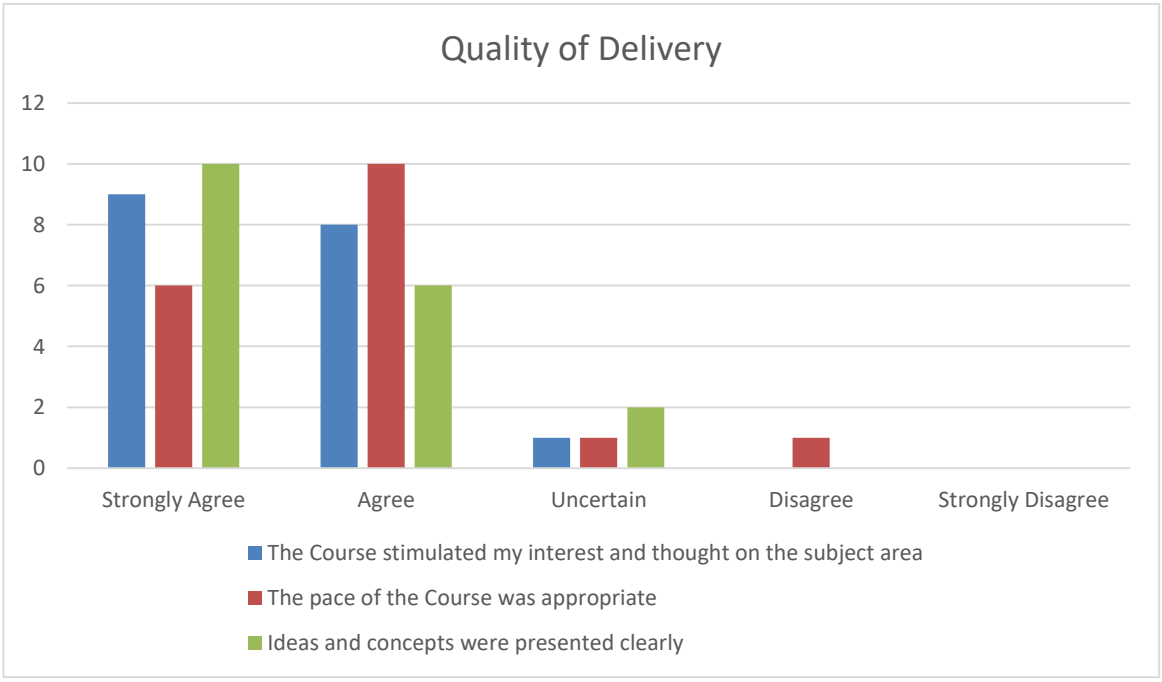
Microprocessor & Assembly Language






Learning Environment and Teaching Methods
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I think the Course was well structured to achieve the learning outcomes (there was a good balance of lectures, tutorials,
The learning and teaching methods encouraged participation
The overall environment in the class was conducive to learning
Classrooms were satisfactory


Learning Resources
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.
Recommended reading Books etc. were relevant and appropriate
The provision of learning resources in the library was adequate and appropriate
The provision of learning resources on the Web was adequate and appropriate (if relevant)


Quality of Delivery
12
10
8
6
4
2
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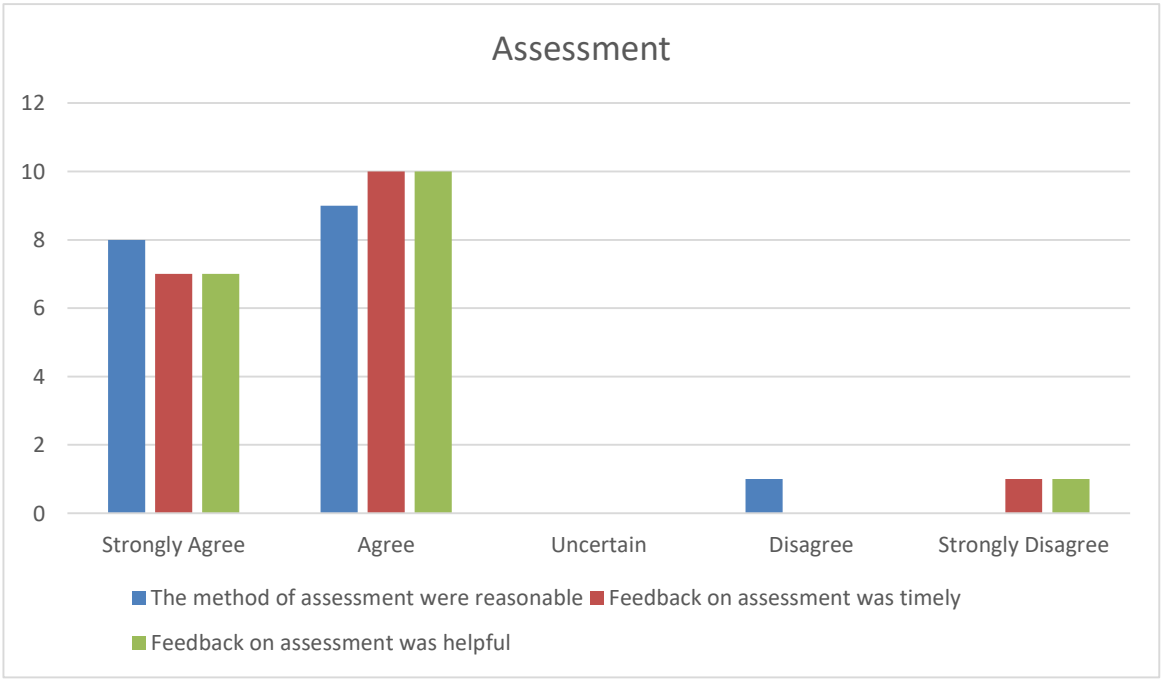
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
The pace of the Course was appropriate
Ideas and concepts were presented clearly


Assessment
12
10
8
6
4
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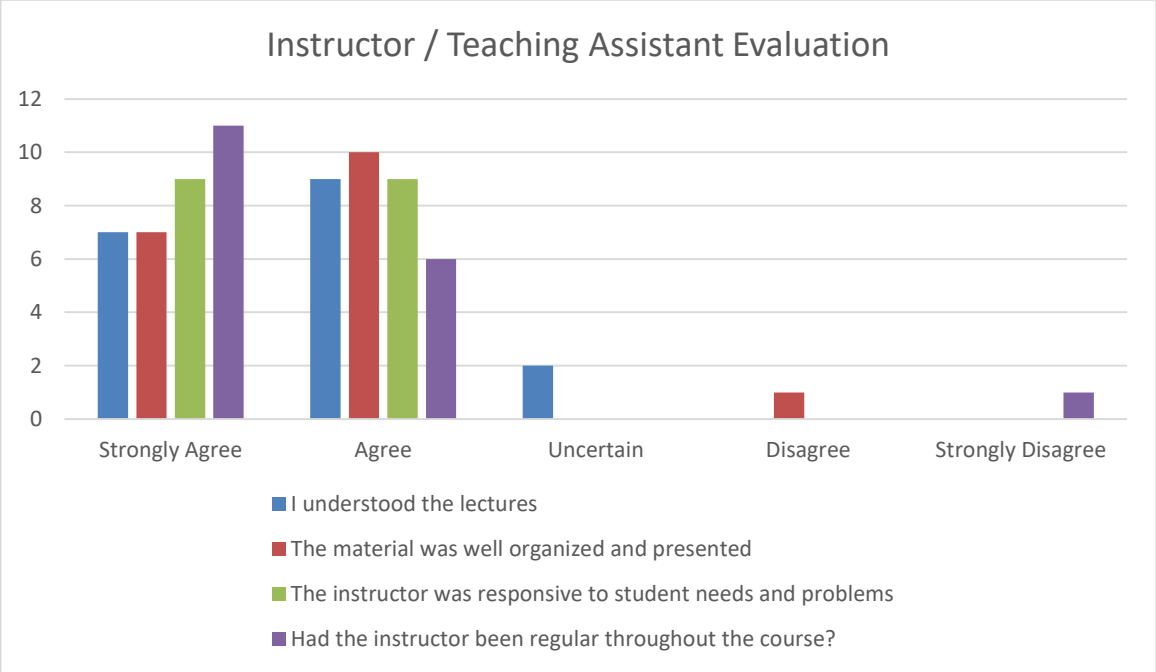
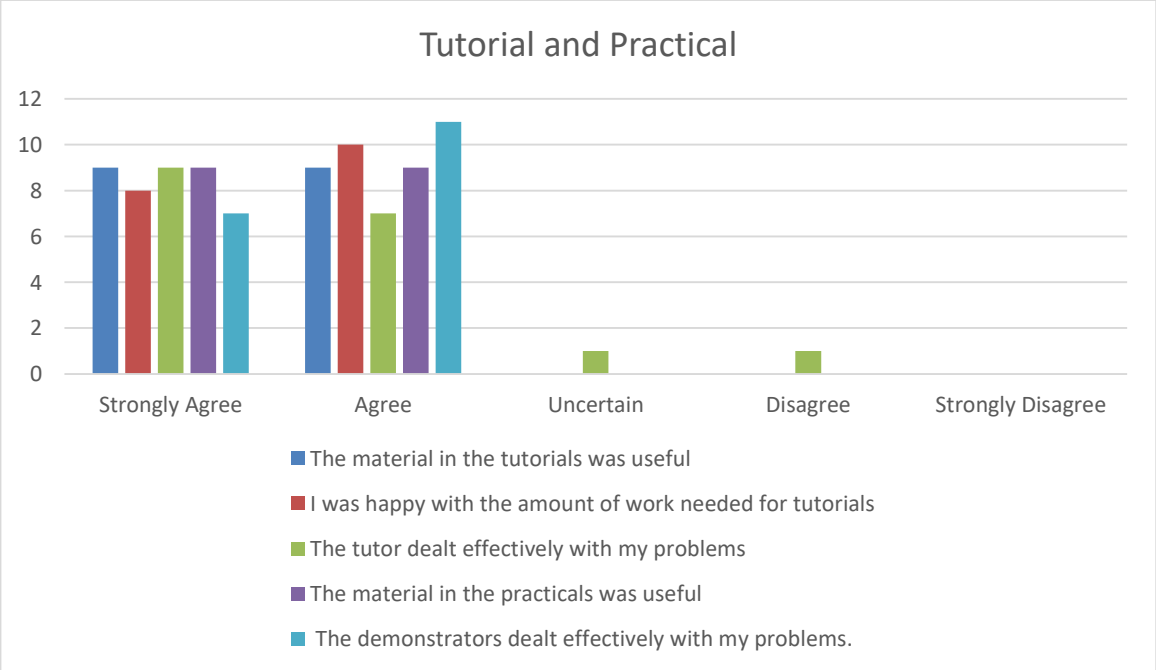
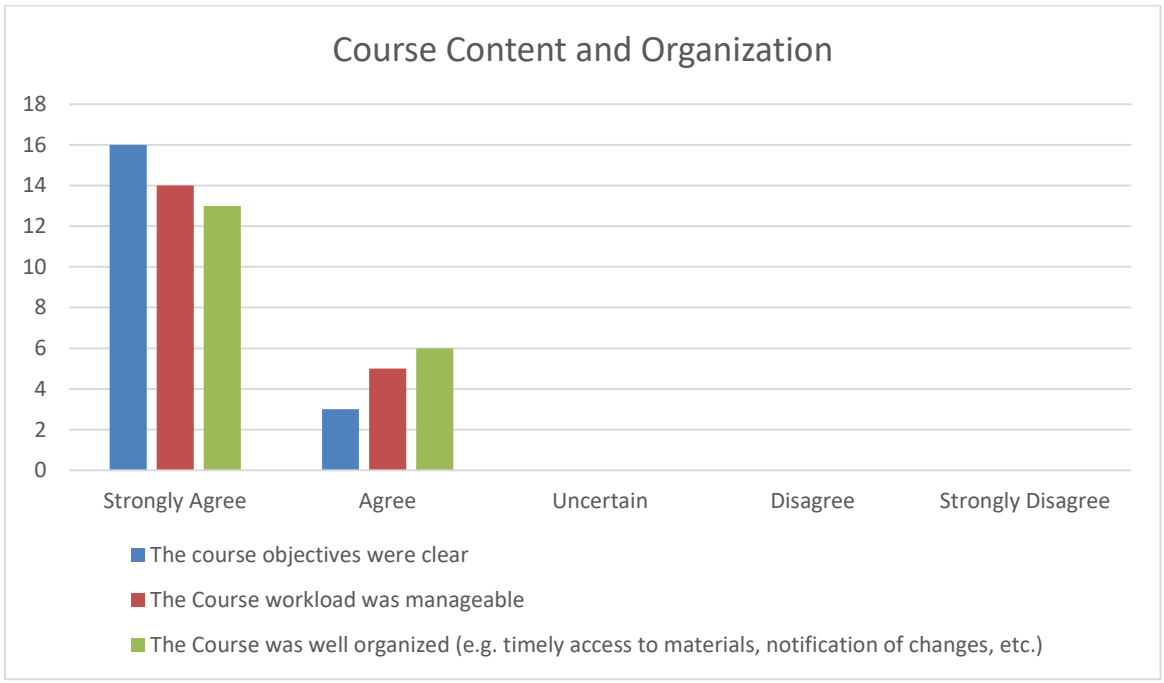
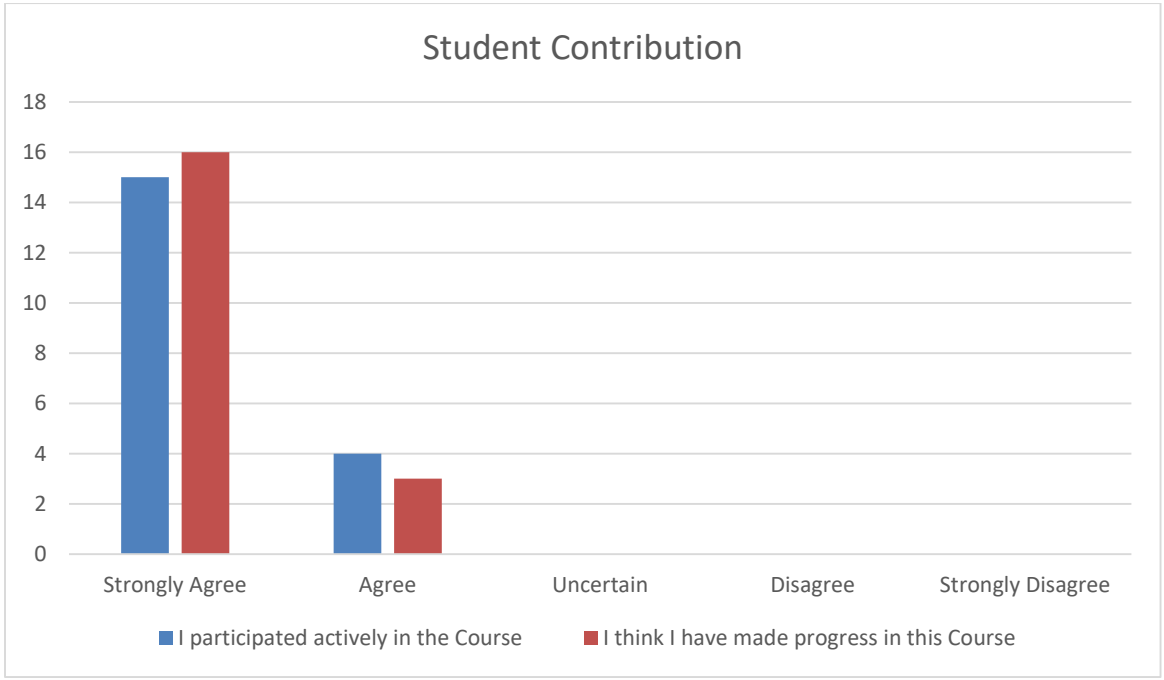
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful

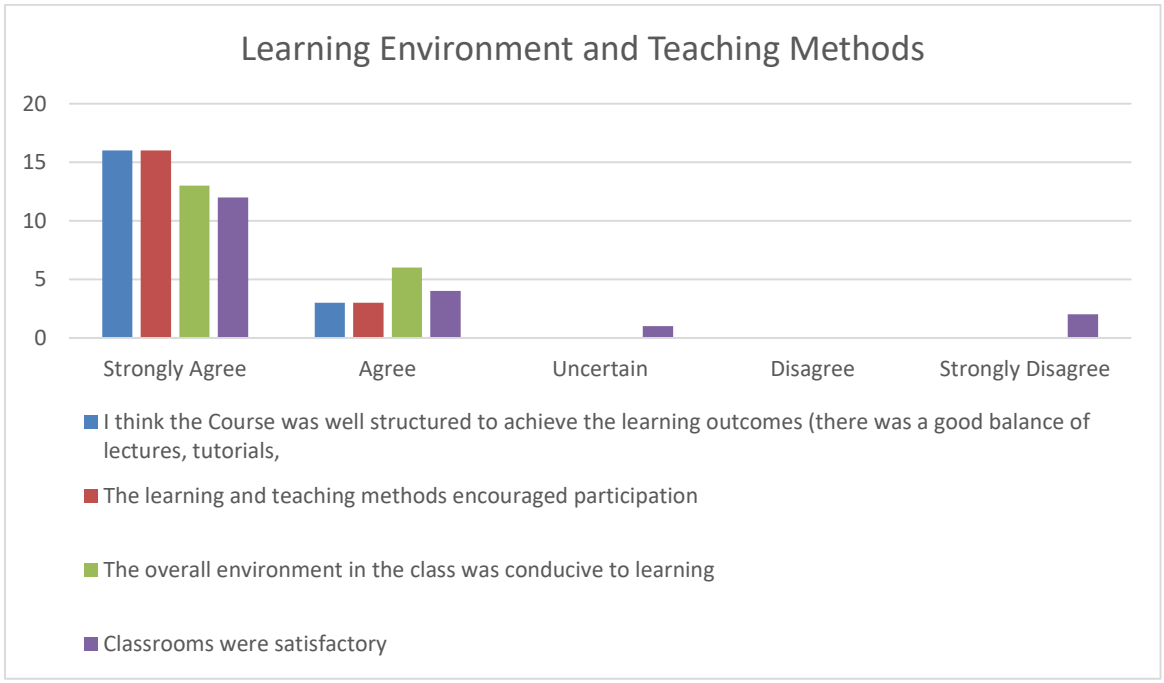

Instructor / Teaching Assistant Evaluation
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I understood the lectures
The material was well organized and presented
The instructor was responsive to student needs and problems
Had the instructor been regular throughout the course?


