



UNIVERSITY OF KARACHI

Self-Assessment Report
MSc-Programme
Department of Mathematics,
University of Karachi

Submitted to

Quality Enhancement Cell
University of Karachi

ASSESSMENT TEAM and PROGRAMME TEAM:

Professor Dr. Anwar Ali Zaidi	Professor and Chairman
Dr. Asif Raza Khan	Assistant Professor
Ms. Noor Fatima Siddiqui	Lecturer
Ms. Hafsa Athar Jafree	Lecturer

NON-TEACHING SUPPORTING STAFF

Mr. Javed Saeed
Mr. Aziz Hussain
Mr. Junaid Tahir

CONTENTS

Criterion 1- Programme Mission, Objectives and Outcomes		Page #
	Introduction	5
Standard 1-1	Programme Mission and Objectives	6
Standard 1-2	Programme Outcomes	7
Standard 1-3	Overall Performance Using Quantifiable Measures	8
Standard 1-4	Students Enrolment	9

Criterion 2- Curriculum Design and Organization		Page #
	Programme of studies offered	12
Standard 2-1	Correlation of Courses with Objectives	15
Standard 2-2	Theory, Problem Analysis/ Solution and Design in Programme	15
Standard 2-3	Mathematics & Basic Sciences Requirements	15
Standard 2-4	Major requirements as specified by Acceleration Body	15
Standard 2-5	Maths and Basic Sciences, Engineering Topics, General Education.	15
Standard 2-6	Information Technology Content Integration Throughout the Programme	16
Standard 2-7	Communication Skills (Oral & Written)	16

Criterion 3- Laboratories and Computing Facilities		Page #
	Laboratory and Computing Facilities	18
Standard 3-1	Lab Manuals/ Documentation / Instructions	18
Standard 3-2	Adequate Support Personnel for labs	18
Standard 3-3	Adequate computing infrastructure and facilities	18

Criterion 4 Student Support and Advising		Page #
Standard 4-1	Effective Faculty / Student Interaction	21
Standard 4-2	Professional Advising and Counseling	21
Standard 4-3	Professional Advising and Counseling	21

Criterion 5- Process Control		Page #
Standard 5-1	Admission Process	23
Standard 5-2	Registration and Student	23
Standard 5-3	Faculty Recruitment and Retention Process	23
Standard 5-4	Effective Teaching and Learning Process	24
Standard 5-5	Programme requirements completion process	25

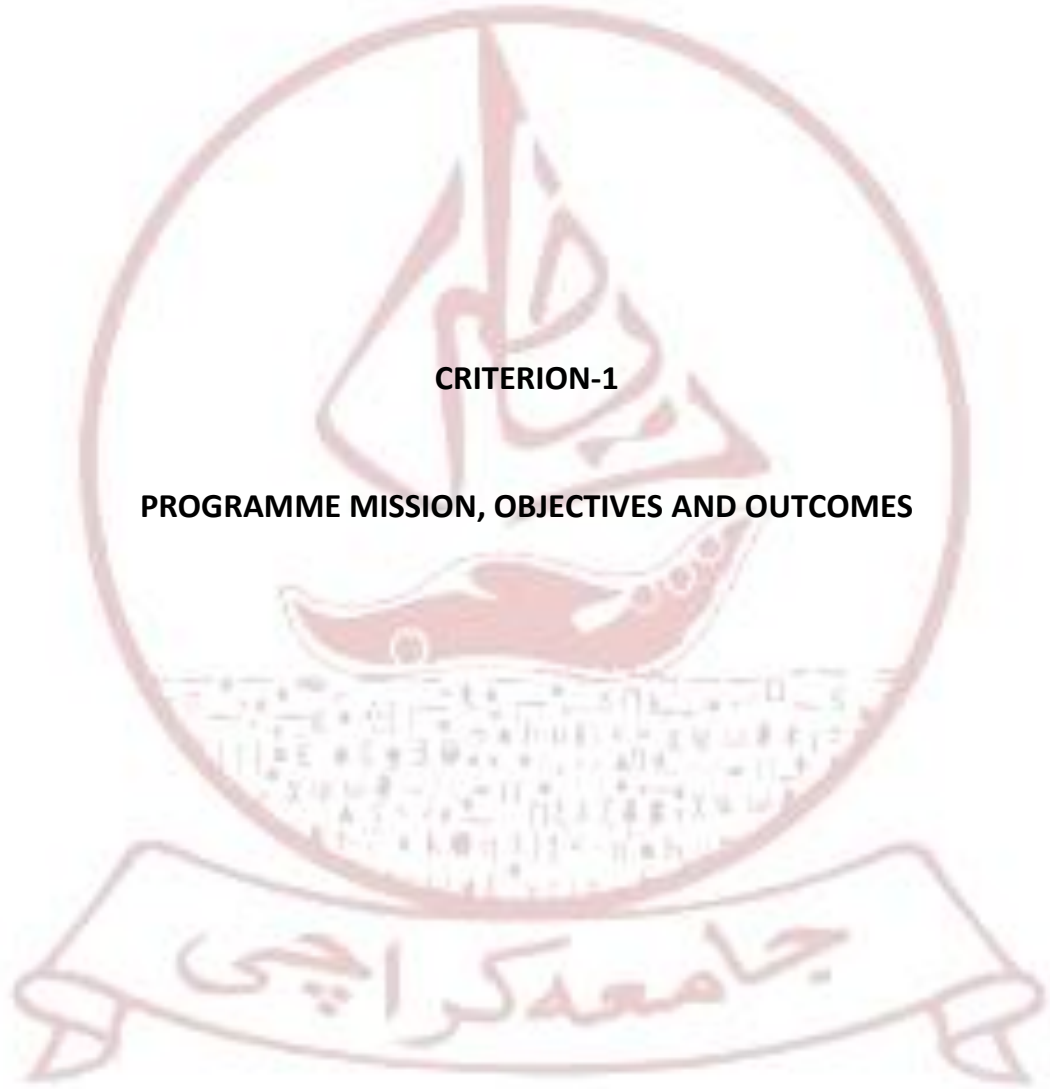
Criterion 6- Faculty		Page #
Standard 6-1	Programme Faculty Qualifications and Number	27
Standard 6-2	Current Faculty, Scholarly activities and development	27
Standard 6-3	Faculty motivation and Job satisfaction	27

