DEPARTMENT OF MATHEMATICS

LAHORE COLLEGE FOR WOMEN UNIVERSITY, LAHORE

SELF-ASSESSMENT REPORT

MS

Submitted to

Quality Enhancement Cell,

Lahore College for Women University, Lahore

Dated:27/11/2018

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T A B L E O F C O N T E N T S

CRITERION 1: PROGRAM MISSION, OBJECTIVES AND OUTCOMES

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

- Document institution, college and program mission statements.

  LCWU MISSION STATEMENT:

  "To provide quality education to empower women through knowledge and skills so as to participate actively in the socio-economic development of Pakistan; as well as to impact the attitudes and beliefs of its graduates through various programs and activities to emerge as responsible, peaceful and tolerant citizens of the world."

  www.lcwu.edu.pk

- State program objectives. Program educational objectives are intended to be statements that describe the expected accomplishments of graduates during the first several years following graduation from the program.

  The MS Mathematics Program of Lahore College for Women University, Lahore is a two to program aligned with HEC guidelines, international standards and motherland's highly professional manpower requirements. It initiates with one year course work of 24 credit hours followed by the research work. The research work is assessed through seminars, conferences and workshop participations; research publications in HEC recognized journals, and finally evaluation of MS thesis through local evaluations.

  The objective of MS Mathematics program is

  1. To equip the MS students with the innovative research skills of international standards in the areas of Applied Mathematics/Computational Mathematics/Pure Mathematics so that the successful graduates can serve nationally as well as globally through the best of knowledge, skills and ethics.

- Describe how each objective is aligned with program, college and institution mission statements.

  The objective of MS Mathematics Program is completely aligned with the mission of university. The graduates who justify the said standards can easily put their share in academia (university teaching), research organization and industry as a part of research project group. Their genuine contributions in these capacities can act as catalyst for the socio-economic development of the country.

- Outline the main elements of the strategic plan to achieve the program mission and objectives.

Steps	Strategic Plan
Step-I	The candidates who have obtained Minimum 2.5 CGPA in (Semester System) or 50% Marks in BS (4-Year)/MSc Mathematics (2-Year) Program can apply for admission in MS Mathematics
Step-II	Entry Test of 100 Marks with qualifying marks 60%.
Step-III	Admission in MS Mathematics Program after qualifying entry test as well as interview.
Step-IV	Course of one year (Semester-I and II) with eight papers of total

	24 Cr. Hrs.
Step-V	Synopsis Writing.
Step-VI	Approval of synopsis by BoS Mathematics.
Step-VII	Approval of synopsis by faculty board and ASRB.
Step-VIII	Research work.
Step-IX	Thesis Writing.
Step-X	Thesis evaluation by local Examiners (as per criteria provided by HEC).
Step-XI	Public Defence and Viva Voce Examination by Local Examiners (as per criteria provided by HEC).
Step-XII	Degree Awarding and Convocation.

- Provide for each objective how it was measured when it was measured and improvements identified and made. Table 4.1 provides a format for program objectives assessment.

Objectives	**How Measured**	**When Measured**	**Improvements Identified (Based on outcome Examination)**	**Improvements Made**
Awareness of Core Concepts	Assignments Exams, Quizzes Projects for course work	During and at the end of semester	There is no separate research room for MS students.	Utilized free slots of rooms for BS/MSc. classes
Qualifying for research	Passing semester I and II	After 2nd semester		Students have a comprehensive knowledge of the subject.
Quantifying the research	Synopsis Evaluation at different level (BoS, FB, ASRB)	At the end of Third semester (Till January 2019 for the current session)	No workstation/ laboratory for research students. They have to do their research work in library or computer lab for BS students. The students have to vacate the lab at the time of BS classes assigned in computer lab.	.
Practical Skills & tools	Academic Projects, Lab Assignments	After six months	Insufficient knowledge of the Software.	Training workshops are conducted.
Professional Practice &	Meeting with supervisor.	Daily basis	No proper place for the meeting.	