Tutorial and Practical
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The material in the tutorials was useful
I was happy with the amount of work needed for tutorials
The tutor dealt effectively with my problems
The material in the practicals was useful
The demonstrators dealt effectively with my problems.

Mr. Rashid
Statistic and Probability






Learning Environment and Teaching Methods
20
15
10
5
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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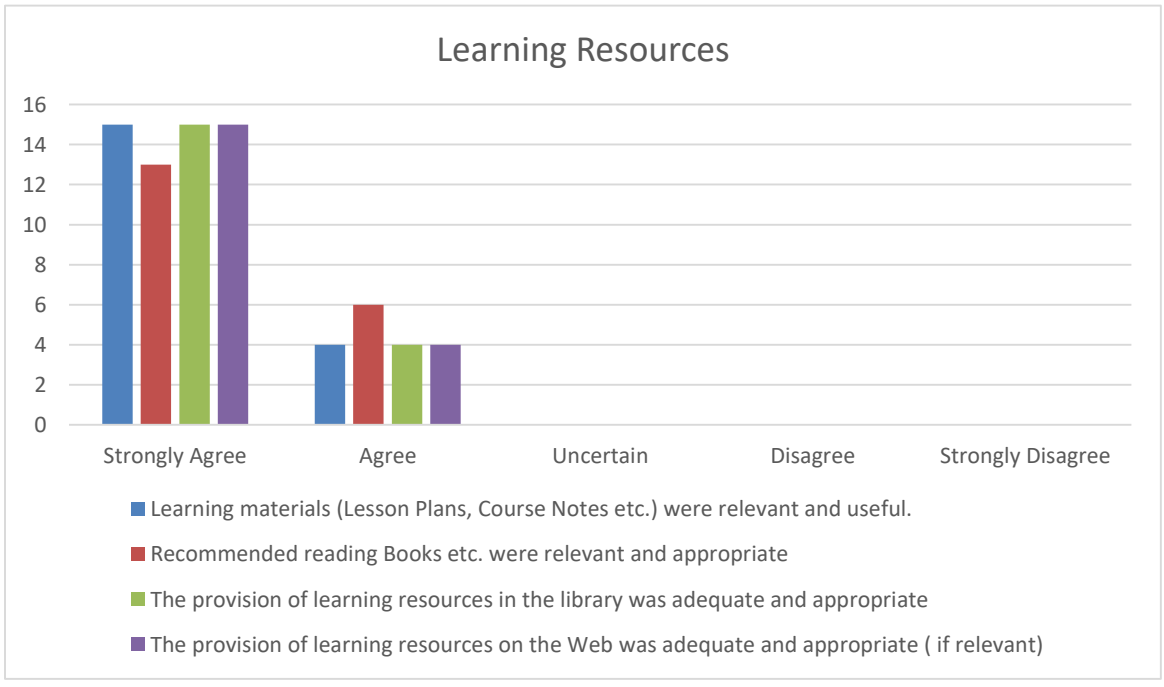
Learning Resources
16
14
12
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8
6
4
2
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Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
Learning materials (Lesson Plans, Course Notes etc.) were relevant and useful.
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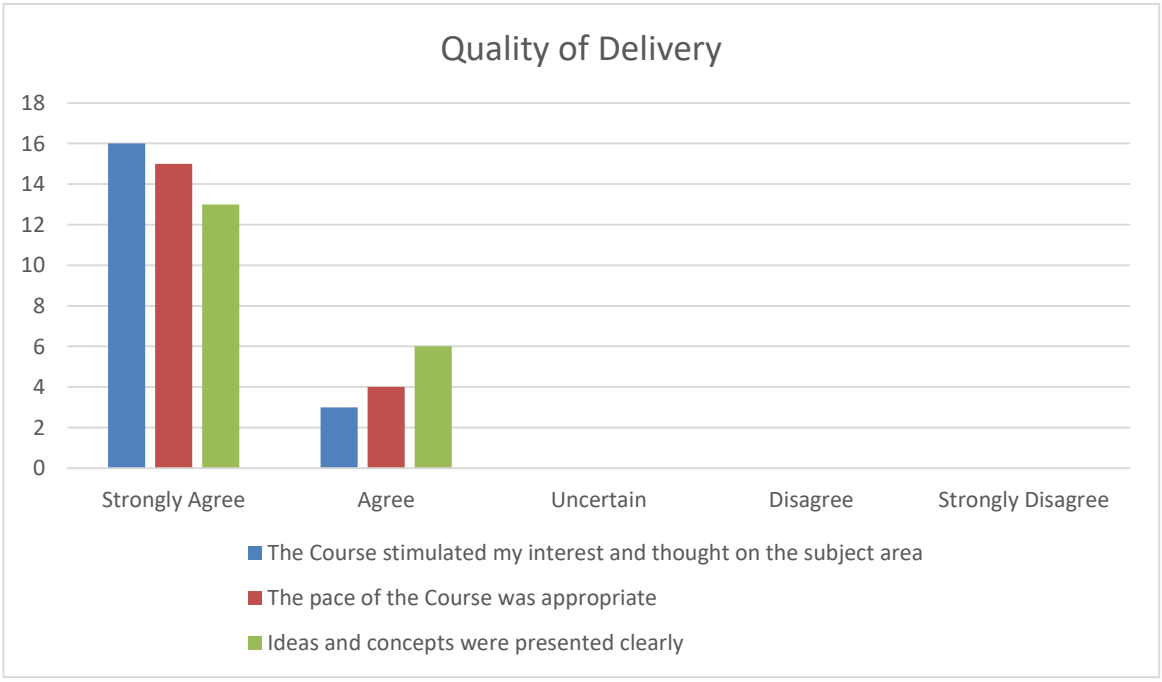
Quality of Delivery
18
16
14
12
10
8
6
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2
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Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The Course stimulated my interest and thought on the subject area
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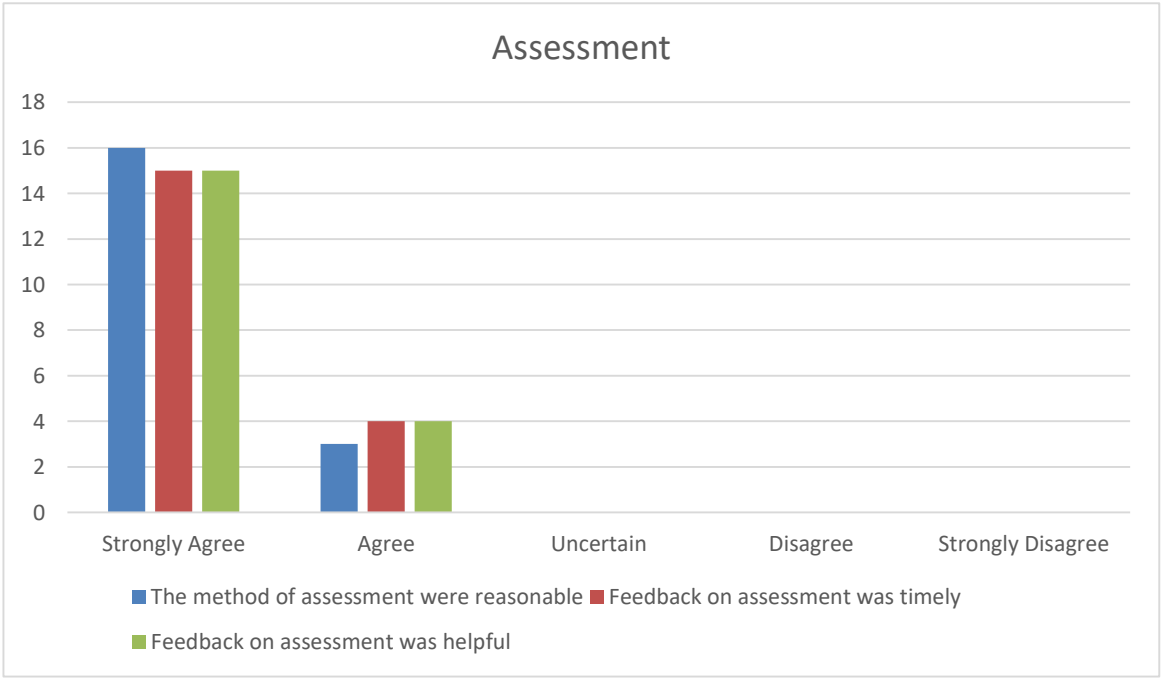
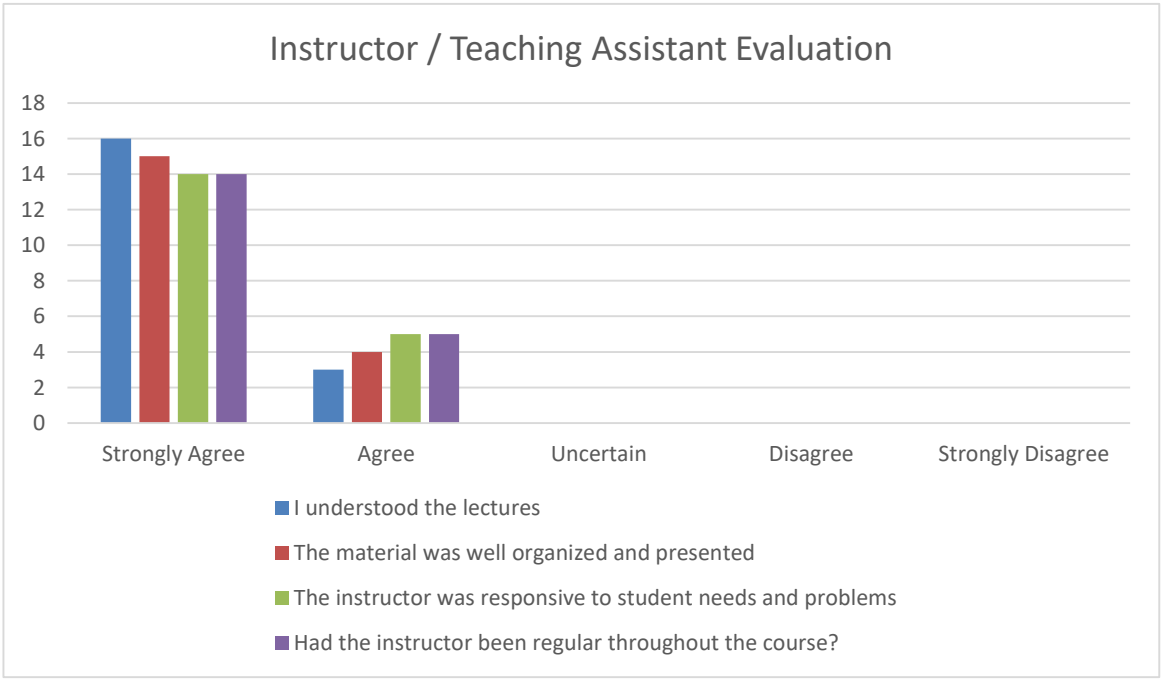

Assessment
18
16
14
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful


Instructor / Teaching Assistant Evaluation
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6
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Agree
Uncertain
Disagree
Strongly Disagree
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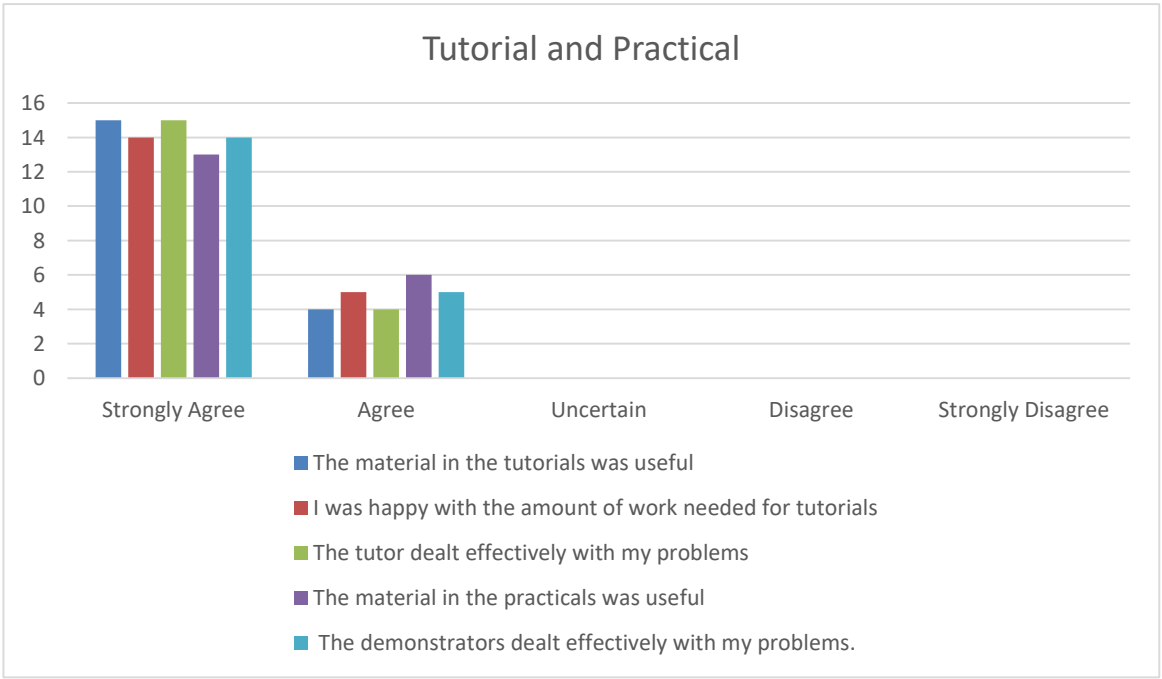
Had the instructor been regular throughout the course?