Criterion 7- Institutional Facilities		Page #
Standard 7-1	New Trends in Learning	29
Standard 7-2	Library Collections & Staff	29
Standard 7-3	Class rooms & Offices Adequacy	29

Criterion 8- Institutional Support		Page #
Standard 8-1	Support & Financial Resources	31
Standard 8-2	Number & Quality of GSs, RAs, & Ph.D. Students	31
Standard 8-3	Financial Support for Library, Labs & Computing Facilities	32

Faculty CVs & Survey's Results		Page #
	Teacher's & Course Evaluation Survey	34
	Faculty CVs	36





CRITERION-1

PROGRAMME MISSION, OBJECTIVES AND OUTCOMES

INTRODUCTION

Department of Mathematics was established in 1956. Prof. Dr. Suleman Kerawala was the first chairman. It is one of the biggest Departments in the faculty of Science.

The mission of the department is to bring life to Mathematics and vice versa. Pure, Applied and inter-disciplinary Mathematics is being pursued in teaching and research.

Undergraduate, graduate and postgraduate programmes are being offered. At all levels, students are instructed in the rigor and precision characteristics of mathematical reasoning. They are facilitated to become acquainted with the elementary tools of Mathematics and techniques to use them. Also, they acquire mathematical knowledge and reasoning skills necessary to make effective use of mathematics.

The aim of the department's activities is to help students to develop a significant understanding and appreciation of Mathematics as a creative discipline. Students have facilities of computer lab and seminar library to serve for this purpose. A conference hall has also been established this year for research and other academic activities.

Students graduating from this department get employed in various R&D organizations like SUPARCO, PCSIR, Pakistan Science Federation, Meteorologist Department of Pakistan and Financial organizations like State Bank of Pakistan and numerous public/private educational sectors.

The department currently has 32 full-time teaching staff and, approximately 1200 enrolled students. The department provides full undergraduate degree programmes in Mathematics MSc and BSc(Hons.). These degrees are also offered in the evening under self-finance programme. Additionally, this Department imparts different courses to other degree programs in the Faculties of Social and Applied Science (first two years as subsidiary).

Chairman

Department of Mathematics

University of Karachi

Criterion-1: Programme Mission, Objectives and Outcomes

Institutional Mission

The mission of the department is to serve the country and wider international community in the development and communication of Mathematics through high quality research, publication and training at both undergraduate and postgraduate levels.

More specifically, our goals are:

- To advance mathematical knowledge through the pursuit of excellence in mathematical research, the dissemination of results through international conferences, leading research journals and the cultivation of international collaboration;
- To foster a stimulating environment for the grounding and training of new mathematical researchers;
- To provide a steady stream of people who are highly trained in the appropriate mathematical skills needed for working in educational, scientific, technical, financial and other areas
- Keep in view the curriculum need of Mathematics to almost every department in the faculty of Social, Biological, Applied and Management Sciences, we provide teachers across the University.

MSc Degree Programme

Programme Mission Statement of MSc

Our mission of MSc Degree Programme is to equip students with professional careers in all disciplines which make use of Mathematical sciences and enable them to pursue more advanced studies at research level in Mathematics and related fields.

Standard 1-1.1: The Programme must have documented measurable objectives that support college and Institution mission statements.

MSc Degree Programme objectives:

- To master the students with subject material in discipline opt by them either pure or applied Mathematics.

- To develop critical and logical thinking in students in order that students may understand theoretical proves.
- To master them in use of mathematical language and symbols to provide better understanding of Mathematics in all fields.
- To develop a client-based and practical perspective concerning applied Mathematics with a view towards modeling and solving real-world problems.
- To groom them as a researcher who can take better decisions on basis of insight to the mathematical knowledge of the subject.
- Obtain hands-on experience in client-based operations through internships and consulting seminars, thereby developing the ability to collaborate with individuals whose training lies in other disciplines.
- Become sufficiently proficient in obtaining core academic material to permit further study at research level in different disciplines of Mathematics, and related fields.

Table: Programme Objectives Assessment

S. No.	Objectives	How Measured	When Measured	Improvement Identified	Improvement Made
1	conceive, develop and execute a study plan that has relevance to current issues in Mathematics	by evaluating the assignments and assessment of the student	Every academic year and during semester	None	None
2	gather information from various study tools and resources specially the information technology	By reviewing the thesis and research articles, seminar conducted by student	Every academic year and during semester	None	None
3	have in-depth knowledge of Mathematics and its applications	Through assignments and presentations	Every academic year and during semester	None	None

Standard 1-2.1: The programme must have documented outcomes for graduating students. It must be demonstrated that the outcomes support the programme objectives and that

graduating students are capable of performing these outcomes.

After completion of the MSc Degree Programme in Mathematics, the students shall be able to:

- Compete successfully for internship and employment positions in government, industry, and non-profit organizations.
- Develop a tendency toward applied areas such as physical sciences, financial services, and social sciences and have the knowledge, experience, and motivation to bring the mathematical tools to cope up with real-world problems.
- Collaborate competently with non-expert users of Mathematics and related disciplines.
- Foster an intellectual curiosity and flexibility to grow with developing technology and new methods in current research areas related to Mathematics.
- Perform better in aptitude test of MPhil/PhD in different renowned institutions.

Standard 1-3.1: The results of programme's assessment and the extent to which they are used improve the programme must be documented.

a) Strengths and Weaknesses of the Programme

i) Strengths:

- Diversity in different fields
- Enhance reasoning and critical thinking
- Students perform better in aptitude tests at higher level

ii) Weaknesses

- Insufficient facilities for teachers, students and staff
- No teachers training at all to enhance the teaching expertise and skills
- Out dated syllabi for undergrad and graduate level studies

b) Future Development Plans

There are three degree programmes of Bachelors and Masters in pipeline which include

- Computational Mathematics (MSc Programme)
- Computational Mathematics (BS Programme)
- Financial Mathematics (BS Programme)

Further, top management of Mathematics department has constituted a committee to revise and up-date the existing curriculum as per need of current trends in Mathematics and to further raise the standard of teaching of Mathematics.