Ethics	Progress Review Form by QEC			
Research Culture	Papers published, papers presented in conferences, research tours, research collaboration and regular seminars	During research and before the submission of draft copies of the thesis.	Sponsored research projects with private and public sector, active research groups.	
Performance evaluation	Survey of Department offering MS	After each one year		
	Student course evaluation questionnaire	After each one year		
	Teachers evaluation form	After each one year		
Originality of research	The Plagiarism Test	Before submission of draft copies of the thesis.		
Thesis submission	Thesis Evaluation by Local Examiners	After clearance of Plagiarism Test		
Thesis defense	Seminar and Viva-Voce Examination by Local Examiners	After positive evaluation by local examiner	Need a departmental seminar room.	

Table 4.1 Program Objectives Assessment

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.

Outcomes of MS Mathematics Program LCWU, Lahore

After completing the MS Mathematics Program, the students will be able to:

1. Fully understand the core concepts of the subject, and serve as teachers/supervisors in universities;

2. Apply computational skills effectively in various disciplines of computational and mathematical sciences;
3. Efficiently contribute in applied sciences, astronomy and engineering, The students follow professional ethics to carry out their assignments;
4. Produce researchers of international standards locally;
5. Serve as researchers in industries and research organizations;
6. Set the research projects for socio-economic growth of country;
7. Emerge as responsible and tolerant individuals.

- Describe how the Program Outcomes support the Program Objectives. In Table 4.2 show the outcomes that are aligned with each objective.

Program Objectives	Program Outcomes						
	1	2	3	4	5	6	7
1	×	×	×				
2	×	×	×				
3	×	×	×	×	×	×	×
4		×	×	×	×	×	
5				×	×	×	×
6	×	×	×	×	×		
7						×	×
8	×	×	×	×	×	×	×
9	×	×	×	×	×	×	×
10							×

Table 4.2: Outcomes versus Objectives

- Describe the means for assessing the extent to which graduates are performing the stated program outcomes/learning objectives.

(i) By following the criteria devised by HEC, Pakistan for MS Program.
(ii) By following the rules approved by ASRB and Academic Council of LCWU, Lahore.
(iii) By responding to the proformas designed by QEC, LCWU for evaluation of MS Mathematics Program, LCWU, Lahore.

Standard 1.3: The results of program's assessment and the extent to which they are used to improve the program must be documented.

Describe the actions taken based on results of periodic assessments.

- Describe major future program improvements plans based on recent assessments.
  - In future the Department has planned to introduce the following areas of research for MS Mathematics:
    (i) Simple Ergodic Theory (ii) Optimization Theory (iii) Combinatorial Mathematics
    (iv) Computational Fluid Dynamics (PDES context) (v) Commutative Algebra
  - Establishment of seminar room for MS Mathematics

- Establish of separate research room for MS Mathematics.
- Establishment of research collaborations.

- List strengths and weaknesses of the program.
  - Strength: (i) The MS Mathematics Program of Department of Mathematics, LCWU, Lahore, is approved by HEC, Pakistan.
    (ii) Highly professional and experienced PhD faculty.
    (iii) The MS Mathematics Program is a regular program. It saves the time of research students.
    (iv) HEC criteria for award of MS Degree are fulfilled. Therefore the successful graduates are acceptable globally.
    (v) Hostel facility for MS students.
    (vi) Library.

  - Weakness:
    (i) There is no separate research room for MS students.
    (iii) Unavailability of MS seminar room.

Standard 1.4: The department must assess its overall performance periodically using quantifiable measures.

1.4.1 Performance Measures:

T**able 3: <u>No. of Students Enrolled</u>**

Program	**Session**	**No. of Students**
	2015-2017	13
	2016-2018	08
	2017-2019	13
	2018-2020	22

ii) Table 4: <u>Student-Faculty Ratio</u>

Year	**No. of Students**	**No. of Faculty Members**	**Student-Faculty ratio**
2018-2019	22	06	11:3
2017-2018	13	08	13:8
2016- 2017	08	07	8:7
2015-2016	13	07	13:7

iii) Table 5: <u>No. of Students Passed Out</u>:

Program	**Passing out Year**	**No. of Students**
	2020	NA

MS	2019	12
	2018	08
	2017	13

IV) Table 6:Percentage of Honor Students & Attrition Rate

Year	**%age of Honor Students** **Criteria:** CGPA 3.75 and above	**Attrition Rate** (Admitted –pass out) *100 / Admitted
2019	06(Course work)	7.69 %
2018	04(Course work)	Zero %
2017	08(Course work)	Zero %

v) Table 7: Faculty Training, Seminars and workshops (Appendix A)

Year	No. of Trainings, Seminars and workshops
2013	Nil
2014	Nil
2015	Two workshops and four trainings

vi) Papers Published at National & International Level

Table 8: Number of Publications (Appendix B)

Year	**Papers published**
2015	7
2014	21
2013	05
2012	11

vii) Books in Library:

The total number of books in Library are 975.

Research Areas

The Faculty is involved in research in the following areas:

Name of Faculty Member	Area of research
Dr. ImranaKousar	Graph Theory, Algebraic Number Theory
Dr. Misbah Irshad	CAGD, Soft Computing, Digital Image Processing
Dr. Maria Hussain	CAGD(Computer Aided Geometric Design)
Dr. Uzma Bashir	CAGD/Geometric Modelling
Dr. Shazia Javed	Digital Signal Processing, Optimization Theory
Dr. TahiraSumbal Shaikh	CAGD(Computer Aided Geometric Design)
Dr. Salma Kanwal	Graph Theory
Dr. Saima Kamran	Graph Theory
Dr. SehrishIftikhar	General Relativity & Quantum Cosmology
Dr. Kanwal Nazeer	Alternativive theories, Cosmology

Collaborations: Nil

Departmental Achievements (others).

Three of the staff members availed travel grants to participate in workshops and international conferences.

Honors and Awards: Nil

CRITERION 2: CURRICULUM DESIGN AND ORGANIZATION

Title of degree program:
MS Mathematics

MS Curriculum:

The curriculum for MS Mathematics is designed according to the detailed curriculum development guidelines issued by HEC.

Scheme of Study for MS Mathematics comprises two semesters of reading courses (24 Credit Hours*) followed by research work.

Semester I (09 Credit Hours)	
02 Course from Annexure A	03
01 Course from Annexure B or C	03
01 Course from Annexure B or C	03

Semester II (09 Credit Hours)	
02 Course from Annexure A	03
01 Course from Annexure B or C	03
01 Course from Annexure B or C	03

Semester III – Semester IV
Thesis

List of courses for MS Mathematics:

	Course Code	Course Title with Details	Credit Hours
ANNEXURE A	Math-501	Advanced Functional Analysis Math_501Avanced Fuctioanl Analysis.docx	3(3+0)
	Math-502	Advanced Numerical Analysis Math_502(Adv Numerical Analysis).docx	3(3+0)
	Math-503	Special Theory of Relativity MS_Special_relitivity.docx	3(3+0)
	Math-504	Riemannian Geometry MS_Riemanin_Geometry.docx	3(3+0)
	Math-505	Operations Research Math_505(Operations Research).docx	3(3+0)
	Math-506	Research Methodology	3(3+0)
	Math-507	Algebraic Topology MATH_507 (Algebraic Topology).docx	3(3+0)
	Math-508	Advanced Mathematical Physics MATH_508(ADVANCED_MATHEMATICAL PHYSICS).docx	3(3+0)
ANNEXURE B (Pure Mathematics)	Math-509	Advanced Group Theory-I Math_509(Advanced Group Theory I).docx	3(3+0)
	Math-510	Advanced Group Theory-II Math_510(Advanced Group Theory II).docx	3(3+0)
	Math-511	Topological Vector Spaces Math_511(TOPOLOGICAL_VECTOR SPACES).docx	3(3+0)
	Math-512	Algebraic Number Theory Math_512(Algebraic Number Theory).docx	3(3+0)
	Math-513	Theory of Rings and Modules Math_513(Rings & Modules).docx	3(3+0)
	Math-514	Field Extension and Galois Theory Math_514(Field Extensions and Galois Theory).docx	3(3+0)
	Math-515	Lattices and Boolean Algebra Math_515Lattices and Bolean Algebras.docx	3(3+0)
ANNEXURE C (Computational Mathematics)	Math-516	Design Theory Math_516(DESIGN THEORY).docx	3(3+0)
	Math-517	Numerical Solutions of PDEs Math_517Numerical solution of PDE's.docx	3(3+0)
	Math-519	General Theory of Relativity MS_GR.docx	3(3+0)
	Math-520	Computer Aided Geometric Design Math_520CAGD.docx	3(3+0)
	Math-521	Optimization Theory Math_521_OpTheory_revised_DrShazia_javed.docx	3(3+0)
	Math-522	Approximation Theory Math_522Approximation theory.docx	3(3+0)
	Math-523	Numerical Solutions of Integral Equations Math_523numerical solution of integral eq.docx	3(3+0)
	Math-524	Advanced Graph Theory Math_524ADVANCEDGRAPHTHEORY_DrImrana.docx	3(3+0)