Tutorial and Practical
16
14
12
10
8
6
4
2
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Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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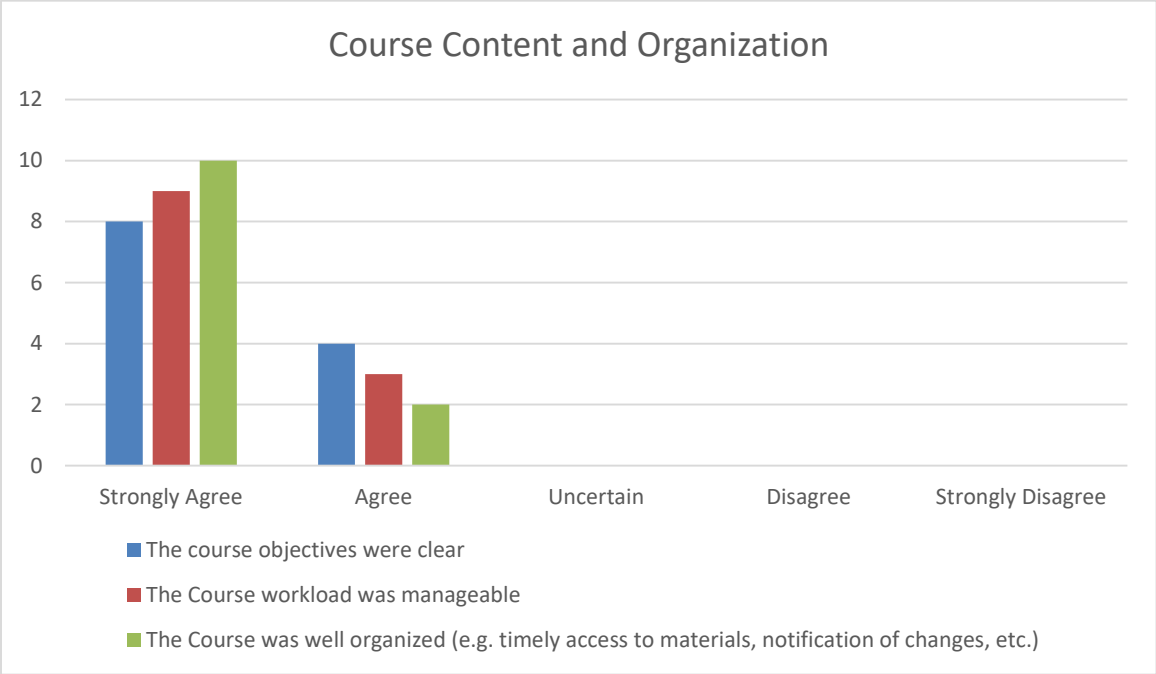
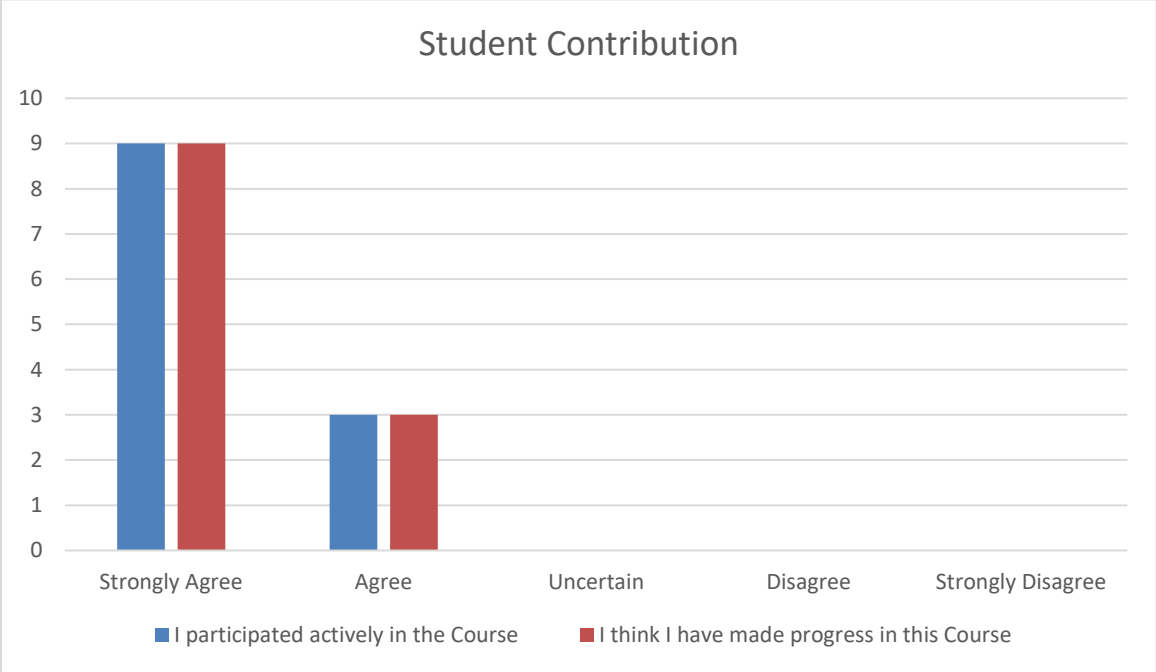
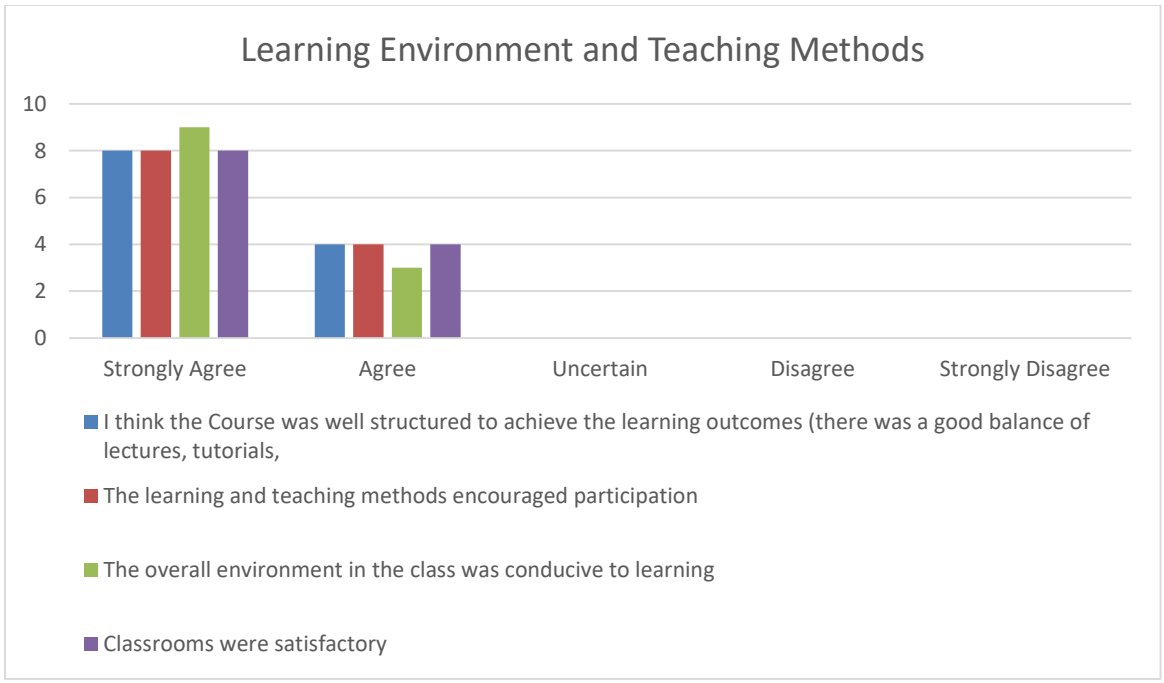
Mr. Aric Sohaila

Linear Algebra MATH301






Learning Environment and Teaching Methods
10
8
6
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2
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Strongly Agree
Agree
Uncertain
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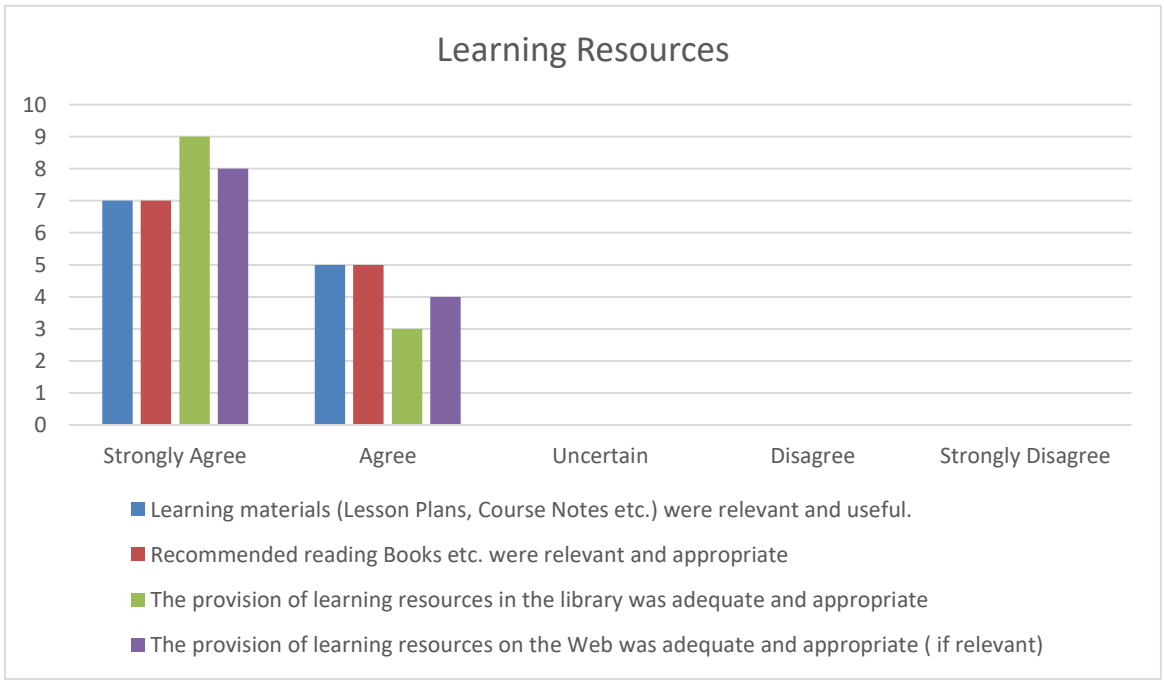
Learning Resources
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Agree
Uncertain
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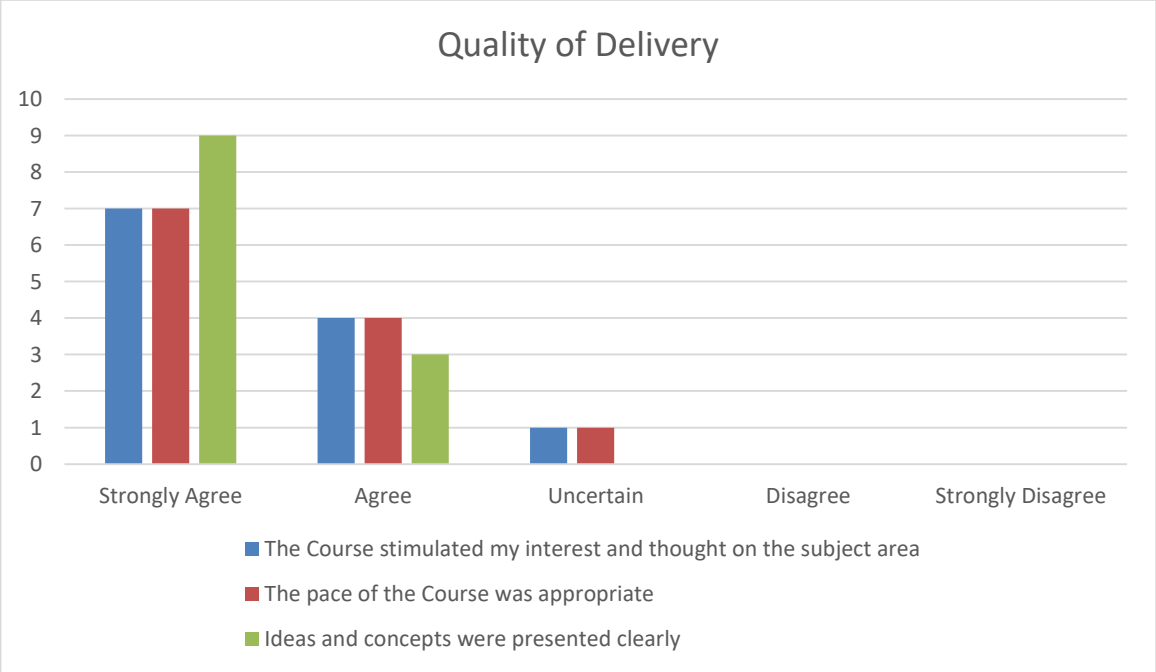
Quality of Delivery
10
9
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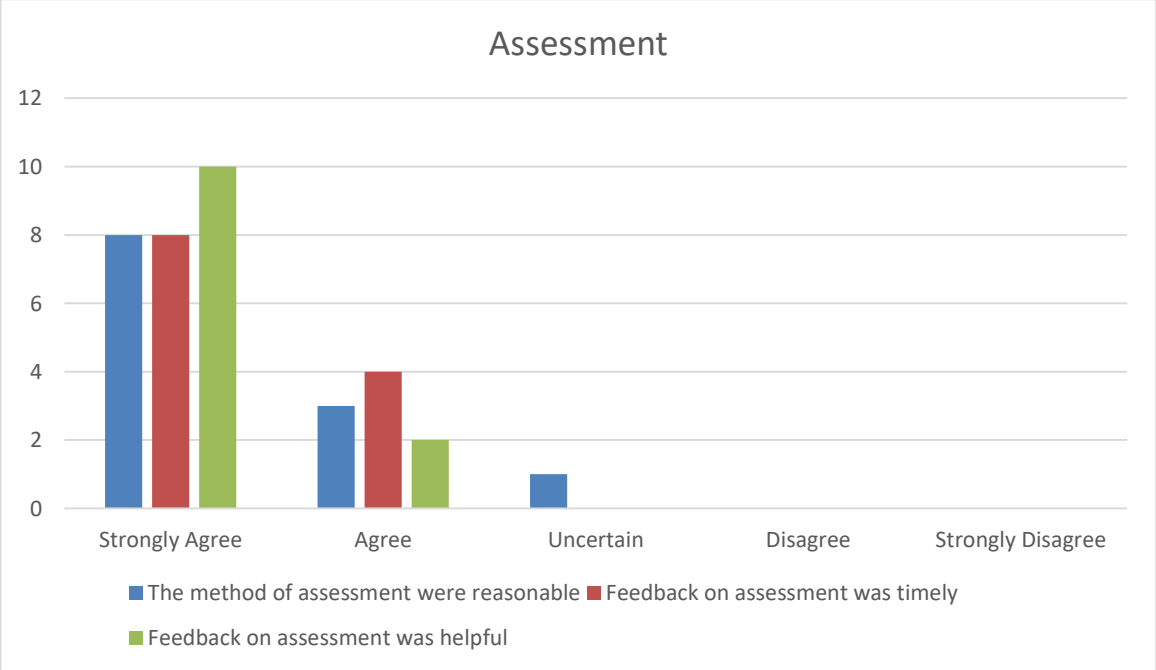
Assessment
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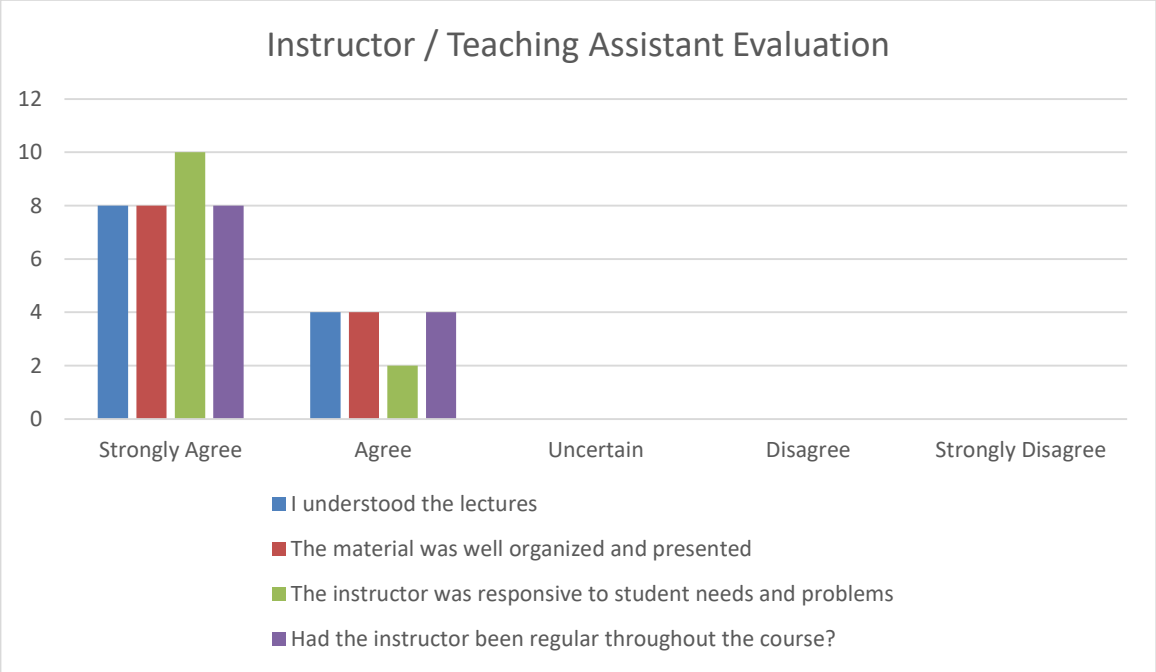
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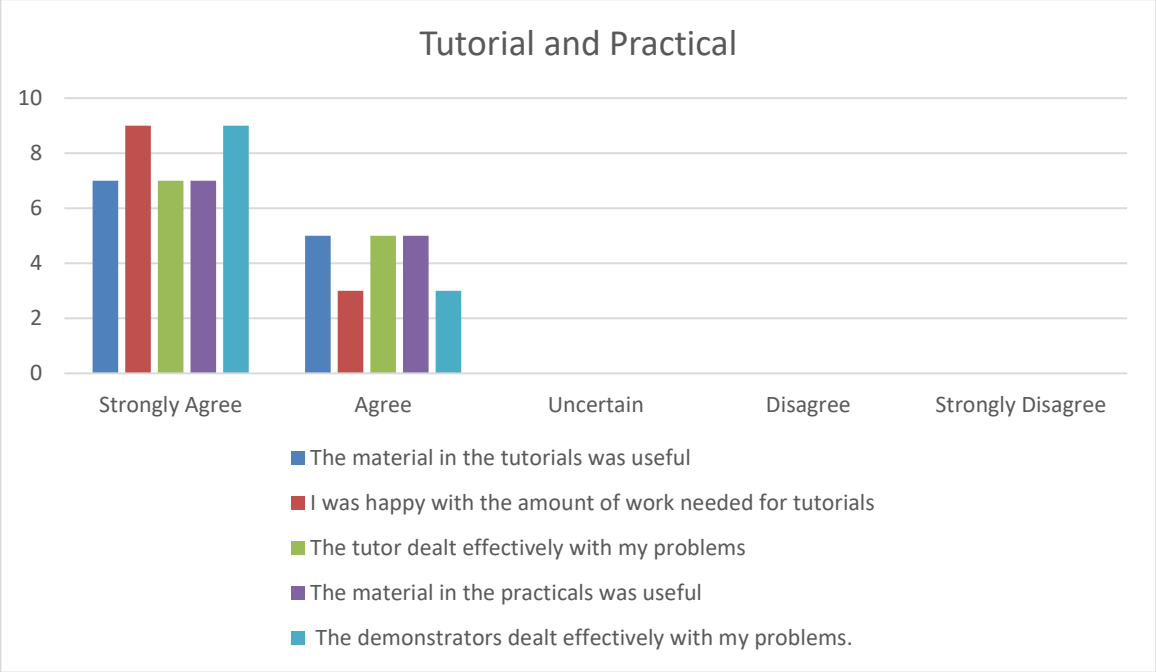
Tutorial and Practical
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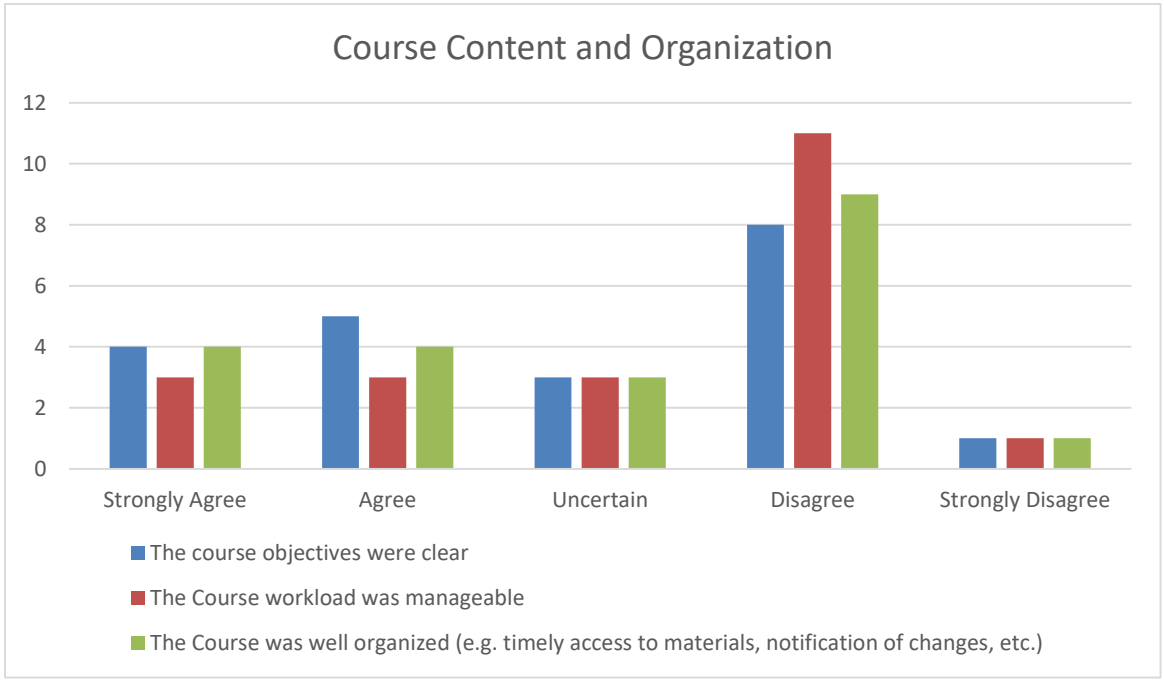
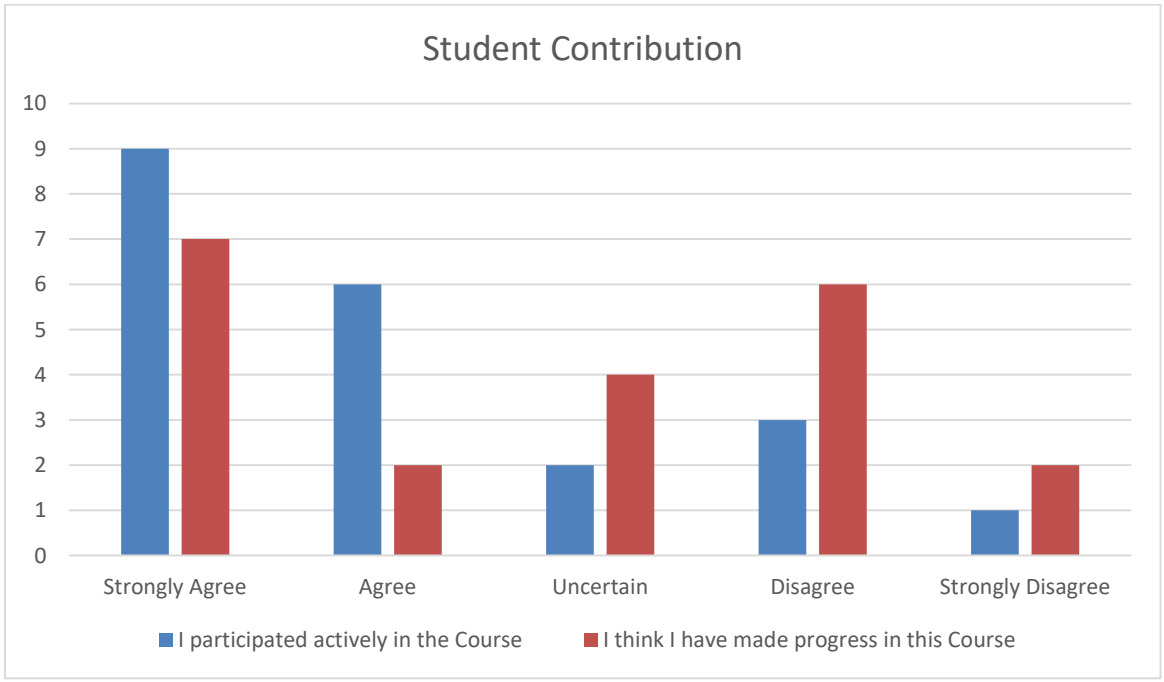
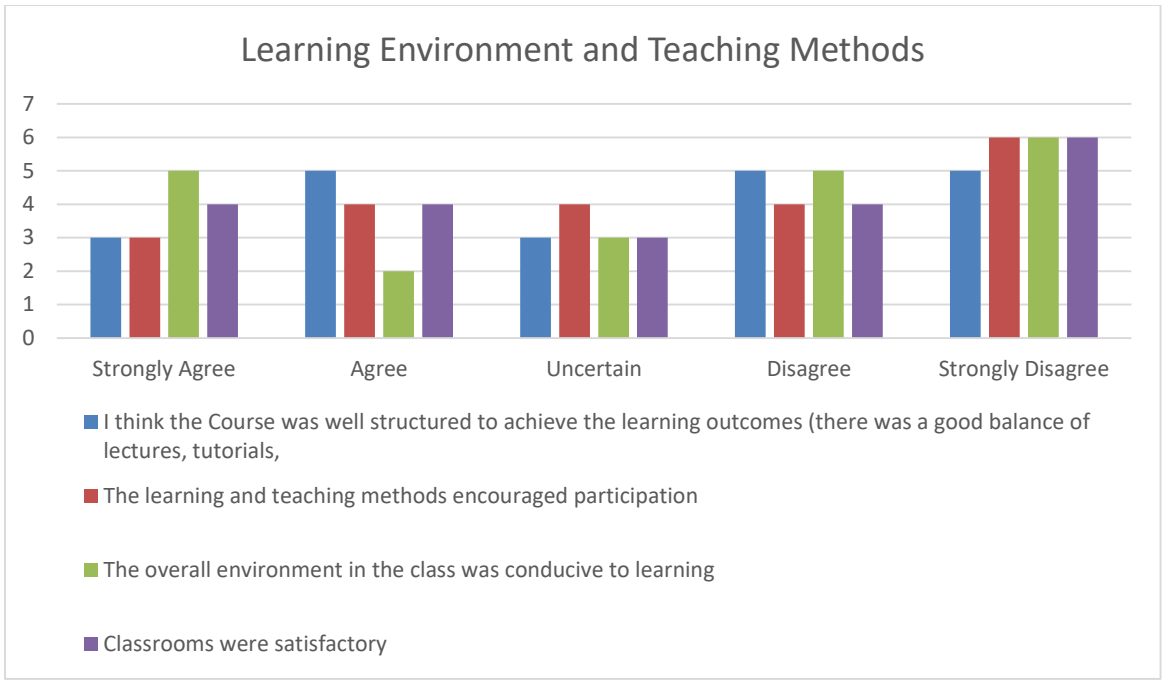
Mr. Abdi Saeed Khattak