Standard 1-4: The department must assess its overall performance periodically.

a) Student Enrolment

S. No	Year	Degree
		MSc(Previous)
1	2013	213
2	2014	130
3	2015	118

b) Student/Faculty Ratio

For about 400 masters students there are around 20 teachers engaged in MSc level teaching, i.e., $400/20= 15$ students per teacher approximately

c) Time for Masters

A student completed BSc(honours) degree successfully can get enrolled directly in one-year MSc programme. A student having two-year bachelor's degree in Mathematics can get admission in MSc(previous) which is a two-years master's degree programme.

d) The average student grade point (CGPA)

The average student grade point is 3.0 CGPA

e) Student/Faculty Satisfaction

From Faculty point of view

Departmental faculty is facing problems due to poor quality assessment system at matriculation and intermediate level. So, quality of education is declining day by day. The new generation is wasting most of their time on social media.

From Students point of view

Department conducted a survey for Teachers' and courses evaluation. Here we have summarized some of students' remarks.

Students have the opinion that:

- Mid-term exam, Assignments, Quizzes and Presentations should be a mandatory part of the courses.
- Course outline/curriculum is out dated it should be revised.

- Teachers should focus more on real life applications of Mathematics.
- Latest Mathematical Softwares should also be part of curriculum.
- Workshops and seminars should be conducted on regular basis to motivate students.

Beside these remarks students are also not satisfied with the poor conditions and infrastructure of the departments most of the students complained about

- Unavailability of pure drinking water
- Poor conditions of computer lab
- Shortage of chairs in the class rooms
- Unavailability of electric supply in girls' common room.
- Overall poor conditions of the department related to cleanliness etc.





CRITERION-2

CURRICULUM DESIGN AND ORGANIZATION

Criterion-2 Curriculum Design and Organization**Programme of Studies offered****Year / Semester wise Scheme of Studies of MSc Programme****MSc Prev**

S. No	Course Code	Course Title
1	501	ANALYSIS I
2	503	LINEAR ALGEBRA
3	505	NUMERICAL ANALYSIS I
4	507	APPLICABLE DIFFERENTIAL GEOMETRY I
5	509	METHODS OF MATHEMATICAL PHYSICS I

MSc Prev

S. No	Course Code	Course Title
1	502	ANALYSIS II
2	504	COMPUTER ALGEBRA
3	506	NUMERICAL ANALYSIS II
4	508	APPLICABLE DIFFERENTIAL GEOMETRY II
5	510	METHODS OF MATHEMATICAL PHYSICS II

MSc Final (See list of courses given below)

S. No	Course Code	Course Title
1	Compulsory I	
2	Compulsory II	
3	Compulsory III	
4	Optional I	
5	Optional II	

MSc Final

S. No	Course Code	Course Title
1	Compulsory I	

2	Compulsory II	
3	Compulsory III	
4	Optional I	
5	Optional II	

List of MSc Compulsory and Optional courses

(A) For Pure Mathematics Only

SR. #.	MATH	CR. #.	COURSE TITLES
Compulsory Courses			
01.	MATH	601	ABSTRACT ALGEBRA
02.	MATH	602	GALOIS THEORY AND ITS APPLICATIONS
03.	MATH	605	MEASURE THEORY I
04.	MATH	606	MEASURE THEORY II
05.	MATH	611	FUNCTIONAL ANALYSIS I
06.	MATH	612	FUNCTIONAL ANALYSIS II
Optional Courses			
07.	MATH	603	COMMUTATIVE RING
08.	MATH	604	FIELD THEORY
09.	MATH	615	SUMMABILITY THEORY I
10.	MATH	616	SUMMABILITY THEORY II
11.	MATH	621	ALGEBRAIC TOPOLOGY I
12.	MATH	622	ALGEBRAIC TOPOLOGY II
13.	MATH	625	ABELIAN GROUPS I

(B) For Applied Mathematics Only

SR. #.	MATH	CR. #.	COURSE TITLES
Compulsory Courses			
01.	MATH	651	CLASSICAL MECHANICS I
02.	MATH	652	CLASSICAL MECHANICS II
03.	MATH	655	FLUID DYNAMICS I (2+1)
04.	MATH	656	FLUID DYNAMICS II (2+1)
Optional Courses			
05.	MATH	611	FUNCTIONAL ANALYSIS I
06.	MATH	612	FUNCTIONAL ANALYSIS II
07.	MATH	661	ELECTROMAGNETICS I
08.	MATH	662	ELECTROMAGNETICS II
09.	MATH	665	QUANTUM MECHANICS I
10.	MATH	666	QUANTUM MECHANICS II
11.	MATH	671	RELATIVITY I
12.	MATH	672	RELATIVITY II

13.	MATH	685	ASTRONOMY I
14.	MATH	686	ASTRONOMY II

(C) Optional for both Pure/Applied Mathematics

01.	MATH	631	NUMERICAL ANALYSIS I (2+1)
02.	MATH	632	NUMERICAL ANALYSIS II (2+1)
03.	MATH	633	MATHEMATICAL STATISTICS I
04.	MATH	634	MATHEMATICAL STATISTICS II
05.	MATH	637	APPLIED ALGEBRA I (2+1)
06.	MATH	638	APPLIED ALGEBRA II (2+1)
07.	MATH	643	COMPLEX ANALYSIS I
08.	MATH	644	COMPLEX ANALYSIS II
09.	MATH	645	OPERATIONS RESEARCH I
10.	MATH	646	OPERATIONS RESEARCH II
11.	MATH	647	PROJECTIVE GEOMETRY I
12.	MATH	648	PROJECTIVE GEOMETRY II
13.	MATH	649	STOCHASTICS PROCESSES
14.	MATH	650	RENEWAL PROCESSES AND THEORY OF QUEUES
15.	MATH	653	INTEGRAL EQUATIONS
16.	MATH	654	PARTIAL DIFFERENTIAL EQUATIONS
17.	MATH	657	NONLINEAR SYSTEMS I
18.	MATH	658	NONLINEAR SYSTEMS II
19.	MATH	663	SOFTWARE ENGINEERING (2+1)
20.	MATH	664	SOFTWARE PROGRAMMING AND ANALYSIS (2+1)



Standard 2-1: The Curriculum must be consistent and support the programme's documented objectives

The following table manifests how the programme content (Courses) meets the Programme Objectives.