	Math-525	Combinatorics Math_525COMBINATORICS.docx	3(3+0)
	Math-526	Perturbation Techniques MS_526(PERTURBATION_MS).docx	3(3+0)

Curriculum distribution:

Table 4.3 shows curriculum distribution of mathematics

Semester	Course No:	Category (Credit Hours)			
		Annexure A	**Annexure B**	**Annexure C**	**Thesis**
I	Math-501	3			
I	Math-502	3			
I	Math-526			3	
I	Math-520			3	
II	Math-519			3	
II	Math-514		3		
II	Math-521			3	
II	Math-524			3	
III-IV					
Total		6	3	15	
Minimum Requirements	-	-	-	-	

Table 4.3 **Curriculum course requirements**

Standard 2.1: The curriculum must be consistent and supports the program's documented objectives.

- T**he program content (courses) meets the program objectives**:
  The courses are designed according to the need of the day and to equip the MS students with the innovative research skills of international standards in the areas of Applied Mathematics/Computational Mathematics/Pure Mathematics so that the successful graduates can serve nationally as well as globally through the best of knowledge, skills and ethics.

- Complete the **Table 4.4 linking courses to program outcomes**. List the courses and tick against relevant outcomes. A sample of such a matrix is shown below.

Courses or	**Program Outcomes**

Group of Courses	1	2	3	4	5	6	7
ANNEXURE A	×			×	×	×	×
ANNEXURE B	×			×			×
ANNEXURE C		×	×	×	×		×

Table- 4.4: Courses versus Program Outcomes

Standard 2.2: Theoretical background, problems analysis and solution design must be stressed within the program's core material.

Table 13: **Elements of Courses**

Elements	Courses (with codes)	No of Courses
Theoretical background	Special Theory of Relativity (Math-503) Advanced Group Theory-I (Math-509) Advanced Group Theory-II (Math-510) Theory of Rings and Modules (Math-513) Lattices and Boolean Algebra (Math-515)	05
Problem solving and Solution design	Advanced Functional Analysis (Math-501) Advanced Numerical Analysis (Math-502) Riemannian Geometry (Math-504) Operations Research (Math-505) Research Methodology (Math-506) Algebraic Topology (Math-507) Advanced Mathematical Physics (Math-508) Topological Vector Spaces (Math-511) Algebraic Number Theory (Math-512) Field Extension and Galois Theory (Math-514) Design Theory (Math-516) Numerical Solutions of PDEs (Math-517) General Theory of Relativity (Math-519) Computer Aided Geometric Design (Math-520) Optimization Theory (Math-521) Approximation Theory (Math-522)	19

	Numerical Solutions of Integral Equations (Math-523) Advanced Graph Theory (Math-524) Combinatorics (Math-525) Perturbation Techniques (Math-526)	

Standard 2.3: The curriculum must satisfy the core requirements for the program, as specified by the respective accreditation body.

The MS program comprises of 36 credits hours of course work and a research thesis which meets HEC requirement.

Standard 2.4: The curriculum must satisfy the major requirements for the program as specified by the respective accreditation body.