Theory of Automata and Formal Languages






Learning Environment and Teaching Methods
7
6
5
4
3
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1
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Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
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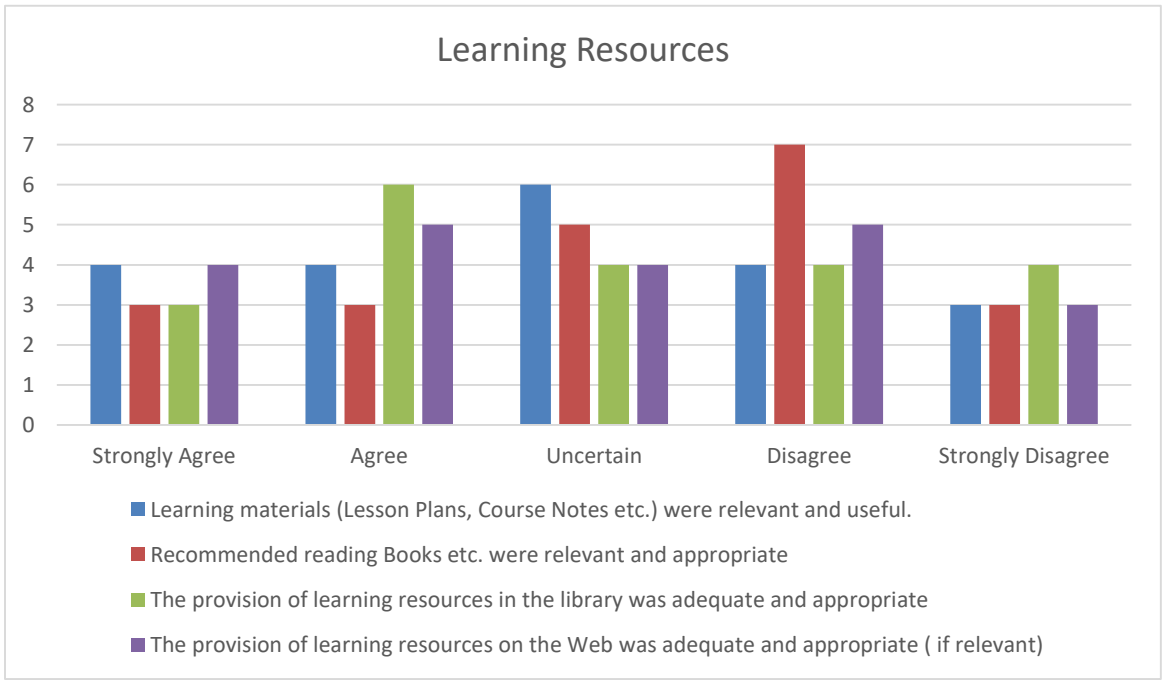
Learning Resources
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7
6
5
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0
Strongly Agree
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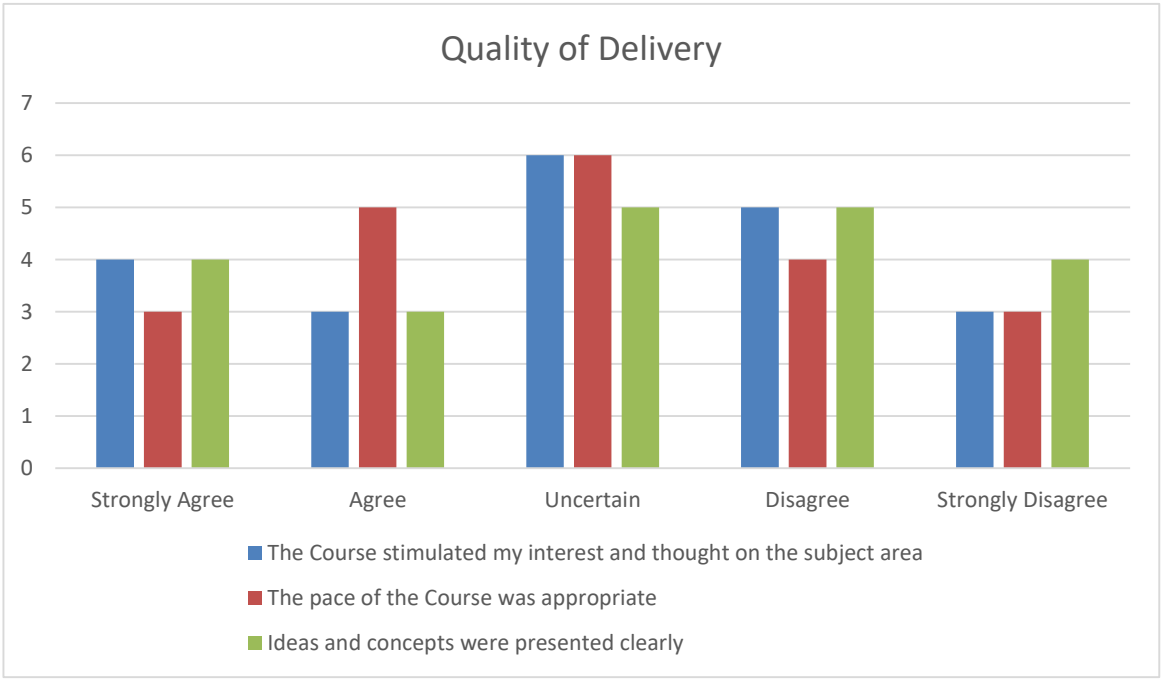
Quality of Delivery
7
6
5
4
3
2
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Strongly Agree
Agree
Uncertain
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Strongly Disagree
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The pace of the Course was appropriate
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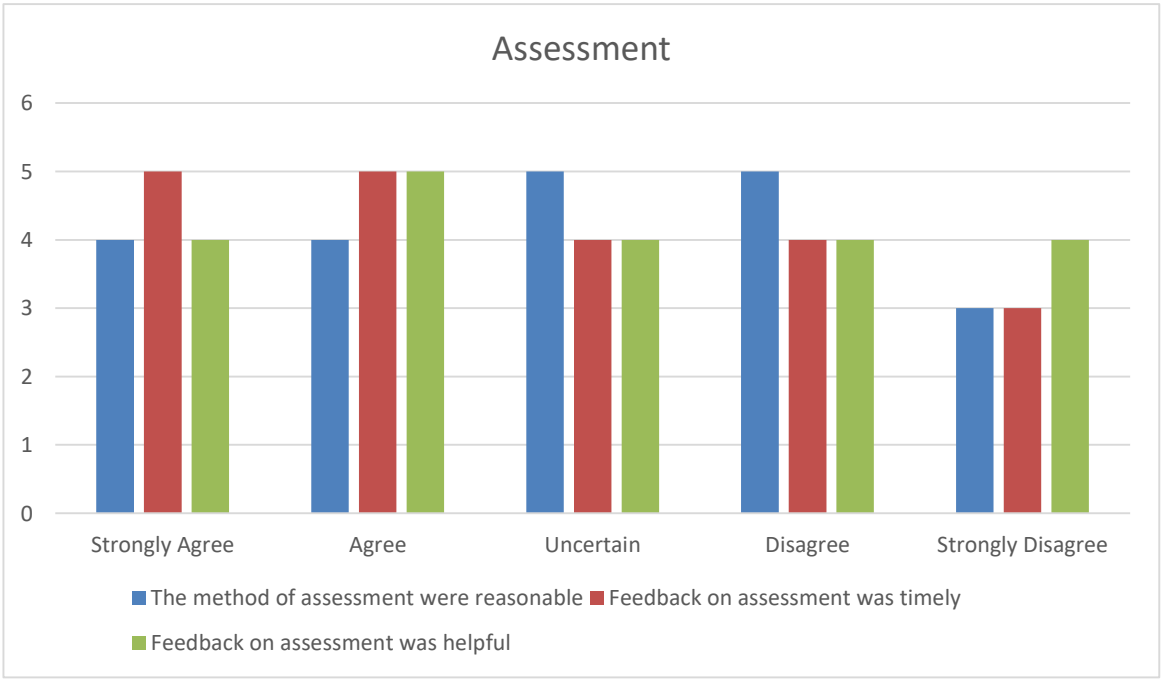
Assessment
6
5
4
3
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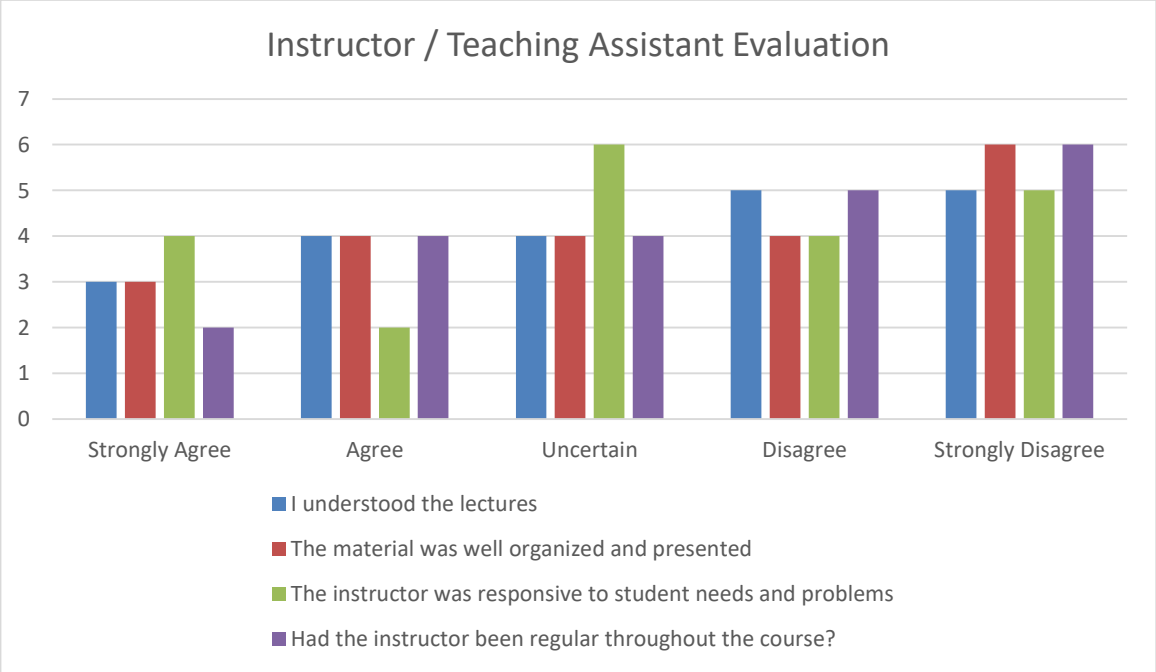
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The method of assessment were reasonable
Feedback on assessment was timely
Feedback on assessment was helpful


Instructor / Teaching Assistant Evaluation
7
6
5
4
3
2
1
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Strongly Agree
Agree
Uncertain
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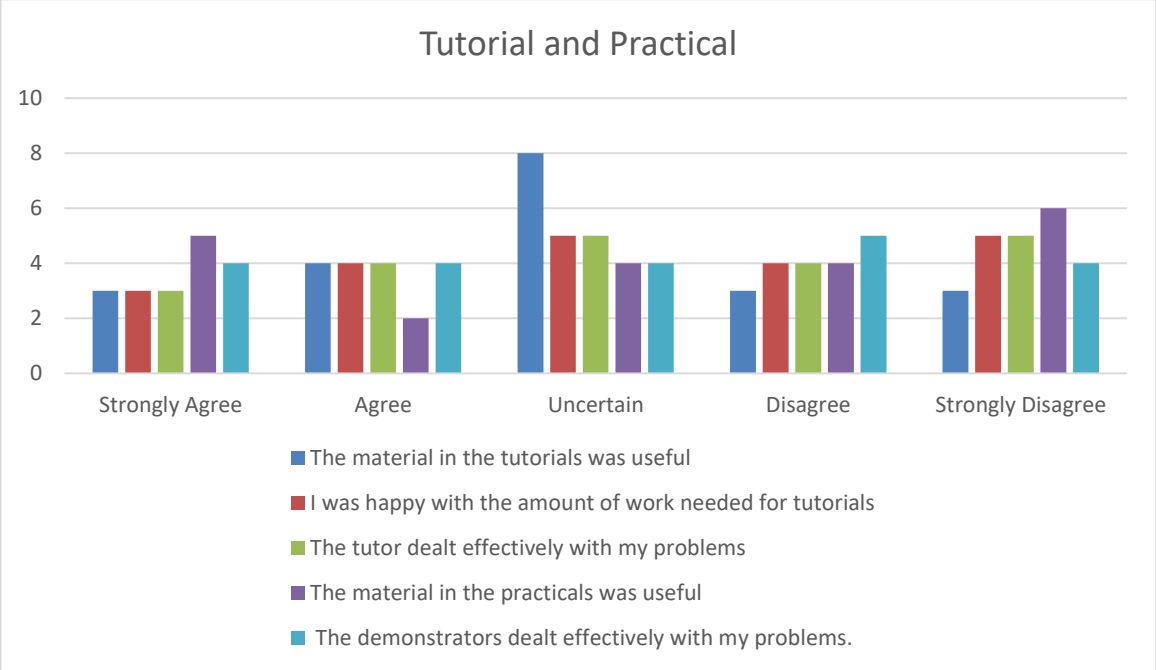
Strongly Disagree
I understood the lectures
The material was well organized and presented
The instructor was responsive to student needs and problems
Had the instructor been regular throughout the course?