For MSc Programme

Courses	Programme's Objectives				
	1	2	3	4	5
Major Courses	All core courses.		501, 502 (helps to understand effective use of Mathematical symbols)		All 3 rd and Final Year courses provide sound knowledge for further research in Mathematics
Elective Courses				645, 646 (to help in developing decision making skills)	
Practical (Field and Lab)				663, 664 (to develop programming skills)	
Thesis/Dissertation	NA	NA	NA	NA	NA

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

Standard 2-4: The curriculum must satisfy the major requirements for the programme, as specified by the respective accreditation body/council.

The curriculum adopted by our department is in alignment with the Higher Education Commission (HEC) approved by competent authority and statutory bodies of University of Karachi. The department also actively participated in National Curriculum Development & Revision.

2-5: The curriculum must satisfy the general education, arts and other discipline requirements for the Programme as specified by the accreditation body.

Mathematical Courses are being taught subsidiary to various other departments of social and applied sciences at undergrad level. Interdisciplinary research work like information technology and biological sciences is also being conducted.

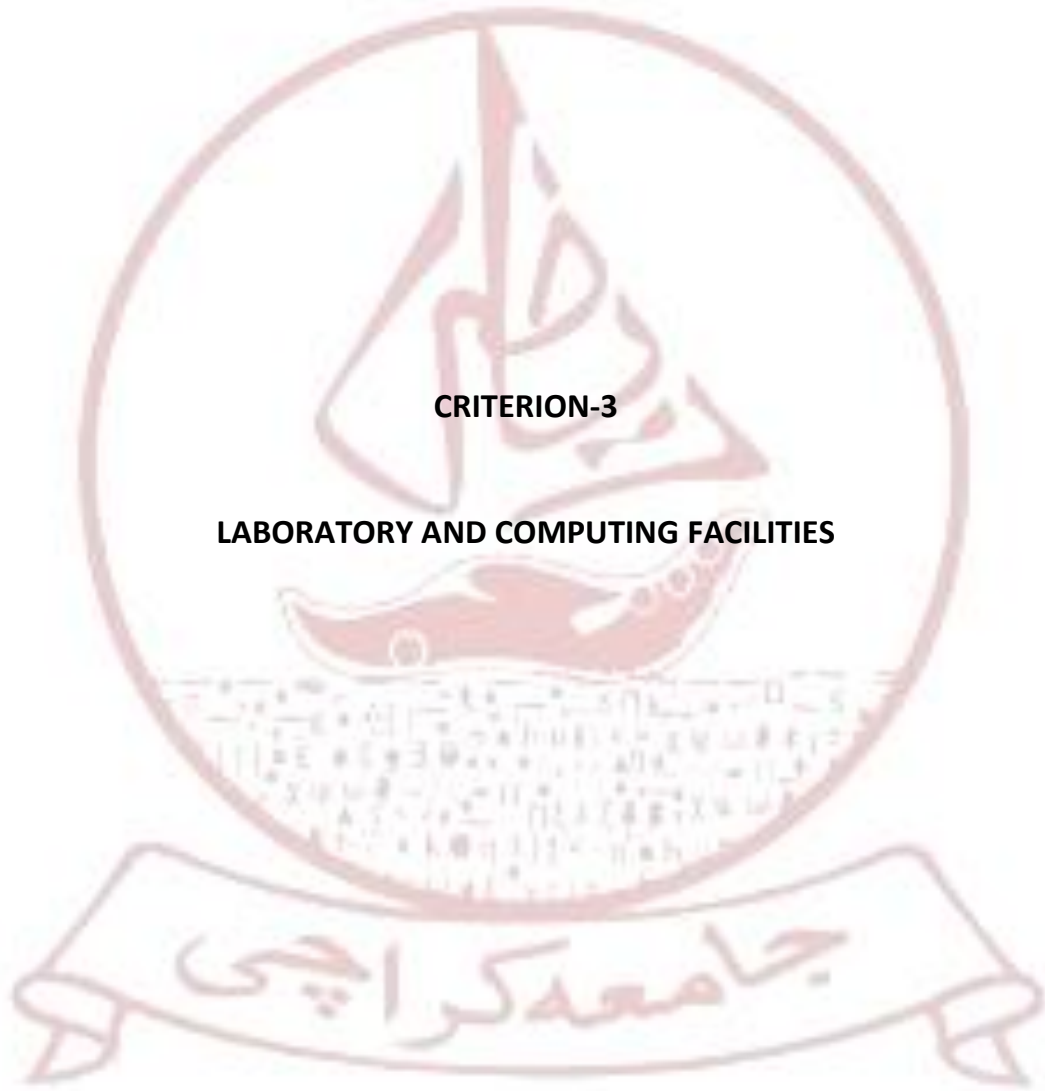
Standard 2-6: Information technology component of the curriculum must be integrated throughout the programme.

We offer many programmes related to information technology like 663, 664.

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

Our focus is mainly on written mathematical communication rather than oral. Oral communication skills are covered during presentations.





CITERION-3: Laboratory and Computing Facilities

Laboratory Facilities

Our department only requires a computer lab the details of which are as under.

Computer Facilities

The department lacks a working computer lab. The existing lab has only 5 outdated computers in working condition. On average a class has 60 students, therefore conducting labs in these circumstances is extremely difficult. Additionally, no multimedia or projector is available for the faculty.

Internet Facility

In general, there is no internet facility for teachers and students in the department. Some teachers have internet connections by their own resources. Also, most of the time teachers are facing problems in internet connectivity and/or speed.

Standard 3-1: Laboratory manuals/ documentation instruction for experiments must be available and readily accessible to faculty and students

Labs/Practical's and/or software needs and requirements are already given in course outline/curriculum.

Standard 3-2: There must be adequate support personnel for instruction and maintaining the laboratories.