The curriculum satisfies all the requirements of HEC for the MS in Mathematics program

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.

Not Applicable.

Standard 2.6: Information technology component of the curriculum must be integrated throughout the program.

IT Components	**Courses (with codes)**	**No of Courses**
Require Matlab/ Mathematica /Maple	Advanced Numerical Analysis (Math-502) Numerical Solutions of PDEs (Math-517) Computer Aided Geometric Design (Math-520) Optimization Theory (Math-521) Numerical Solutions of Integral Equations (Math-523)	06

	General Theory of Relativity (Math-519)	

- These courses require skills of programming languages such as Matlab, Mathematica and Maple for numerical experiments and modeling applications.

Standard 2.7: Oral and written communication skills of the student must be developed and applied in the program.

- The seminar presented by students, and their participation in conferences, workshops and seminars improve their oral communication skills.
- The written communication skills are improved by research paper writing for journals of high academic standards and conference publications.
- The course of research methodology is designed to teach the students how to do productive research and to enhance their skills of academic writing.

CRITERION 3: LABORATORIES AND COMPUTING FACILITIES

There is laboratory for MS research students. They have to do their research work in library or computer lab of BS students. The students have to vacate the lab at the time of BS classes assigned in computer lab. The lab computers have register version of Microsoft Office and Mathematica that is helpful for MS. research students. However, they need registered versions of other software too. The most needed are:

- Matlab;
- Latex.

Standard 3.1: Manuals/documentation/instructions for experiments must be available and readily accessible to faculty and students.

- The students and faculty have adequate and timely access to the Springer and Elsevier.
- MS research students use the lab of undergraduate (BS) students that consists of 40 computers, having latest version of windows installed in them along with some registered software like Microsoft Office and Mathematica.
- The MS students don't have any research room, neither are they are offered any work station or computer laboratory by the department. The facilities provided to research students are not sufficient as compared with similar departments in reputable institutions.

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

- The program leaders and the module leaders supervise and provide practical guidance to each student.

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

- The computing infrastructure of the Math department is not appropriate enough to fulfill the requirements of the students and faculty members. Only two computers have been provided to the department for official use.

CRITERION 4: STUDENT SUPPORT AND ADVISING

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

- The strategy for programs (courses) offering is controlled. The BS Mathematics and MS Mathematics courses are offered once a year.

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

- The effective student/faculty interaction in programs taught by more than one faculty members is streamlined by coordination of these faculty members and the quality is maintained through any curriculum which is adopted for the particular module.
- The programs are structured to ensure effective interaction between students, faculty and the director. The students require extra help are provided services through tutorials, questions and answers. Questions are encouraged by the faculty from the students. Seminars are arranged where the students are free to discuss the topics relating to the program. Debates are initiated. The students are free to interact with the director in case of any shortcoming.

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:

- The students are provided guidance regarding the completion of the programs and having access to qualified faculty as well as student counseling. The students are encouraged to bring forward their suggestions and complaints.

CRITERION 5: PROCESS CONTROL

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:

MS Mathematics [2 Years Degree Program]

This is a 2 year degree program with minimum 30 credit hours. The program is divided in 4 semesters with 2 semesters each year.

Eligibility Criteria

Female students having BS Mathematics 4 Year Degree Program (minimum 134 credit hours) with at least 16 years of education securing more than 2.5 CGPA can apply for admission.

Admission Criteria

Admission is strictly made on merit on the basis of the following weight age:

Matriculation	10%
Intermediate	10%
Graduation	20%
Written Test	50%
Interview	10%
Total	100%

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:

- Advertisements are made in leading newspapers and on Lahore College for Women University website. The student academic progress is monitored regularly by the Module Leader and regular written examination system. The process of registration and monitoring are reviewed once in a year three months before the date of admission.
- Students requiring admission in MS Mathematics programs who have qualified from private universities are required to give equivalence certificates as per rules of Lahore College for Women University. Such students can also apply for exemption in

specific modules. Such exemptions are granted by the Academic Council headed by the Dean, Institute of Engineering & Technology Management.