Tutorial and Practical
10
8
6
4
2
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Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
The material in the tutorials was useful
I was happy with the amount of work needed for tutorials
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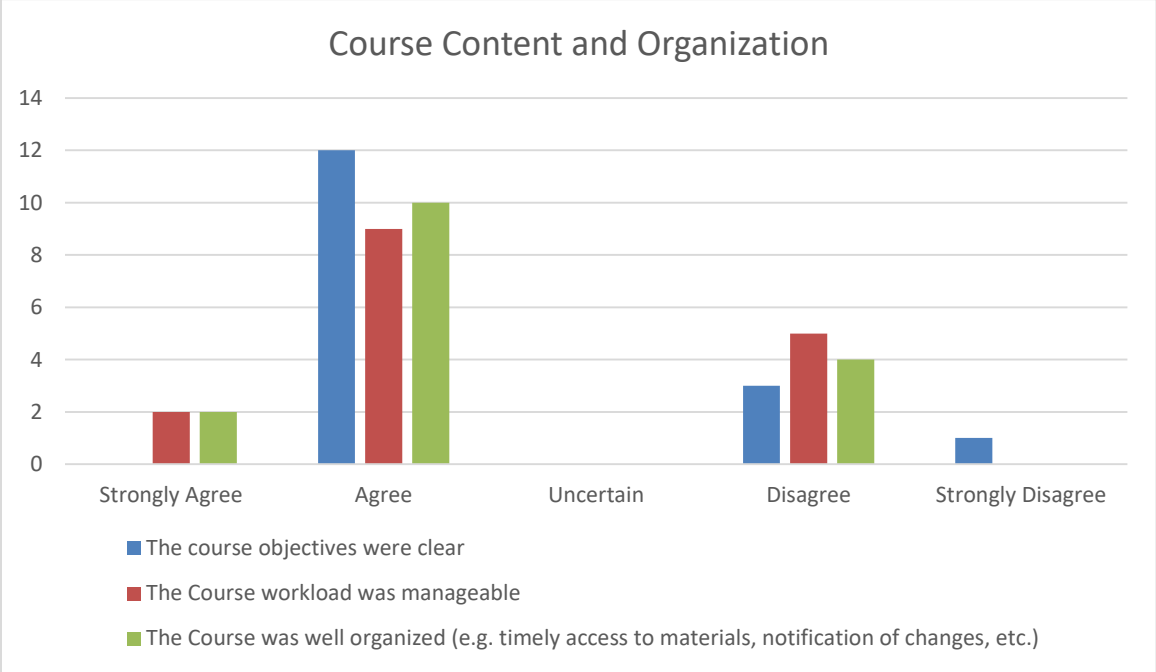
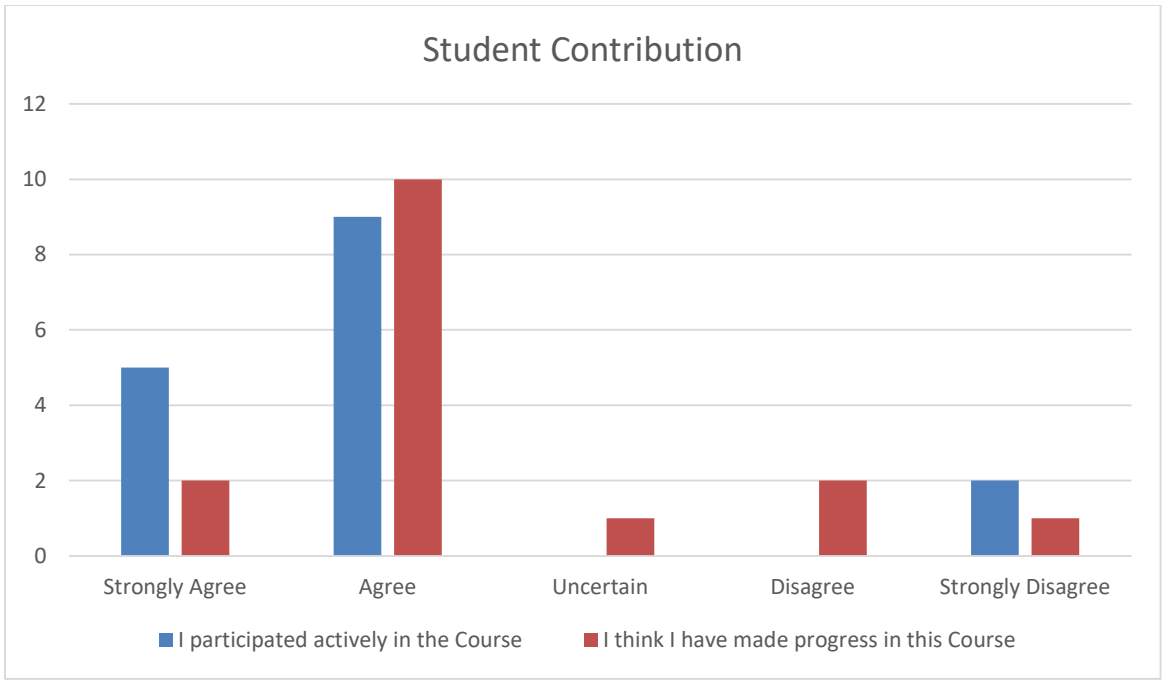
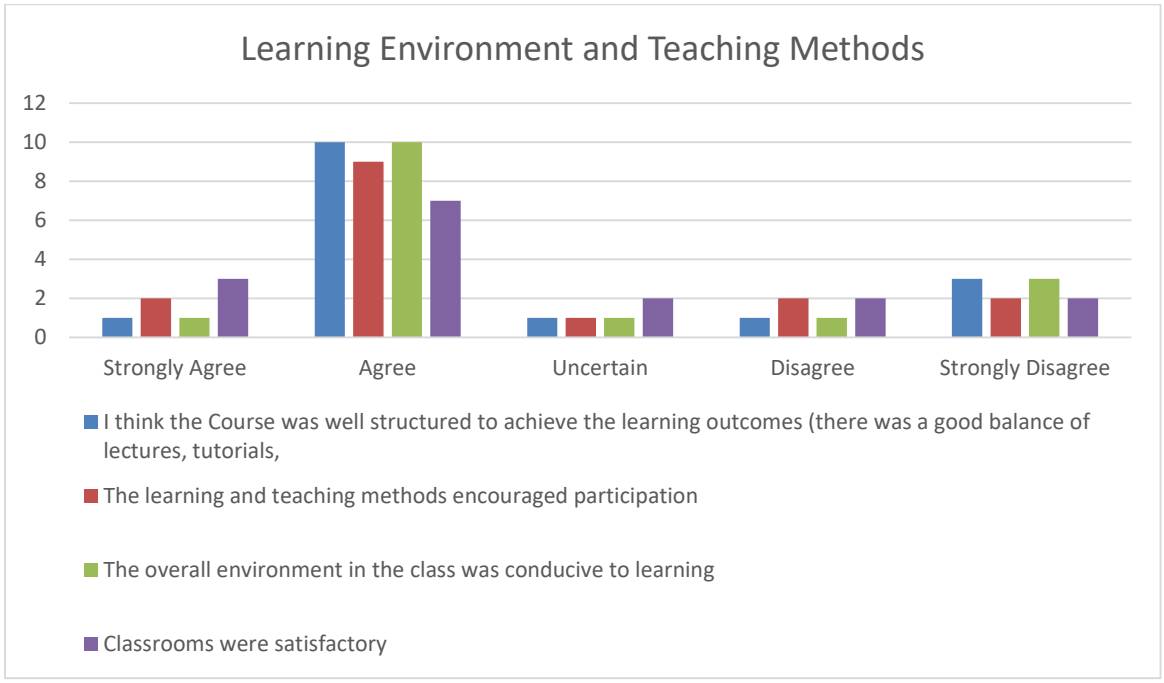
Mr. Waleed Ullah

Calculus and Analytical Geometry MATH101




Student Contribution
12
10
8
6
4
2
0
Strongly Agree
Agree
Uncertain
Disagree
Strongly Disagree
I participated actively in the Course
I think I have made progress in this Course


Learning Environment and Teaching Methods
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Strongly Agree
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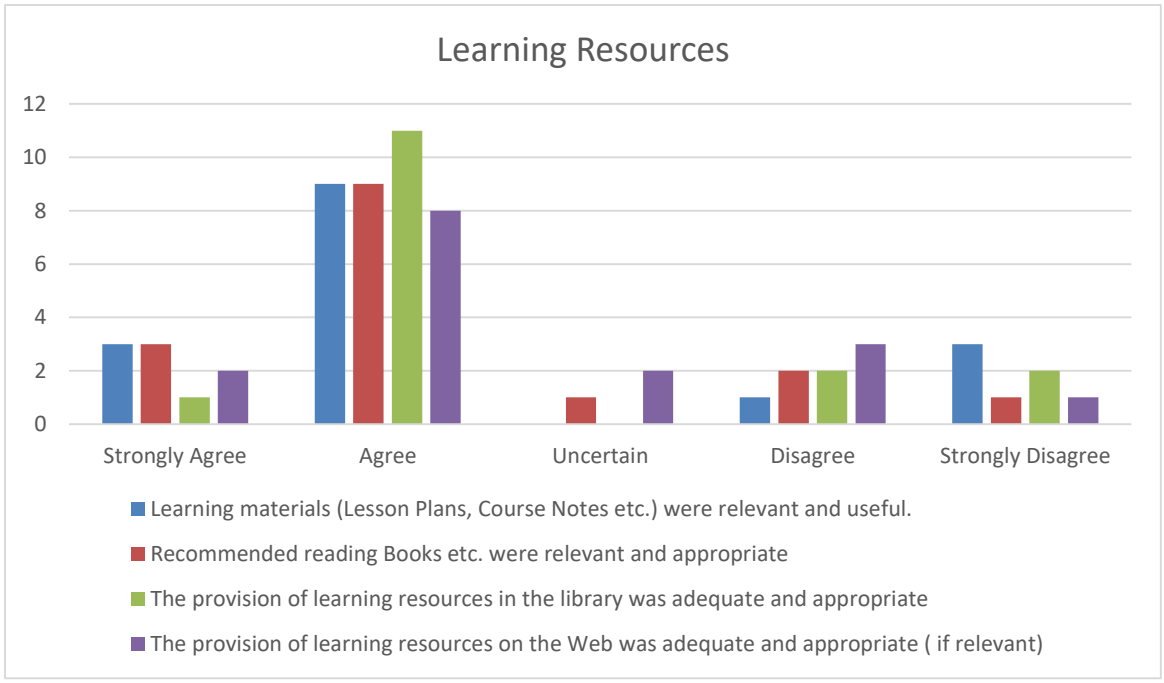
Learning Resources
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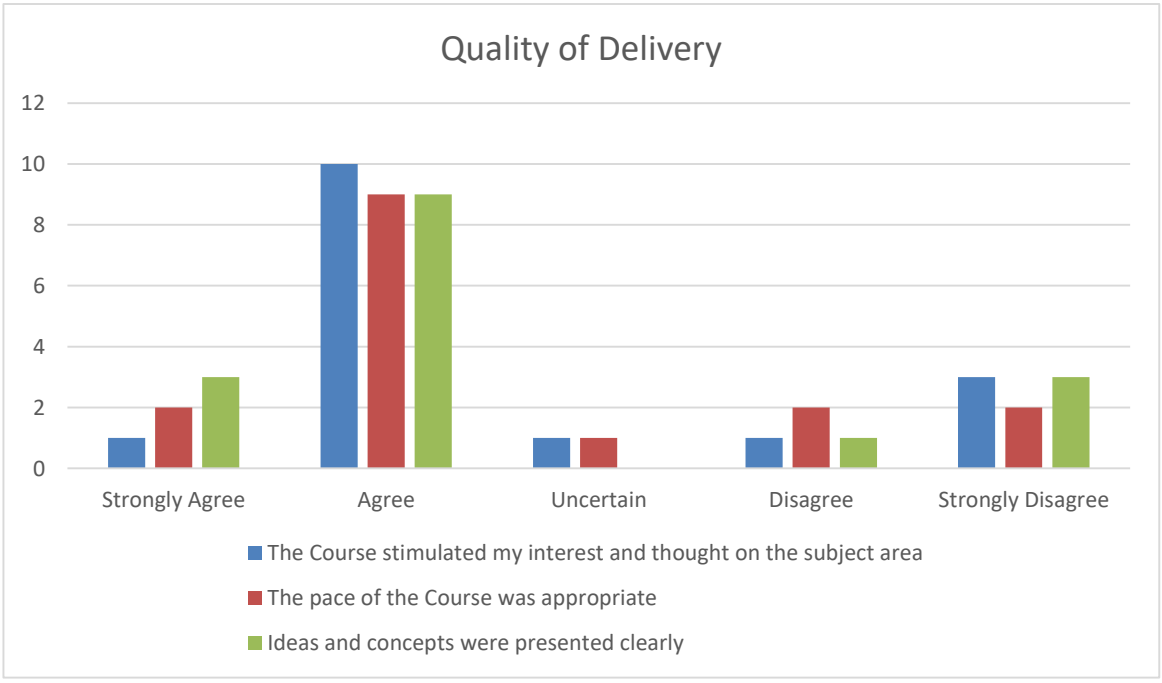
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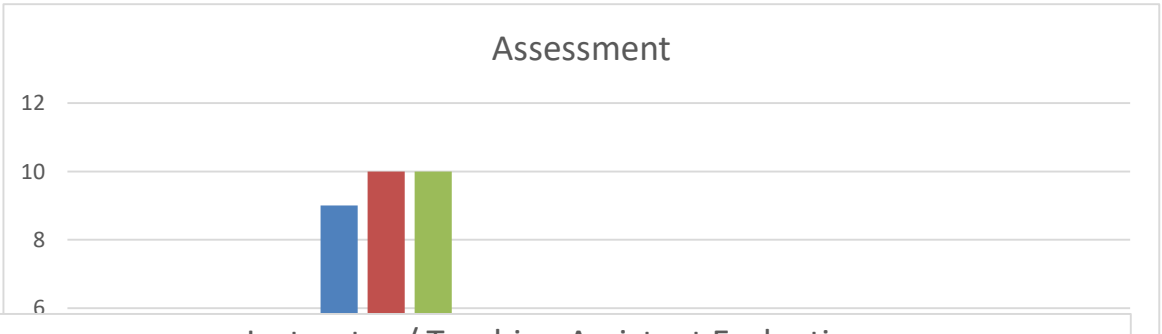
Assessment
12
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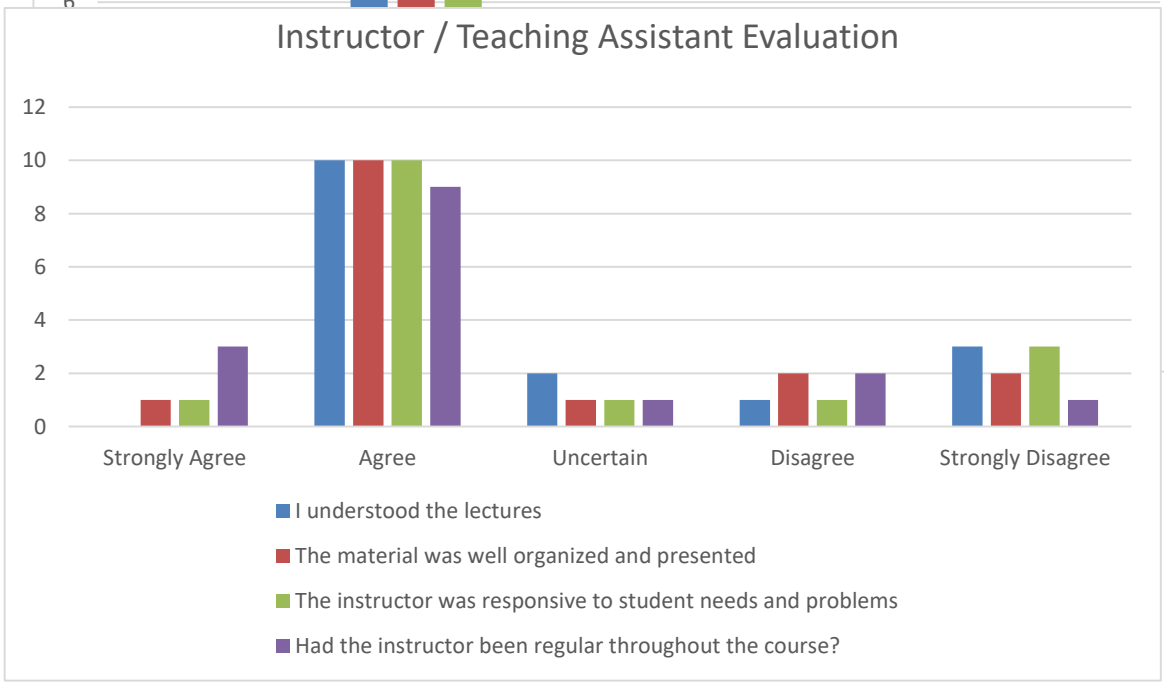
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Strongly Disagree
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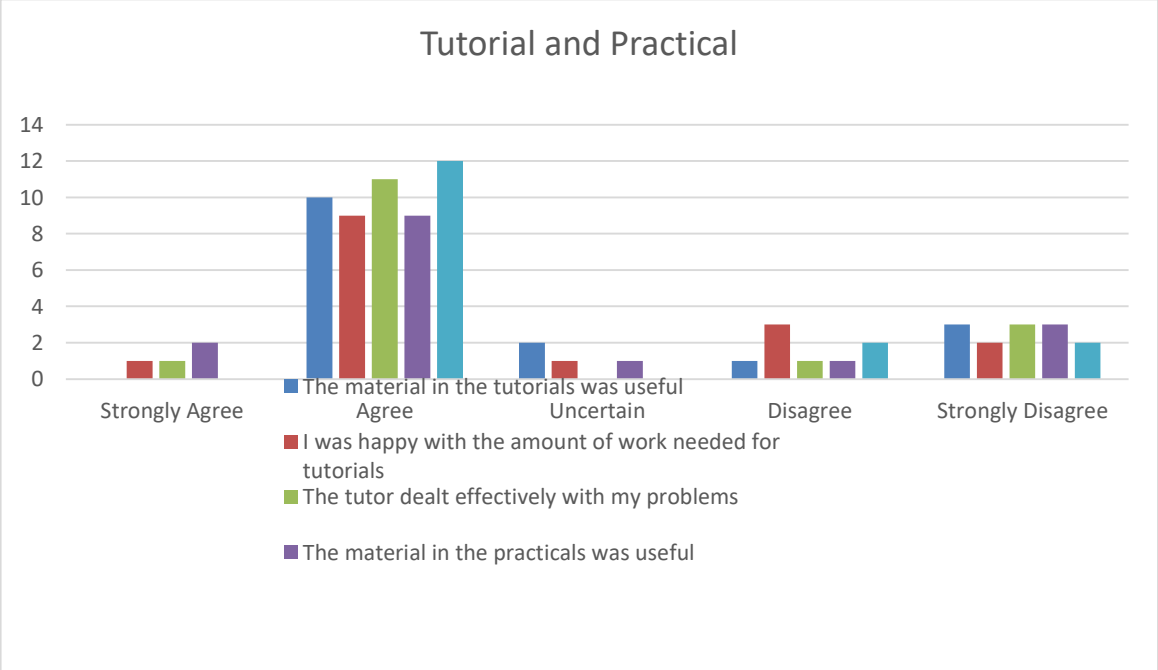
Annexure-II: Publications List