There is no support personnel(s) to provide instruction to the students or to maintain the laboratories or facilitate in computer lab work. As a result, it becomes very difficult for the students to work and maintain the computer lab. These labs require properly trained and technical staff to fulfill the basic needs of researchers

Standard 3-3: The University computing infrastructure and facilities must be adequate to support programme's objectives

i) Computing Facilities

The department doesn't have adequate networking and computer facilities.

ii) Multimedia

There is only one multi-media projector fixed in seminar room.

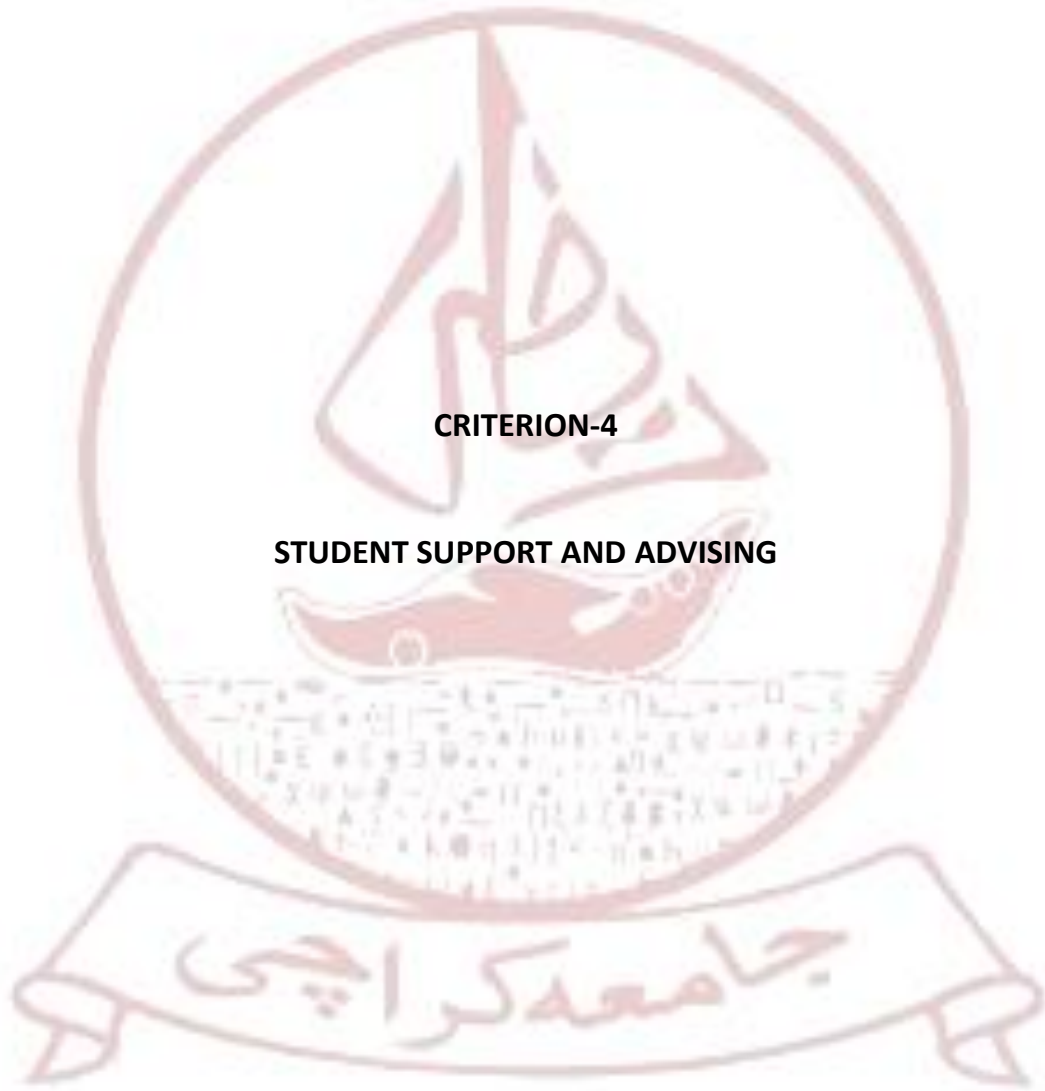
iii) Website

<http://math.uok.edu.pk>

iv) Internet

The department has limited internet facility for the faculty and labs provided from main communication network of the university. It is not available to research student because of the non-availability of computers and computer lab. The speed of the internet is gradually decreasing over time and frequently remains unavailable due to technical reasons.





Criterion-4 Student Support and Advising

Although there is a disciplinary committee for students to help them at BSc and MSc level but there is no student advisory for the research students in our department. The faculty members informally provide support, advice, and mentoring. They can freely discuss their concerns with any of the staff they feel comfortable with.

Standard 4-1: Courses must have been offered with sufficient frequency and number for students to complete the programme in a timely manner.

Programme	Classes per Week	Practical Classes per Week	Research Guidance
MSc	15	Only for courses with lab.	Course In-charge

Standard 4-2: Course in the major must be structured to ensure effective interaction between students, faculty and teaching assistants.

The MSc is based on structured courses. The department is working to revise the curriculum to fulfill today's need of the subject.

Standard 4-3: Guidance on how to complete the programme must be available to all students and access to academic advising must be available to make course decisions and career choices

In general, all faculty members provide assistance for the selection of course, about various requirements for the completion of the program and career choices. All relevant information is displayed on the departmental notice board and a copy is provided to the course supervisor. The students are regularly updated about the upcoming seminars, workshops and conferences. Some of the workshops are specially organized for them to learn new techniques or soft wares.



Criterion-5: Process Control

Standard 5-1: The process by which students are admitted to the programme 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.

Every year a policy is made through departmental board of studies according to which the number of seats and criteria is established to grant admissions.

Standard 5-2: The process by which students are registered in the programme and monitoring of students' progress to ensure timely completion of the programme must be documented. This process must be periodically evaluated to ensure that it is meeting its objectives.

Applicants are required to have BSc degree with Mathematics or equivalence certificate for admission in MSc(previous) in Mathematics. Admissions are given on Merit basis.

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 institutional mission statement. These processes must be periodically evaluated to ensure that it is meeting with its objectives.