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 its objectives:

- The standards are clearly indicated in the University Calendar which are followed. Qualifications which are required for each module are kept in mind. The criteria for recruiting are, qualification, experience which are judged through analysis of CVs and personal interviews. In case of permanent faculty members, the recruiting is done by a board constituted by Lahore College for Women University whereas; visiting faculty members are recruited by a board constituted by the Institute. The input of the students for maintaining the quality of the teachers is done by evaluating the teachers regularly once in a semester by the students. The results of these studies are sent to the teachers who are asked to improve and in extreme cases, replacements are made.
- An Annual Confidential Report (ACR) is initiated by the Dean annually for each member of staff and retention of the staff, their increment and promotion are based on ACRs.
- The faculty members performing well are rewarded by increment and honorariums. Good working conditions provided job satisfaction, pays, proving facilities like Ph.D. programs and scholarships are incentive to faculty member who perform well.

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:

- The process and procedure to ensure that the teaching and delivery of the program material to the students emphasizes active learning. For instance, exercises based on practicality of the knowledge given to the students and

research laboratories initiated at the end of the program. Process is monitored and assessed regularly.

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.

- In order to ensure that graduates / outgoing students have completed the requirement of the programs are based on standards.
- The semester rules have been adopted by Computer Science department and QEC and the Head of Department ensure their compliance.
- The operation is reviewed once a year and is documented as Management of Academic Programs.

CRITERION 6: FACULTY

Standard 6.1: There must be enough full time faculty who are committed to the program to provide adequate coverage of the program areas/courses with continuity and stability. The interests and qualifications of all faculty members must be sufficient to teach all courses, plan, modify and update courses and curricula. All faculty members must have a level of competence that would normally be obtained through graduate work in the discipline. The majority of the faculty must hold a Ph.D. in the discipline:

- There is adequate full time faculty which provides adequate coverage of the program with continuity and stability. The interest and the qualifications of all faculty members are pre-judged and monitored for each module forming a part of the program. The level of competency of the faculty members are evaluated at time of induction and monitored during teaching.

Program Area of Specialization	**Courses in the Area and Average Number of Semesters per Year**	**Number of faculty Members in Each Area**	**Number of Faculty with Ph. D Degree**
Area 1. **Pure Mathematics**	**12 Courses Available;** **2 Semesters**	**3**	**3**

Area 2. **Computational Mathematical**	**11 Courses Available;** **2 Semesters**	**5**	**5**
Area 3. **Applied Mathematics**	**3 Courses Available;** **2 Semesters**	**2**	**2**
Total	**26 Courses Available**	**10**	**10**

Table 4.6: Faculty Distribution by Program Areas

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:

- All the faculty members remain current in the disciplines and sufficient time is provided for scholaric activities and professional development. Effective program for faculty development is in place. They are encouraged to attend international seminars and workshops.

Standard 6.3: All faculty members should be motivated and have job satisfaction to excel in their profession:

- The faculty members are regularly motivated and efforts are made to provide job satisfaction so that they excel in their profession.

CRITERION 7: INSTITUTIONAL FACILITIES

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

- Department building is fully equipped with all latest new trends.
- Internet facility is available in each lab.

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:

- Almost every up-to-date book is available in library covers all the areas of courses.
- Library provides services of books borrowing and adequate reading space.

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

- 4 fully equipped class rooms.
- Office of HOD.
- Faculty Staff Room

CRITERION8: 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 teachers and scholars:

- Teachers are recruited on the basis of criterion established by the University.
- Existing faculty is sent to different courses of teaching organized to update the knowledge.
- Secretarial support is provided to the teachers to meet the working needs.

Standard 8.2: There must be an adequate number of high quality graduate students, research assistants and Ph.D. students:

- Entry tests and interviews are conducted before admitting the students in our post graduate programs to ensure the intake of high quality and capable students. Also the admission criteria ensure the intake of high quality students (**see Table: 4**).

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

- 34 books were purchased by Post graduate library for Rs-91,010/ during 2015-2016 and no book is purchased during 2016-2018.
- There is a computer lab with 30 computers.