Muhammad Zubair, Kong Xiangwei, and SaeedMahfooz	DMAM: Distributed Mobility and Authentication Mechanism in Next Generation Networks	Security and Communication Networks	8(5)	845-863
Muhammad Zubair, Xiangwei Kong,	Integrating SIP with F-HMIPv6 to Enhance End-	Advances in Intelligent Systems and Computing	240	715-725



IrumJamshed, and Muhammad Ali.	to-End QoS in Next Generation Networks			
Muhammad Zubair, Xiangwei Kong, SaeedMahfooz, and IrumJamshed.	SIDP: A Secure Inter-domain Distributed PMIPv6	International Journal of Information and Electronics Engineering (IJIEE)	4(2)	103-110
Muhammad Zubair, Xiangwei Kong, and SaeedMahfooz	Cross-layer Localized Mobility Management based on SIP and HMIPv6 in Next Generation Networks	Journal of Communications	9(3)	217-225
Muhammad Zubair, Xiangwei Kong, and SaeedMahfooz.	Secure Session Mobility using Hierarchical Authentication Key Management in Next Generation Networks	Journal of Networks	9(5)	1121-1131
Muhammad Zubair, Xiangwei Kong, and SaeedMahfooz.	CLAM: Cross-layer Localized Authentication Mechanism based on Proxy MIPv6 and SIP in Next Generation Networks	Journal of Communications	9 (2)	144-156
Zubair, M.; Mahfooz, S.; Khan, A.; urRehman, W.; ,	Providing end-to-end QoS in Next Generation Networks (NGNs) using combined SIP HMIPv6 (CSH)	2011 IEEE International Conference on Computer Networks and Information Technology (ICCNIT		113-118
Jamil, S.; Jamil, S.; Ahmed, S.; Zubair, M.; Sikandar, F.,	COPE: Cooperative Power and Energy-efficient routing protocol for Wireless Sensor Networks,	2015 IEEE/ACIS 14th International Conference on Computer and Information Science (ICIS)		47-52

M. Amin, L. Song, X. Wang, M. Zubair, J. Hussain, T. Mohammad,	GPA: Graphical Interface Based Path coefficient analysis	8th Conference on Extreme Value Analysis, FudanUniversity, Shanghai, P.R. China		
Muhammad Zubair, Kong Xiangwei, and SaeedMahfooz,	SN-DMM: Secure Network-based Distributed Mobility Management	ETRI Journal (Submitted)		
Muhammad Zubair, Kong Xiangwei, SaeedMahfooz, IrumJamshed,	A Lightweight Reciprocal Authentication Mechanism to Secure Mobility in Next Generation Networks	IEEE System Journal (Submitted)		
Rehman.G*, Muhammad.S, Zia.A, Rehman.S and Asif.M	SCALABLITY ANALYSIS OF MPLS LABEL DISTRIBUTION PROTOCOLS RSVP	2nd International Conference on Computational and Social Sciences (ICCSS-2014)		
Rehman.S, **Rehman.G**, Haider.A, and Afzal.M.T	MEASURING THE RELEVANCY BETWEEN TAGS &CITATION IN SOCIAL WEB	Research Journal of Applied Sciences, Engineering and Technology		2040-7459
Rehman.G, Asif.M, Jan.R, Muhammad.S, and Ahmad.I	Simulation Based Study to Present the Performance of Ad-hoc Routing Protocols	International Journal of Innovation and Applied Studies	5(3)	261-268
Asif.M, **Rehman.G**, &Israr.U	Simulation based evaluation of a simple channel distribution Scheme for MANETs	*IOSR Journal of Computer Engineering (IOSR-JCE)*	12	55-62

Name of teacher	Designation	CrdHrs Break up			
		Course Code		Course Title	Crd. Hrs
Dr. Muhammad InamUlHaq	Head of the Department	1	CS468	Computer Vision	3
		2	CS101 (BSBI)	Introduction to Computing	3(2+1)
		3	CS700	Research Thesis	6
Dr. Muhammad Zubair	Assistant Professor / Controller of Examinations.	1	CS272	Data Communication and Computer Networks	4(3+1)
		2	CS101	Introduction to Computing (Deptt. Of Botany)	3(2+1)
		3	CS700	Research Thesis	6
Mr. Tariq Usman	Lecturer	1	CS313	Design and Analysis of Algorithms	3
		2	BS Zoology	Introduction to Computing	3(2+1)
		3	CMS Deptt.	Introduction to Computing	3(2+1)
		4	CS211	Data Structures and Algorithms (Theory)	4(3+1)
		5	CS491	Final Year Project (Phase –I)	3
Mr. Abid Saeed Khattak	Teaching Assistant	1	CS314	Theory of Automata and Formal Languages	3
		2	CS112	Discrete Structure	3
Mr. Shad Muhammad	Lecturer	1	English	Introduction to ICT Skills	3
		2	CS431	Computer Architecture & Organization	3
		3	CS312	Software Engineering	3
		4	Mgt. Sci BBA 5th	Management Information System(MIS)	3
		5	CS491	Final Year Project (Phase –I)	3
		1	BI101	Introduction to Biology	3(2+1)

Dr.Abdul Aziz	Assistant Professor/ H.o.D. Zoology	2	BI511	Advanced Molecular Biology	3
		3	BI500	Final year Project (Phase –I)	3
Dr. Noor ulHaq	Assistant Professor/ H.o.D. Botany	1	BI202	Biochemistry –I	3(2+1)
		2	BI512	Systems Biology	3
		3	BI500	Final Year Project (Phase –I)	3
Dr. Ghani Ur Rehman	Lecturer				

Annexure III: Faculty information w.r.t Classes

A. For Regular/ Contract Faculty Members only:

B. For Extra Courses (Over and above the allocation in table A)

S.No.	Discipline	Course Code	Course Title	Cr. Hrs	Remarks
	BS CS 1st Semester	CS101(BS CS)	Introduction to Computing	03	Dr.Muhammad Inam ul Haq (Assistant Professor)

01	BS Physics& BS Applied Physics 3rd Semester(Nanotechnology)	PHY-233	Introduction to Computing	03	Mr.Shad Muhammad (Lecturer)
02	BS CS 5th - Semester	CS 312	Operating System	4(3+1)	-do-
03	BS Mathematics	--	Computer Programming	03	Mr. Tariq Usman (Lecturer)
04	BS CS- 1st Semester	CS102	Introduction to Computer Programming	4(3+1)	-do-
05	MS BI -2nd Semester	BI521	Advanced Cell Biology	3	Dr. Noor ulHaq (Assistant Professor)
06	MS BI -2nd Semester	BI523	Functional Genomics	3	Dr. Abdul Aziz (Assistant Professor)
07	BSCS -7th Semester	CS319	Java Programming	3(2+1)	Mr. Arshad Iqbal (Visiting Lecturer)
08	BSCS- 7th Semester	CS242	Web Design & Development	3(2+1)	-do-
09	BSBI -3rd Semester	CS111	Object Oriented Programming	4(3+1)	-do-
10	BSBI -5th Semester	CS223	Database System	3(2+1)	-do-
11	BSBI- 7th Semester	CS457	Simulation and Modeling	3(2+1)	Mr. Abdullah Khan (Visiting Lecturer)
12	BS Zoology -3rd Semester	CS101	Introduction to Computer	03	-do-
13	BSCS -7th Semester	CS461	Human Computer Interaction	03	Mr. Waqar Ahmad Jan (Visiting Lecturer)
14	BSCS -5th Semester	CS333	Microprocessor & Assembly Language	3(2+1)	Mr. Waqar Ahmad Jan

					(Visiting Lecturer)
15	BSBI- 7th Semester	BI413	Scripting Language	3(2 +1)	-do-
16	BS Chemistry -3rd Semester		Introduction to Computer	3	-do-
17	BSBI -7th Semester	BI414	Proteomics	3	Dr. Siddiq Ur Rahman (Visiting Lecturer)
18	BSBI -5th Semester	BI312	Bioinformatics-II	3(2 +1)	-do-
19	BSBI -5th Semester	BI311	Biotechnology	3(2 +1)	-do-
20	MS BI -1st Semester	BI513	Advanced Bioinformatics	3	-do-
21	MS BI- 2nd Semester	BI522	Computational Proteomics	3	-do-
22	BSBI -7th Semester	BI412	Computer Aided Drugs Design	3(2 +1)	Mr. Abdul Wajid (Visiting Lecturer)
23	BSBI- 7th Semester	BI411	Human Molecular Genetics	3(2 +1)	-do-
24	BSBI -3rd Semester	BI201	Biostatistics	03	-do-
25	BSCS -1st Semester	IS106	Islamic studies	02	Mrs. Shahana Tariq (Visiting Lecturer)
26	BSBI- 1st Semester	IS106	Islamic studies	02	-do-
27	BS English -3rd Semester		Islamic History and Culture	03	-do-
28	BS Zoology - 1stSemester	RS101	Islamic Studies	02	-do-

29	BS Botany 1st Semester	RS101	Islamic Studies	02	-do-
30	BS Psychology 1st Semester		Islamic Studies / Ethics	02	-do-
31	BBA (Hons) 1st Semester		Islamic Studies	03	-do-
32	BSBI 1st Semester	BI-102	Elementary Chemistry	03	Course assigned to Department. Of Chemistry
33	BSBI- 3rd Semester	MG205	Principles of Management	02	Course assigned to Department of Management Sciences
34	BS CS- 1st Semester	STAT105	Statistic and Probability	03	-do-
35	BS CS-5th Semester	MG204	Human Resource Management	03	-do-
36	BSCS-1st Semester	MATH101	Calculus and Analytical Geometry	03	Course assigned to Department of Mathematics
37	BSCS- 5th Semester	MATH301	Linear Algebra	03	Course assigned to Department of Mathematics
38	BS BI – 1st Semester	MATH130	Basic Mathematics	03	-do-
39	BSCS-3rd Semester	CS232	Digital Logic and Design	03	Course assigned to Department of Physics
40	BSCS-3rd Semester	CS231	Basic Electronics	03	-do-
41	BSCS Repeater(s)	PHY101	Physics (Repeaters)	03	-do-
42	BSCS- 1st Semester	EG103	Functional English	03	Course assigned to Department of English
43	BSCS – 3rd Semester	EG204	Communication Skills	03	-do-

44	BSBI -1st Semester	EG103	Functional English	03	-do-
45	BSBI -3rd Semester	EG104	Technical and Business Writing	03	-do-

Dr. Muhammad INAM UL HAQ
Ph.D.
E-mail: inamix@gmail.com
Phone: 03339173835

OBJECTIVES:

Dynamic environment, where I can polish my skills, utilize energies and implement my innovative ideas. After completing my postgraduate research on the analysis of texture evaluation in LIP Framework, I am interested in continuing the same with a broader domain in Computer Vision and Stereo Vision while working in academia.

EDUCATION:

- **Ph.D. Image Processing** **Oct 2009- June 2013**

  Hubert Curien Research Laboratory, Jean Monnet University, France.

  Thesis Title: ***"Texture Analysis in the Logarithmic Image Processing"***

- **MS-IT** **2005 -2007**

  University of Peshawar, Pakistan.

  Thesis Title "*Radon Transform Based Real Time Sit and Herbicide Specific Weed Recognition System*"

- **M.Sc. (Computer Sciences)** **2001 -2003**
  University of Peshawar, Pakistan.

WORK EXPERIENCE:

- **Assistant Professor, Department of Computer Science and BioInformatics.** **Aug 2013 – to date.**
  Khushal Khan Khattak Univerisyt, Karak, Pakistan.
- **Lecturer, Department of Computer Science** **2004-2005**
  BRAINS Post Graduate College of IT, Peshawar, Pakistan.
- **Programmer** **2006 -2007**
  FC Foundation, FC HQrs, Sonehri Masjid Road, Peshawar, Pakistan.
- **Visiting Lecturer** **2007-2008**
  NationalBank Staff College, Peshawar, Pakistan.

ADMINISTRATIVE & OTHER EXPERIENCE IN THE UNIVERSITY:

- H.o.D. Computer Science &BioInformatics.
- In-charge of IT Section of the University.
- Convener Board of Studies of Computer Science &BioInformatics.
- Member of Academic Council of the University.
- Member Board of Advance Studies and Research.
- Member of the University Purchase Committee.

TRAININGS:

- IT Management
- Intellectual Property Rights
- Microsoft SharePoint

RESEARCH INTERESTS:

- Image Processing
- Texture Evaluation and Classifications

- Computer/machine vision,
- E-learning, E-management
- ICT for development

RESEARCH PUBLICATIONS:

JOURNAL ARTICLES:

1. Khan, M. Q., Andresen, S. H., **Muhammad InamulHaq**, "*Handover Architectures for Heterogeneous Networks Using the Media Independent Information Handover (MIH)*", Computing and Informatics, Vol. 35, 2016, 1001-1026.
2. InsafUllah , **Muhammad InamulHaq** et al, "*Proxy Sincryption Based on Hyperelliptic Curves"* , International Journal of Computer(IJC) (2016) Volume20 , No1, pp 157-166.
3. RehmanUllah , **Muhammad InamulHaq** et al, *"Object Tracking and Pose Calculation System for Mobile Augmented Reality, Using Natural Features"* ,Indian Journal of Scientific Research and Technology, Ind. J. Sci. Res. and Tech. 2015 3(1):pp40-50.
4. **Muhammad InamulHaq** and Michel JOURLIN *"Random Textures Classification thanks to Logarithmic Percolation"*, ISS (Image Analysis and Stereology) Journal. (in Process).