Faculty Recruitment / Retaining Policy

As per Karachi University Rules/HEC Criteria

Appointments / Promotions Procedure:

As per Karachi University Rules/HEC Criteria

Basic Pay Scale (BPS)

BPS	17
BPS	18
BPS	19
BPS	20

a. Lecturer (BPS- 18):

Minimum Qualification

As per Karachi University Rules/HEC Criteria

b. Assistant Professor (BPS- 19):

Minimum Qualification

As per Karachi University Rules/HEC Criteria

c. Associate Professor (BPS- 20)

Minimum Qualification

As per Karachi University Rules/HEC Criteria

Experience

Minimum Number of Publications

As per Karachi University Rules/HEC Criteria

d. Professor (BPS-21)

Minimum Qualification

As per Karachi University Rules/HEC Criteria

Experience

As per Karachi University Rules/HEC Criteria

Minimum Number of Publications

As per Karachi University Rules/HEC Criteria

Bases for Appointments / Promotions

As per Karachi University Rules/HEC Criteria

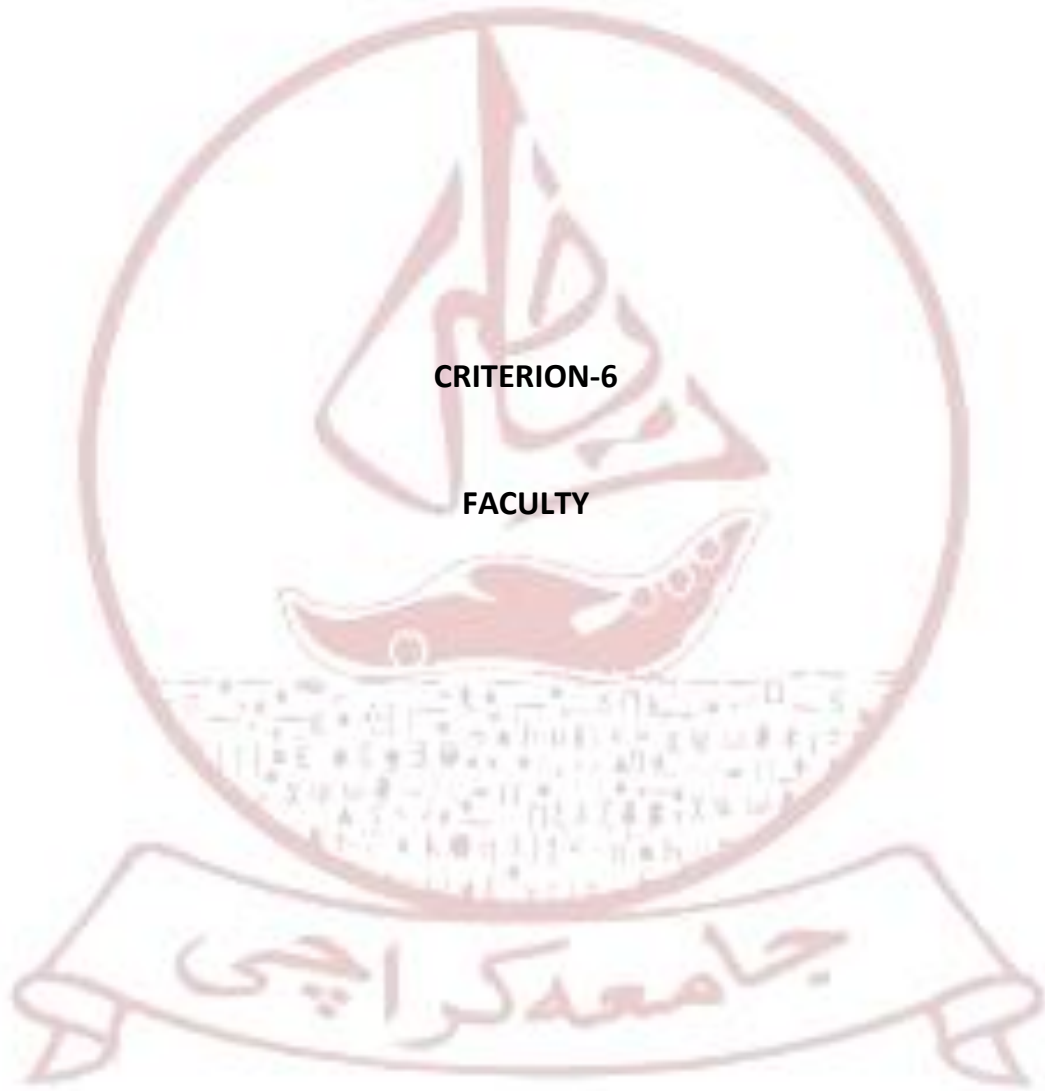
Standard 5-4: The process and procedure used to ensure that teaching and delivery of course material to the students emphasizes active learning and that course learning outcomes are met. The process must be periodically evaluated to ensure that it is meeting its objectives.

We are following semester system. At the end of each semester exam are conducted and performance of students and understanding is checked by assessment of exam copies. Now it is realized that Mathematics curriculum should be revised.

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

Following semester system, we would be able to ensure and fulfill the above roadmap.





CRITERION-6

FACULTY

Criterion-6 Faculty

Standard 6-1: There must be enough full time faculty who are committed to the programme to provide adequate coverage of the programme areas / courses with continuity and stability. The interest of all faculty members must be sufficient to teach all courses, plan, modify and update courses. The majority must hold a Ph.D. degree in the discipline.

Our department is rich in terms of PhD faculty members out of 32, 11 are PhDs. Our faculty is very competent. We are offering almost all core courses and most of the optional courses are also taught at our department. Faculty members are doing research in diversified fields. Applied side is a little bit heavier in terms of number of faculty members as compared to pure side. We are in danger of shortage of algebra experts in future after retirement of senior members.

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 programmes for faculty development must be in place.

There is always a need to update but our course outline is a little bit outdated and does not fulfill all the present era needs. It must be revised. Also, lack of interest is sown from top management in teachers training and developments. All the teachers should be updated in terms of current mathematical trends and teaching methodology for professional development.

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

Most of the teachers are not happy due to management issues related to poor administration, billing, medical, arrears, promotion and research grants etc. There is also a situation of chaos due to frequent change of policies of HEC and Sind Government. Faculty members who are doing research with dedication have no financial support for research. Very poor condition of class rooms due to shortage of chairs and worst condition of computer lab.