PROCEEDINGS IN INTERNATIOANL CONFERENCES:

1. **Muhammad InamulHaq**, Michel Jourlin , *Contribution of Logarithmic tools in texture evaluation*, ICS-13, October 19-23, 2011 Beijing, China.
2. **Muhammad InamulHaq**, Abdul MuhaminNaeem, Irshad Ahmad and Muhammad Islam, *Radon Transform Based Real Time weed Classifier*, in Computer Graphics, Imaging and Visualization, 2007. CGIV '07, pp.245,249, 14-17 Aug. 2007.
3. Abdul MuhaminNaeem, **Muhammad InamulHaq**, Irshad Ahmad, Muhammad Islam, Muhammad Qasim. *Radial Symmetry Based Real-Time Weed Classifier*. International Conference on Control, Instrumentation and Mechatronics Engineering (CIM'07), Johor Bahru, Malaysia, May 28-29, 2007.

POSTER PRESENTATION AT INTERNATIOANL CONFERENCES:

1. **Muhammad InamulHaq**, Muhammad Nawaz et al. Foreground Detection using Background Subtraction with Histogram, BMSB 2013
2. **Muhammad InamulHaq**, Michel JOURLIN and B. Abdallah, Tentative de classification de textures aléatoires par percolation logarithmique, 36ème journée ISS France, 7 février 2012.

GRANTS/AWARDS:

- Grant (by HEC Pakistan + i|msciencesPeshawar) of $1150.00 for participation in CIM 07, JoharBahro , Malaysia. 2007.
- HEC Pakistan Scholarship for PhD in France. From July 2008- Jan 2013.
- Grant of €2000.00 for participation in International Congress of Stereology (ICS-13) by CNRS France through Lab Hubert Curien, Université Jean Monnet France.
- H-E Bursaries Fellowship during ICS -13 in Beijing, Oct 2011.

Dr. MUHAMMAD ZUBAIR

Assistant Professor
KhushalKhanKhattakUniversity, Karak, Pakistan
E-mail: dr.muhammadzubair@kkkuk.edu.pk, **Mobile:** +92-3339402025

Telecommunication expert with vast experience in both academia and industry lines. An accomplished IT professional with demonstrated success implementing strategic. Takes initiatives that improve business functionality with positive impacts on the bottom line. Skilled project manager, with proven ability to lead and motivate teams to maximize productivity. Extensive experience in technology savvy, a self- starter, readily adepts new environments and extrapolate from existing experience to quickly acclimatize to new technology. Possess first- rate communications and collaboration skills to lead and work in concert with divers groups effectively.

QUALIFICATION HIGHLIGHTS

- Telecommunication Engineering
- Telecommunication Strategy Development
- Multiple Platform Networking
- Operations Management
- System integration
- Migration/ Upgrades
- Information Technology
- Project Management
- Technical Analysis

TECHNICAL EXPERTISE

Certifications: JNCIA-EX, JNCIA-ER, JNCIS-ER, MCSE, CCNA
Operating Systems: Android, Windows, Linux and UNIX.
Hardware: Raspberri pi 3**,** Wireless handheld devices (iPHONE, Samsung, Blackberry, Lenovo, Nokia, Cisco 4000m/3600/3000/2600/1600 series Routers, Cisco 2900 series Switches, 3Com &Netgear Switches, Hub, Laptops & Workstations & Servers (HP, Dell, Micron, Compaq, IBM), Raid, SCSI, Modems, Network Cards, Memory, Printers, Plotters, Scanners and other peripherals
Software: One Simulator**,** Opnet Simulation Tool, MATLAB, Endnote, Exchange 5.5 & 2000, Lotus Notes Client and Server R4 & R5, Rumba, Citrix Client & Server, Windows Terminal Server, MS Proxy Server, MS IIS Server, Pervasive SQL 7.0 & 2000, Cisco IOS, Seagate Backup Exec, McAfee, Norton, PC Anywhere, Reachout, MS Office Suit, Primavera Project Planner P3 2.0 & 3.0 , Visio 5.0 & 2000, Acrobat

Networks/Protocols:
MIPv6/FMIPv6/HMIPv6/ProxyMIPv6/SIP/LAN/WAN,TCP/IP,IPX/SPX,WLINK,NETBEUL,WINS,DNS ,DHCP,POP3,SMTP,FTP,TELNET,VPN,ICMP,RIP,NAT,IGRP,TFTP,Ethernet

EDUCATION

PhD in Communication and Information System (21 years) **2011-2014**
Faculty of Electronics and Electrical Engineering
DalianUniversity of Technology, China
MS in Computer Science (18 years) **2009-2011**
Department of Computer Science, University of Peshawar, Pakistan
Specialization in Computer Networks
Master in Computer Science (16 years) **2005-2007**
Department of Computer Science, University of Peshawar, Pakistan
Bachelor in Computer Science (14 years) **2003-2005**
University of Peshawar, Pakistan
Higher Secondary School Certificate (12 years) **2001-2003**
Federal Board of Intermediate and Secondary Education (FBISE), Islamabad, Pakistan
Secondary School Certificate (10 years) **1999-2001**
Federal Board of Intermediate and Secondary Education (FBISE), Islamabad, Pakistan

RESEARCH EXPERIENCE

Research Interests

- Wireless Communication
- Future Networks
- Internet of Things
- Mobile Networks
- Next Generation Networks(4G Networks)
- Social Networks
- QoS and Security in Next Generation Networks
- Mobility Management in Future Networks (Mobile IPv6, HMIPv6, IDMP, FMIPv6, Proxy MIPv6, Distributed Mobility Management)
- Application Layer protocol (Session Initiation Protocol)
- Combination of SIP with the above mentioned mobility protocols to enhance the QoS in NGN.
- Comparison of the above combinations in order to achieve single best combination which provides best performance among the all.
- Characteristics of Packets delays and characteristics of information rate in NGN.
- Protocol operation based performance analysis.

Publications

Muhammad Zubair, Kong Xiangwei, and SaeedMahfooz "DMAM: Distributed Mobility and Authentication Mechanism in Next Generation Networks," *Security and Communication Networks*, 8(5), (2015): 845-863: Science Citation Index Expanded (Thomson Reuters), Engineering Index (EI).

 Muhammad Zubair, Xiangwei Kong, IrumJamshed, and Muhammad Ali. "Integrating SIP with F-HMIPv6 to Enhance End-to-End QoS in Next Generation Networks," *Advances in Intelligent Systems and Computing*, 240, (2014): 715-725: ISI Proceedings (Thomson Reuters), Engineering Index (EI).

Muhammad Zubair, Xiangwei Kong, SaeedMahfooz, and IrumJamshed. "SIDP: A Secure Inter-domain Distributed PMIPv6," *International Journal of Information and Electronics Engineering (IJIEE)*, 4(2), (March, 2014): 103-110: Engineering Index (EI).

 Muhammad Zubair, Xiangwei Kong, and SaeedMahfooz. "Cross-layer Localized Mobility Management based on SIP and HMIPv6 in Next Generation Networks," *Journal of Communications*, 9(3), (March, 2014): 217-225: Engineering Index (EI).

 Muhammad Zubair, Xiangwei Kong, and SaeedMahfooz. "Secure Session Mobility using Hierarchical Authentication Key Management in Next Generation Networks" *Journal of Networks*, 9(5), (May, 2014): 1121-1131: Emerging Science Citation Index (Thomson Reuters), Engineering Index (EI).

 Muhammad Zubair, Xiangwei Kong, and SaeedMahfooz. "CLAM: Cross-layer Localized Authentication Mechanism based on Proxy MIPv6 and SIP in Next Generation Networks," *Journal of Communications*, 9 (2), (February, 2014): 144-156: Engineering Index (EI).

 Zubair, M.; Mahfooz, S.; Khan, A.; urRehman, W.; , "Providing end-to-end QoS in Next Generation Networks (NGNs) using combined SIP HMIPv6 (CSH)," *2011 IEEE International Conference on Computer Networks and Information Technology (ICCNIT)*, pp.113-118, 11-13 July 2011 doi: 10.1109/ICCNIT.2011.6020916

 Jamil S, Ahmed S, **Zubair M**, et al. "COPE: Cooperative Power and Energy-efficient routing protocol for Wireless Sensor Networks", IEEE/ACIS 14th International Conference on Computer and Information Science (ICIS'15), June 28 2015-July 1 2015, 2015.

 M. Amin, L. Song, X. Wang, **M. Zubair**, J. Hussain, T. Mohammad, "GPA: Graphical Interface Based Path coefficient analysis", *8th Conference on Extreme Value Analysis, Fudan University, Shanghai, P.R. China*, 8- 12 July, 2013.

Submitted Manuscripts

 Muhammad Zubair, Kong Xiangwei, and SaeedMahfooz, "SN-DMM: Secure Network-based Distributed Mobility Management", *Submitted to IEEE Access*.

 Muhammad Zubair, Kong Xiangwei, SaeedMahfooz, IrumJamshed, "A Lightweight Reciprocal Authentication Mechanism to Secure Mobility in Next Generation Networks", Submitted to *Computer Communications.*

Seminars/Workshops/Conferences

 Organized Session on "Technologies for Electronics and Communication Sector) in Third Annual Invention to Innovation Summit KP, 2017 at Peshawar in collaboration with Institute of Research Promotion, Pakistan Science Foundation, PASTIC, and South Asian Triple Helix Association

 Participated in Consultative Workshop on "University-Industry Collaborative Interactions: Policy and Practical Implications for Pakistan" on 4 January, 2017, Islamabad

 Organized Two Days workshop on “Mining Safety, 2017” at Kohat in collaboration with SMEDA

 Organized One Day workshop on “ Marketing Management, 2017” at Khushal KhanKhattakUniversity, Karak in collaboration with SMEDA

 Organized Session on “Technologies for Electronics and Communication Sector) in Second Annual Invention to Innovation Summit KP, 2016 at Peshawar in collaboration with Institute of Research Promotion, Pakistan Science Foundation, PASTIC, and South Asian Triple Helix Association

 Organized Two Days Workshop on “Olive Grafting, 2016” at Lower Dir in collaboration with Small Medium Enterprise Development Authority (SMEDA), Pakistan Oil Seed Development Board(PODB) and Olive Grower Association Dir.

 Organized Two Days Workshop on “freelancing, 2016” at Khushal KhanKhattakUniversity, Karak

 Organized Workshop on “Intellectual Property, Innovation, and Commercialization, 2015” at KhushalKhanKhattakUniversity, Karak

Attended training workshop on Intellectual Property Rights held on Oct 16-17, 2015, organized by HEC and IM Sciences, sponsored by World Bank.

 Attended Consultative Workshop on Commercialization of Technologies: Challenges & Way Forward held on 3rd November, 2015 at University of Haripur, KP.

 Presented “Are We Ready for Future Networks? Vision and Research Challenges of Future Networks”, ETIT- 2015

 Presented *“Secure Distributed Mobility Management based Future Networks: A Landscape of Competing Approaches”* Khushal KhanKhattakUniversity, Karak-2015

 Presented *“Secure Distributed Mobility Management based Future Networks: A Landscape of Competing Approaches”* Sarhad University-2015.

 Presented *“Secure Distributed Mobility Management Based Future Networks*”, ETIT-2013.

 Presented *“Enhanced EAP-Based Pre-Authentication in WiMAX Networks*”, School of Information and Communication Engineering, DalianUniversity of Technology, China, Jan, 2013

 Presented *“Intensifying QoS and Security in Next Generation Network*,” ETIT-2012.

 Presented *“Authentication Mechanism in NGNs”*, School of Information and CommunicationEngineeringDalianUniversity of Technology, Dalian, China.

 Presented *“Providing end to end QoS in NGNs using Combined SIP HMIPv6(CSH)”,* IEEE Conference ICCNIT-2011

PROFESSIONAL EXPERIENCE

KhushalKhanKhattakUniversity, Karak, Pakistan
18, May 2015 – Present
Assistant Professor

- Research and Teaching

22, Aug 2015 – 09-Feb, 2017
Director ORIC (Office of Research, Innovation & Commercialization)
SarhadUniversity of Science and Information Technology, Peshawar, Pakistan
Jan 2015 – 17 May, 2015
Assistant Professor
- Research and Teaching

Pakistan Air Force (Fazaia) DegreeCollege, Peshawar, Pakistan

Head of Computer Science Department (Aug 2008 – Aug 2011)/ Teacher (Feb 2006- Aug 2008)
Held multifaceted responsibilities to configure, install and administer network infrastructure and telecommunications systems that supported staff of 250 employees and 2500 students. Established net ITpolicies, which defined acceptable use of IT assets within the organization. Fulfilled administrative responsibilities including the additions and changes to user desktop, email and PBX accounts. Installed and configure servers including RAIDI & 5 arrays in addition to facilitating backup & restoration using NT utility. Configured and monitored status of printers utilizing HP jet admin in addition to upgrading printer firmware and handling installation of other peripherals. Actively provided desktop, configuration and phone support for software and hardware. Carried out full installation of Cisco routers and cabling for routers, switches, hubs and new workspaces.

 Three Labs each with 30 nodes were working under my supervision. We were running Both Linux (RHEL4) and Windows (2003 Advance server) machines for Web caching and domain controller, Exchange server respectively.
 Successfully engineered a Virtual Private Network (VPN) solution utilizing Windows 2000 Server.
 Effectively consolidated multi-domain Windows NT network into a single, homogeneous domain.
 We have established a LAN controlled by a Cisco 4000m series router and Cisco 2900 switches with efficiently working Access Controlled List.
 We were also connected with Pakistan Air Force Headquarters which are controlling all Fazaia colleges Database Software.
 Implementation of E-Testing in Fazaia Chains of Schools/Colleges in Pakistan.
 Teaching to Graduate Students.
 Supervision of Computer Science Department staff.
 Assessment and evaluation of Computer Science Department Staff

PakistanLiteracyDevelopmentCenter (PLDC)
Nov 2005 - March 2006
Project Manager
- Project Management and Training employees practically in Labs

Projects

KhushalKhanKhattakUniversity, Karak

- **Khushal Karak: Build Smart District Project**

KHUSHAL KARAK- Build Smart District Project has approved by the competent forum and is a step to bring a revolution in society through use of Information and Communication Technologies (ICTs). Under this project, the university will go for ICT enabled HUBs at local levels with the coordinated involvement of University, Students, Industry, Technology Partners, and Public Sector Departments at District level. Project would help to pool our strengths and resources in a target area and to utilize our strengths like Entrepreneur youth/students, to make a ' Success Story '.

- **Khushal Centre for Chinese Language and Culture**

KCCLC has got approval in response of China Pakistan Economic Corridor. KCCLC will cover a wide range of subjects of interest and intensive research to increase awareness about Chinese Language, socio-cultural, economic, and political system; promote bilateral relations, and most importantly provide strategic guidance in pursuit of common objectives both regionally as well as internationally. Pakistan China friendship has a bright future and CPEC is a step to make its stronger. This centre will contribute in terms of capacity building and will focus to resolve Environmental impact of the CPEC. Further, Language is a bridge that connects people and this Centre would play a key role in bringing the people of China and Pakistan close.

- **Intellectual Property Awareness Program (IPAP)**

IPAP has been approved by the competent forum and is a step to raise awareness of the protection of Intellectual Property Rights through patents, copyright, trademarks and industrial designs among students, faculty, and staff. The said initiative will help to protect and encourage innovations that are taking place in Khushal KhanKhattakUniversity. The University will organize different sessions to make aware the aforementioned audience about legal coverage while enforcing the trademark, copyright and patent infringement laws.

- **Olive Grafting, Plantation and Value Chain Program in District Karak**

Khushal KhanKhattakUniversity, Karak in collaboration with SMEDA and PODB initiated a comprehensive community mobilization program regarding olive grating, plantation and value chain. The

notables from communities after having exposure visits to Edible Olive Bearing districts are motivated to start the olive top working in their groves. Olive Pruning and Orchard Management trainings are conducted. This resulted a very positive change in community and started demanding olive grafting and plantation. Total of 1000 Plants are grafted at TarkiKhel and Speena of District Karak and till date 80% success are reported. Additionally, the olive orchards are initiated and around 1000 plants are planted at Latamber area, Khushal KhanKhattakUniversity, karak, and plantation at other areas of District Karak are in process

- **IoT Based Interactive Controlling of Campus Devices**

The project aims to manage all the electric/electronics devices remotely through smart phones. The management will be user oriented and devices themselves. By the user oriented means, an authenticated user will manage devices through app. And by the devices themselves means, different sensors will be used to sense the environment and as per analysis of data in clouds, devices will take decision.

- **Pashto Speech Recognition System to Control Computer Programs**

This project aims that the user will interact with the computer and control programs remotely through Pashto language. Speech recognition technique is used to recognize the commands given in Pashto and then convert them into understandable form provided to the software (for performing the action) as input. The user will have freedom from clicking the menus, button etc and can manage the Computer programs remotely. Pashto dictionary is developed to assist the system in recognizing the Pashto vocabulary.

• Pakistan Air Force, Peshawar, Pakistan

- My job was to establish a secure and reliable network. I have managed a 90 node network for 40 days in which candidates were registering and giving online test.
- SIMS (Student Information Management System) Management.
- I have assigned to implement E-Testing in Fazaia Chains of School/Colleges.
- Implementation of **EUREKA** software in Pakistan Air Force Chains of Schools and Colleges.
- Arranged and Supervised In-Service Teacher Training program summer 2007 in PAFDegreeCollege, Peshawar

- Arranged and Supervised In-Service Teacher Training program summer 2008 in PAFDegreeCollege, Peshawar.

- Arranged and Supervised In-Service Teacher Training program summer 2009 in PAFDegreeCollege, Peshawar.

- Arranged and Supervised In-Service Teacher Training program summer 2010 in PAFDegreeCollege, Peshawar.

• P.A.F Teacher Training Institute, Islamabad

- Suggested and made a frame work to implement Oxford Syllabi for Computer Science in FAZAIA Chains of Schools/Colleges in Pakistan.

- I have assigned to make Computer Science Papers for exams.

Library Information Management System, CentralLibraryUniversity of Peshawar

- Coding and Designing of software for central Library University of Peshawar.

Intel Education , Pakistan as Master Trainer

- I trained staff members of my institution (Pakistan Air Force Degree College Peshawar, Pakistan) about using computer technologies which includes Microsoft PowerPoint, Microsoft Word, internet and digital encyclopedia. Then I have trained them how to use these technologies in teaching practices.

Supervision

PhD Scholars One (In Progress)
MS Scholars Three (In Progress)
Undergraduate Eight (Graduated) Three (In Progress)

Established Industry/Academia Linkages

- KP Oil and Gas Company Limited (Signed)
- The Bank of Khyber
- Oil and Gas Company Limited (OGDCL), Pakistan
- Small & Medium Enterprise Development Authority (SMEDA)
- Olive Grower Association Dir
- Pakistan Oilseed Development Board
- Gypsum Industry, Karak
- WuhanUniversity of Technology, China
- DalianUniversity of Technology, China
- GhulamIshaq Khan Insititute (GIK), Pakistan

Achievement

- Got the title of Entrepreneurial Scientist along with the inclusion to the list of Top Twenty Entrepreneurial Scientists by South Asian Triple Helix Association (SATHA), published in the Book "Entrepreneurial Scientists-serving Science and Society"
- South Asian Triple Helix Association (SATHA) Award in 3rd Invention to Innovation Summit KP, 2017
- Technology Award for the project "IoT based Interactive Controlling System of Devices" in 3rd Invention to Innovation Summit KP, 2017
- Technology Award for the project "Pashto Speech Recognition System" in 3rd Invention to Innovation Summit KP, 2017
- Technology Innovation Award in Second Annual Invention to Innovation Summit KP, 2016
- Established Office of Research, Innovation & Commercialization at KhushalKhanKhattakUniversity, Karak
- Established Khushal Business Incubation Centre at KhushalKhanKhattakUniversity, Karak
- Twice appreciated by the Syndicate, Khushal KhanKhattakUniversity, Karak for initiating business startups.
- Obtained Chinese Government Scholarship for PhD
- Selected in youth delegation Pak-China Youth Exchange Program by the Ministry of Youth, Government of Pakistan.
- Best employee for the year 2008-2009 by Base Commander P.A.F Base Peshawar.
- Position Holder in Master of Science - Computer Science
- Position Holder in Bachelor of Science - Computer Science

Membership

- Member of Academic Council, KKKUK
- Secretary Annual Report Preparation Committee, KKKUK
- Secretary University Infrastructure Need Assessment Committee, KKKUK
- Secretary Research Journal Committee, KhushalKhan KhanKhattakUniversity, Karak
- CoordinatorDalianUniversity of Technology (DUT) Pakistan Alumni Association
- Vice President International Students Association, DalianUniversity of Technology, China
- Chairman, International Voices, DalianUniversity of Technology, China
- Member, IEEE
- Member of Doctor's Association Dalian University of Technology, Dalian China.
- Member of Future Youth Group Pakistan as General Secretary for Khyber Pukhtunkhwa.
- Member of Career Management Society Pakistan.
- Former Member of IT SocietyUniversity of Peshawar.

Languages

- Pashto
- English
- Urdu
- Chinese

Personal Information

Father Name: Abdul Hameed
Date of Birth: February 1, 1986

Marital Status: Married

References

Prof. Kong Xiangwei (Ph.D)
School of Information and CommunicationEngineeringDalianUniversity of Technology, Dalian, China
E-mail: Kongxw@dlut.edu.cn
Cell: 008613019459205
Prof. Dr. SaeedMahfooz
Department of Computer Science,

University of Peshawar, Pakistan
E-mail: saeedmahfooz@upesh.edu.pk

Dr. Ghani-ur-rehman

Objective

To secure a responsible position in a reputable organization to flourish my knowledge and capabilities in a team based environment and coordinate efforts in order to achieve personal aims, contributing to organizational overall success.

Personal Information

Name:	Ghani-ur-rehman
Father Name:	Aziz-ur-rehman
Date of Birth:	05-02-1984
Domicile:	Karak (KPK, Pakistan)
N.I.C:	14203-5001032-9
Religion:	Islam
Marital Status:	married

Contact Information

Cell: 0344-9464273

Phone# 0304-9269696

Email: Ghani.rehman@kkkuk.edu.pk

Present Address: Lecturer Computer Science, KhushalKhanKhattakUniversity, Karak, KPK, Pakistan.

Permanent Address: Village Warana Mir Hassan Khel P/o Warana Tehsil Takhat-e-NasratiDistt Karak.

Academic Qualifications

PhD inComputer Science Session2012-2015

Department of Computer Science,

International Islamic University, H-10 Islamabad.

Division **1st(CGPA 3.5)**

Status: (Course work completed)

MS in Computer Science Session 2008-2011

Department of Computer Science,

International Islamic University, H-10 Islamabad.

Division **1st(CGPA 3.85, 80%)**

BS 4 years in Computer ScienceSession 2002 - 2006

Kohat University of Science & Technology, Kohat.

Division **1st(3387/4400, 78%)**

F. Sc (Pre-Engineering) **Session 2000-2002**

BISE, Kohat.

GPG College Kohat.

Division: **1st (748/1100 68%)**

SSC (Science) **Session1999-2000**

BISE, Peshawar

Hira High School, Karak.

Division: **1st (549/850, 65%)**

MS Thesis

"A Packet Drop Guesser Module for Congestion Control Protocols for High Speed N/w"

Research Publications

1. **Rehman.G**, Asif.M, &Israr.U ;(2013). "Improvement of congestion window and link utilization of High Speed protocols through K-NN Module", *IOSR Journal of Computer Engineering (IOSR-JCE),* vol 12, PP 25-30.**(Published)**

2. **Rehman.G**, Asif.M, &Israr.U; (2013). "A packet drop guesser module for congestion control Protocols for high speed networks" *International Journal of Computer Science, Engineering and Information Technology (JCSEIT), vol 3, PP 21-32.* **(Published)**

3. Asif.M, **Rehman.G**, &Israr.U; (2013). "Simulation based evaluation of a simple channel distribution Scheme for MANETs" *IOSR Journal of Computer Engineering (IOSR-JCE),* vol 12, PP 55-62.**(Published)**

4. Khan.I, Usman.I, Usman.T, **Rehman.G**, Rehman. A. (2013). "Intelligent Churn prediction for Telecommunication Industry," *International Journal of Innovation and Applied Studies*, vol. 4, pp. 165–170, September 2013.**(Published)**

5. **Rehman.G***, Muhammad.S, Zia.A, Rehman.S and Asif.M (2014). "SCALABLITY ANALYSIS OF MPLS LABEL DISTRIBUTION PROTOCOLS RSVP", 2nd International Conference on Computational and Social Sciences (ICCSS-2014), 254-259. **(Published)**

6. Rehman.S, **Rehman.G**, Haider.A, and Afzal.M.T, (2014)."MEASURING THE RELEVANCY BETWEEN TAGS &CITATION IN SOCIAL WEB", Accepted in Research Journal of Applied Sciences, Engineering and Technology, ISSN: 2040-7459 , ISI Indexed. **(Published)**

7. **Rehman.G**, Asif.M, Jan.R, Muhammad.S, and Ahmad.I (2014). "Simulation Based Study to Present the Performance of Ad-hoc Routing Protocols", International Journal of Innovation and Applied Studies ISSN 2028-9324 Vol. 5 No. 3 Mar. 2014, pp. 261-268.

Accepted Papers for Publications

1. Usman.T,**Rehman.G**, Muhammad.S, Taj.F; (2013) "Performance Enhancement Handover of VoIP Application Wireless LAN IEEE 802.11n" *Journal of Computing, USA,*vol 5.**(Accepted)**

1. Muhammad.S, **Rehman.G**,Usman.T, Taj.F; (2013) "Simulation Based Evaluation of Routing Protocols for Ad Hoc Networks"*Journal of Computing, USA,*vol 5. **(Accepted)**

hing Interests

At under graduate level

- Data Communication, Computer Networks, Operating System, Data Base, C++, Automata Theory, Software Engineering.

At Graduate level

- N/w communication, Wireless Communication, Satellite Communication, Adhoc& Sensor Networks.
- Research Methods

Job Experience

- Network Assistant in Higher Education Department Peshawar (2007-2008) under NIP.
-
- Contract Lecturer (Computer science) in Federal Urdu University of Science, Arts and Technology, Islamabad from Jan 2012 to Jan 2013.
- Head of DepartmentComputer Science KhanKhattakUniversity, Karak from Jan 2013 to Jan 2014.
- Currently working as Lecturer (Computer Science) in Khushal KhanKhattakUniversity, Karak from Jan 2013 till date.

Hobbies and Languages

Hobbies:

- Studying books
- Internet surfing
- Game (Cricket)

Languages:

- English
- Urdu
- Pashto

Professional Training

(1) MCSE (Corvit Institute Islamabad)

(2) CCNA (Corvit Institute Islamabad)

REFERENCES

Will be furnished on demand.

TARIQ USMAN

+92-346-7867280
tariq_star75@hotmail.com
tariq.usman@kkkuk.edu.pk

MS Computer Science

More than 08 year teaching and professional experience

CAREER OBJECTIVE/ FUTURE PLAN

To achieve dynamic position in an esteemed institution /organization of professional being that correlates with my occupational skills and offer challenging opportunities. I look forward to fully utilize my professional skills and enhance my learning capabilities, to transfer my research and theoretical knowledge, technical skills, training and related experience to students and technical people.

EXPERIENCE

EXPERIENCE

Lecturer in CS

I am working as Lecturer in department of computer Science Khushal Khan Khattak University Karak Khyber PakhtunKhwa Pakistan(PublicSectorUniversity) since 06 Feb,2013 to date.

Major Responsibilities:

- To teach at undergraduate and graduate level in areas allocated by the Head of Department and reviewed from time to time by the Head of Department.
- To contribute to the development, planning and implementation of a high quality curriculum.
- To assist in the development of learning materials, preparing schemes of work and maintaining records to monitor student progress, achievement and attendance.
- To participate in departmental and faculty seminars aimed at sharing research outcomes and building interdisciplinary collaboration within

and outside the department.

- To participate in the development, administration and marking of exams and other assessments.
- **Extra Responsibilities : Staff Proctor , QEC member**

Technical Assistant

I have worked as Technical Assistant in Automation Project Central Directorate of National Savings Govt. of Pakistan from 31 October 2011 to 04 Feb,2013

Responsible for:-

- Installing hardware and software
- Maintaining Oracle 10g database
- Installing Operating Systems
- Resolved all IT issues
- Troubleshooting
- Inventories of IT and Electric equipments
- Creating logs of Servers and Generators
- IT Training to manual staff and DEOs
- Quick response to DEOs
- Making reports on daily and monthly basis
- Database backup

IT Officer

I have worked as IT Officer in CANDLE Organization since 02 February, 2011 to 25 October 2011

Responsible for:-

- System maintaining and upgrading
- Data Analysis ,
- Purchasing all IT equipments
- Handles all network and Internet problems
- Estimation (Financial Proposal writing)
- Website handling
- Training to IT assistants and Database Assistant

System Administrator

I have worked as System Administrator in Fazaia Inter College E-9 PAF Complex AHQ Islamabad from 11 November, 2008 to 31 January 2011.

Responsible for:-

- Installing and Managing Servers
- Maintaining and Upgrading Servers
- Configuring and Managing Switches and Routers

- Trouble Shooting all Software ,Hardware & Network Problems
- Managing Student Information Management System Software
- Managing ,Backup and Run Queries on SQL Database System
- Availability of Internet on all computers
- Installing Hardware and Software
- Installing Windows and Linux Operating Systems
- Installing and Updating Antivirus
- Backup of official data on weekly and monthly basis
- Handle PAF E-mail and Intranet System
- Availability of Printer / Multimedia / Scanner / Computer any where require for college activities/functions
- Responsible of emergency SMS to all staff and students through Internet (SIMS module)
- Training of Technical people to use Student Information Management System software and computer effectively
- Purchasing of all IT equipments for college
- Letters correspondence of college
- Analysis of college data: students/staff wise, expenses/loss and profit wise
- Presentation for Principal
- Incharge for e-testing examination in college by AHQ
- Responsible of all IT tasks.

IT Assistant

I have worked as IT Assistant in Relief International from 02 April, 2007 to 31 December, 2007

Responsible for:-

- Operating System Installation and Maintaining
- Antivirus installation and updating
- MS Office work
- Software and Hardware Installation
- Multimedia Setting

TRAINING

TRAINING

Name of Institution	Type of Training	Duration	Certificate
KhushalKhanKhattakUniversity Karak And HEC	Professional Competency Enhancement Program	One month	Yes

Directorate of Information	Train the Trainer CCNA	One month	Yes

Technology Khyber Pakhtunkhwa Govt. , Pakistan			

EXTRA SKILLS

- MCSE Corvit System F-6 Islamabad
- CCNA Corvit System F-6 Islamabad
- Desktop Technologies and Web Technologies
- Spoken English Language Course British Training Council , F-8 Islamabad
- MS Office
- MS Project

ACADEMIC QUALIFICATIONS

Degree/Certificate	Subjects/Courses	Year	Institute/Board	CGPA /Division
MS(CS)	Computer Science	2008-2010	IqraUniversity, Islamabad.	3.09/1st
BS(IT)	Information Technology	2003-2007	Gomal University D. I. Khan	1st
HSSC	Pre-Medical	2002	GovtCollegeKohat. BISE Kohat	1st
SSC	Science	2000	BISE, Peshawar.	1st

RESEARCH & PROJECT

Projects:

BS Final Year Project:

Developed a Desktop Application for WAPDA Customers Billing System for District Karak
Programming Language: VB 6.0, SQL Database, and Crystal Reports

MS Research Thesis:
Study of Transport Layer Handover of VoIP Application over Wireless LAN (IEEE 802.11g)
Networking Simulation Tool: - NS-2, OS: - Red Hat Linux Server Enterprise 5.2 Edition

Research Article:

1. Khan.I, Usman.I, **Usman.T**, Rehman.G, Rehman. A. (2013). "Intelligent Churn prediction for Telecommunication Industry," *International Journal of Innovation and Applied Studies*, vol. 4, pp. 165–170, September 2013. (Published)
2. **Usman.T**, Rehman.G, Muhammad.S, Taj.F; (2013) "Performance Enhancement Handover of VoIP Application Wireless LAN IEEE 802.11n" *Journal of Computing, USA,*vol 5. (Accepted)

3. Muhammad.S, Rehman.G,**Usman.T**, Taj.F; (2013) "Simulation Based Evaluation of Routing Protocols for Ad Hoc Networks" *Journal of Computing, USA,*vol 5. (Accepted)

LANGUAGES KNOWN

- English (Write/Read/Speak [Excellent])
- Urdu (Write/Read/Speak [Excellent])
- Pashto (Mother Tongue)

PERSONAL INFORMATION'S

Father's Name: Muhammad Saboor

Domicile: Karak (Khyber Pakhtunkhwa, Pakistan)

REFERENCES

R E S U M E

ABDULLAH KHAN

S/O AMAL DAD KHAN

Date of Birth: 01-04-1989

N I C No: 11101-6188569-1

Nationality: Pakistani

Religion: Islam

Gender: Male

Domicile: F .R Bannu

Marital Status: Unmarried

Contact Number :0342-9500643

Email Address: abdwz@yahoo.com

Address:

Village Sar Dhal Khel , P/O QammarKilla, TehDomel, DistBannu,

(Khyber Pakhtunkhwa) Pakistan.

OBJECTIVE:

I believe in devotion to work hard and testing my professional knowledge in creating opportunities in any competitive environment.

ACADEMIC QUALIFICATION

Exam	Session	Marks Obtained	Annual/ Supply	Div / Grade	Board / University

S.S.C	**2004**	**601/850**	**Annual**	**1st Div (71%)/A**	**B.I.S.E Bannu**
F.SC	**2006**	**695/1100**	**Annual**	**1st Div (63%)/B**	**B.I.S.E Bannu**
BSCS(Hons) 4 –year	**2006-2010**	**3218/4100**	**Annual**	**1st Div (78%)/A**	**UST Bannu**

EXTRA QUALIFICATION

Exam	MarksObtained	Div / Grade	Board / University
MS in Computer Science	**3.16/04 GPA**	**1st Div(79%)/A**	**IIT, KUST**

PROFESSIONAL QUALIFICATION

Exam	Session	Marks Obtained	Annual/ Supply	Div/Grade	Board / University
B. Ed	**2013**	**886/1200**	**Annual**	**1st Div (73%)/A**	**SUIT Peshawar**

EXPERIENCE

1- 6 years and 2 monthsexperience as a Computer Instructor(BPS-16) Cum Computer Lab Incharge and WWB MIS Operator in WFGHSS-Karak(Male).

2- 2 years experience of working on different projects with university students.

COMPUTER-RELATED SKILLS

- Great Command of SQL Server(2000 & 2005)
- Visual Studio 2005 & 2008
- Computer Languages (C,C++, Visual Basic.NET, HTML, ASP.Net, C#, Assembly Language, Java)

LANGUAGES

- **Urdu** Excellent in reading, writing and speaking
- **English** Excellent in reading, writing and speaking
- **Pashto** Excellent in reading, and speaking

DISTINGUISH FEATURES

- **Flexible, Motivated and Team player.**
- **Ability to handle multi-dimensional task**
- **Excellent Communication Skills**
- **Fluency in English and Local Languages**
- **Under-take responsibility easily & confidently**

HOBBIES

Traveling, Reading Books, News Papers and Net Surfing.