Criterion-7 Institutional Facilities

Standard 7-1: The Institution must have the infrastructure to support new trends in learning such as E-learning.

a) Departmental library and Internet Facility

We have one out dated seminar library. No proper internet facility of faculty and students.

b) Main Library

Mahmood Hussain Library is a central library for this purpose.

c) Offices

We also have shortage of faculty offices. In some small offices 4 faculty members are sitting. Also, the conditions of offices are not good.

d) Class Rooms

Very poor condition of class rooms. Shortage of chairs. Poor electricity conditions. Windows without glasses etc.

Standard 7-2: The library must possess on up-to-date technical collection relevant to the programme and must be adequately staffed with professional personnel.

We do have proper librarian for our seminar library. But books are out dated. Also there is no software or computer to manage library digitally.

Standard 7-3: Class rooms must be adequately equipped and offices must be adequate to enable faculty to carry out their responsibility.

Classrooms

Very poor condition of class rooms. Shortage of chairs. Poor electricity conditions. Windows without glasses etc.

Faculty Offices

We also have shortage of faculty offices. In some small offices 4 faculty members are sitting. Also, the conditions of offices are not good. Faculty do not have proper internet and printing facilities.



Criterion-8 Institutional Support

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 teacher and scholars.

As mentioned earlier, there are no proper facilities to promote research culture. Also sortie of funds or unavailability of research grants for research.

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

SR. #.	CLASS	NUMBER OF STUDENTS
2013		
01.	M. Sc. (Previous)	213
02.	B. Sc. (Hons) to M. Sc. (Final)	64
03.	M. Sc. (Previous) to M. Sc. (Final)	52
04.	M. Phil. Program	28
05.	Ph. D. Program	04
06.	Research Assistants	NA
2014		
01.	M. Sc. (Previous)	130
02.	B. Sc. (Hons) to M. Sc. (Final)	66
03.	M. Sc. (Previous) to M. Sc. (Final)	90
04.	M. Phil. Program	NO ADMISSIONS
05.	Ph. D. Program	NO ADMISSIONS
06.	Research Assistants	NA
2015		
01.	M. Sc. (Previous)	118
02.	B. Sc. (Hons) to M. Sc. (Final)	59
03.	M. Sc. (Previous) to M. Sc. (Final)	111
04.	M. Phil. Program	08
05.	Ph. D. Program	03
06.	Research Assistants	NA

Student/Faculty Ratio (for the last three years)

As mentioned earlier for 400 MSc students there are 20 teachers, i.e., $400/20= 20$ students per teacher approximately

Standard 8-3: Financial resources must be provided to acquire and maintain library holding, laboratories and computing facilities.

As mentioned earlier there are lack of financial resources to maintain seminar library and computer lab properly.





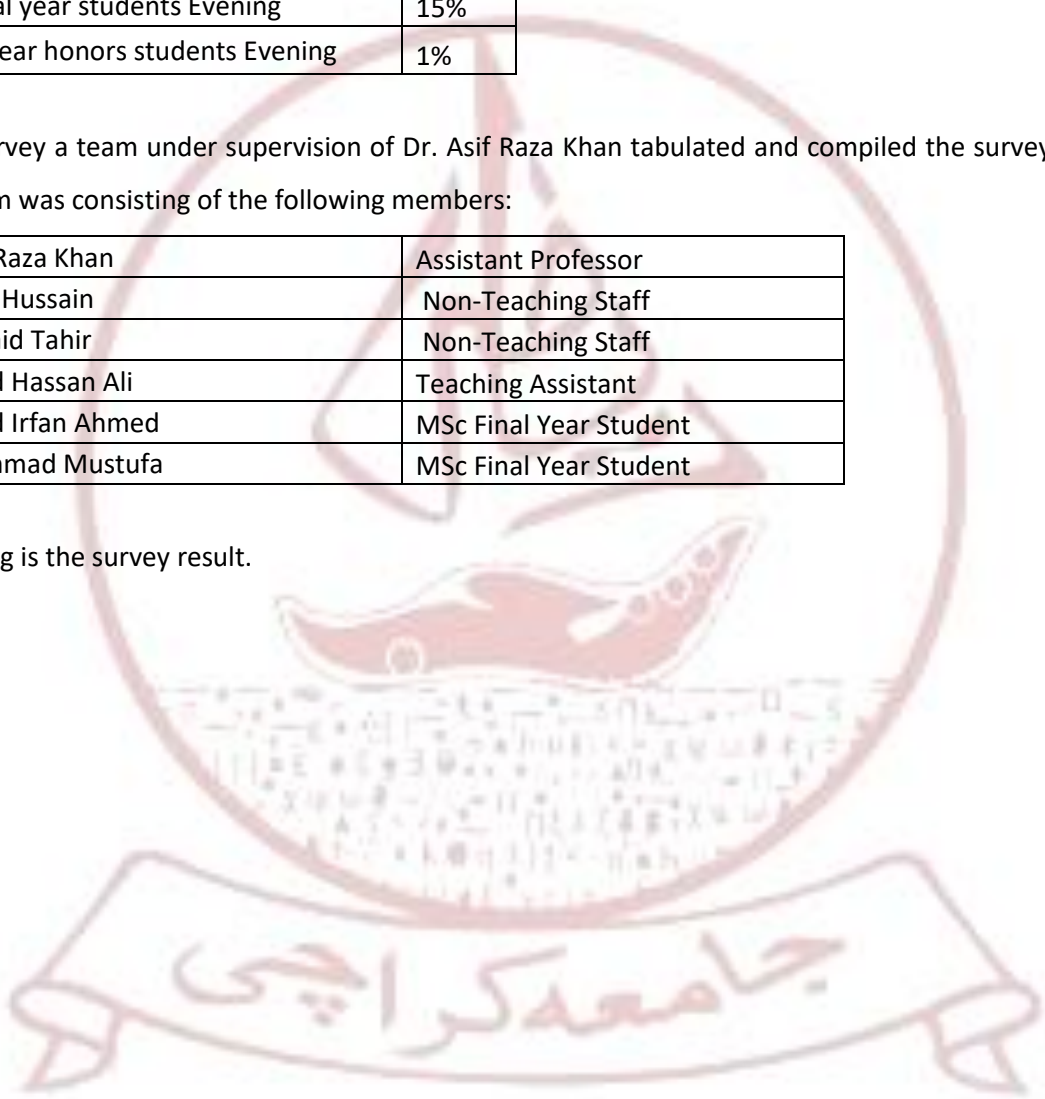
Dr. Asif Raza Khan conducted a survey of 200 Students. The participation of students is as under in terms of percentage:

MSc Final year students Morning	40%
BSc 3 rd year honors students Morning	40%
Passed Out students	1%
MPhil students	2%
PhD students	1%
MSc Final year students Evening	15%
BSc 3 rd year honors students Evening	1%

After survey a team under supervision of Dr. Asif Raza Khan tabulated and compiled the survey results. The team was consisting of the following members:

Dr. Asif Raza Khan	Assistant Professor
Mr. Aziz Hussain	Non-Teaching Staff
Mr. Junaid Tahir	Non-Teaching Staff
Mr. Syed Hassan Ali	Teaching Assistant
Mr. Syed Irfan Ahmed	MSc Final Year Student
Mr. Hammad Mustufa	MSc Final Year Student

Following is the survey result.



TEACHER'S EVALUATION						
		5	4	3	2	1
1	The Teacher provides lesson plan in the first lecture	42%	20%	18%	13%	7%
2	The Teacher conducts the classes as per schedule	44%	28%	15%	7%	6%
3	The Teacher comes prepared for each lecture / practical	45%	34%	14%	4%	3%
4	The Teacher demonstrates knowledge of the subject	38%	28%	18%	11%	5%
5	The Teacher provides additional material apart from the text book	21%	26%	27%	10%	16%
6	The Teacher creates an environment that is conducive for learning	23%	29%	26%	9%	13%
7	The Teacher has completed the entire course	27%	35%	16%	14%	8%
8	The Teacher is fair in evaluation	20%	28%	32%	12%	8%
9	The Teacher returns the graded assignments, quizzes answer sheets etc. within specified time period	15%	22%	20%	21%	22%
10	The Teacher remains available for consultation during specified office hours	32%	25%	18%	11%	14%
11	The Teacher follows moral and ethical norms	38%	28%	17%	11%	6%
COURSE EVALUATION						
12	The course is well organized	27%	31%	20%	10%	12%
13	The syllabus clearly states course objectives, requirements, procedures and grading criteria	17%	33%	26%	16%	8%
14	The course integrates the theoretical concepts with real world applications	17%	17%	27%	18%	21%
15	The assignments, quizzes and exams cover the materials presented in the course	30%	32%	18%	13%	7%
16	The course material is updated	17%	25%	22%	15%	21%
17	The content presented in the course has increased my knowledge of the subject	35%	33%	15%	10%	7%
18	The course content has stimulated my intellectual curiosity	22%	26%	35%	12%	5%

We also got various remarks from students which may be summarized as follows:

Students have the opinion that:

- Mid-term exam, Assignments, Quizzes and Presentations should be a mandatory part of the courses.
- Course outline/curriculum is out dated it should be revised.
- Teachers should focus more on real life applications of Mathematics.
- Latest Mathematical Softwares should also be part of curriculum.
- Workshops and seminars should be conducted on regular basis to motivate students.

students are also not satisfied with the poor conditions and infrastructure of the departments

most of the students complained about

- Unavailability of pure drinking water
- Poor conditions of computer lab
- Shortage of chairs in the class rooms
- Unavailability of electric supply in girls' common room.
- Overall poor conditions of the department related to cleanliness etc.

Faculty CVs

CVs of Faculty Members are in Following order of Seniority

- | | | |
|--|---------------------|----------------|
| 1. Dr. Syed Anwar Ali Zaidi (Chairman) | Professor | PhD |
| 2. Dr. Sarwar Jahan Abbasi | Professor | PhD, Post Doc. |
| 3. Dr. Najeeb Alam Khan | Associate Professor | PhD |
| 4. Dr. Mushtaq Ahmed | Assistant Professor | PhD |
| 5. Mr. Muhammad Javed Ansari | Assistant Professor | MPhil |
| 6. Mr. Waseem Ahmed Khan | Assistant Professor | MPhil |
| 7. Dr. Syeda Sadia Zia | Assistant Professor | PhD |
| 8. Mr. Waseem Ahmed Ansari | Assistant Professor | MSc |
| 9. Ms. Saba Naz (SL) | Assistant Professor | MSc |
| 10. Mr. Tanveer Ahmed Siddiqui (SL) | Assistant Professor | MSc |

11. Dr. Muhammad Imtiaz	Assistant Professor	PhD
12. Dr. Syed Inayatullah	Assistant Professor	PhD
13. Mr. Muhammad Ayaz	Assistant Professor	MS
14. Dr. Asif Raza Khan	Assistant Professor	PhD
15. Dr. Fozia Hanif Khan	Assistant Professor	PhD
16. Dr. Saqib Ur Rehman	Assistant Professor	PhD
17. Dr. Syed Ahmed Hassan	Assistant Professor	PhD
18. Mr. Shahid Sultan (SL)	Lecturer	MSc
19. Mr. Asif Iqbal	Lecturer	MS
20. Ms. Asma Rani (SL)	Lecturer	MSc
21. Ms. Hafsa Athar Jafree	Lecturer	MPhil
22. Ms. Hina Zaheer (SL)	Lecturer	MSc
23. Ms. Noor Fatima Siddiqui	Lecturer	MS
24. Mr. Ateeq Razzak	Lecturer	MPhil
25. Mr. Salman Safdar	Lecturer	MS
26. Ms. Samreen Ahmed	Lecturer	MS
27. Ms. Samira Sahar Jamil	Lecturer	MS
28. Ms. Sumayyah Saadi	Lecturer	MS
29. Mr. Muhammad Usman Qureshi	Lecturer	MSc
30. Ms. Wajiha Riaz	Lecturer	MPhil
31. Ms. Aghzia Akram	Lecturer	MSc
32. Ms. Mehwish Shafi Khan	Lecturer	MPhil