

Shree Manibhai Virani & Smt. Navalben Virani Science College, Rajkot
(Autonomous)
Affiliated to Saurashtra University, Rajkot.

BOARD OF STUDIES - MATHEMATICS

Date: 26.09.2020

Time: 04:00pm

Venue: Online Meeting
Platform: Google Meet.

AGENDA:

Resolutions are required from the Board of Studies on the following:

1. Welcome and introductory remarks by Chairman.
2. ATR of the recommendations / resolutions made in the previous BoS meeting.
3. Syllabus and evaluation norms of Generic Elective entitled “**Numerical Methods**” for students admitted in 2019-20 & onwards of all PG programs.
4. The syllabi and evaluation norms of following **Competency Enhancement Course- I & II** for students admitted in 2019-20 & onwards:
 - i. **CEC- I:** Short term Course entitled “**Digital Image processing using Python**” for all PG programs Sem.-3 & 4
 - ii. **CEC-II:** “**Writing Summary of a Research paper and Book review**” for M.Sc. Mathematics Sem.-4
5. Online TL & E methodologies/ strategies adopted for A.Y. 2019-20 & 2020-21 as per UGC, Government and University preventive guidelines for Covid-19 pandemic.
6. Adoption and implementation of UGC – Learning Outcomes based Curriculum Framework (LOCF) for Undergraduate Education from A.Y. 2021-22 in harmony with National Education Policy-2020.
7. Updation of List of Question Paper Setters and Examiners-Theory & Practical for UG and PG Programs.
8. Any other.

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BoS Members: -

S. No.	Name	Designation	Present / Absent
1.	Mr. Jignasu N. Chauhan	Head of the Department, Chairman	Present
2.	Dr. Rakhimol V. Issac	Member Secretary	Present
3.	Dr. Samir K. Vaidya	Subject Expert, VC-Nominee	Present
4.	Mr. V. N. Vaghasia	Subject Expert, AC nominee	Present
5.	Mrs. Jayshri Joshi	Subject Expert, AC nominee	Present
6.	Mr. M. L. Joshi	Faculty member	Present
7.	Mrs. Nisha K. Nesadia	Faculty member	Present
8.	Mr. Parag D. Ajani	Faculty member	Present
9.	Mr. Punit B. Vadher	Faculty member	Present
10.	Mrs. Miral P. Ambavi	Faculty member	Present
11.	Mr. Jayesh R. Vaghela,	Member from Industry/ Corporate Sector/ Allied Area	Present
12.	Dr. Jeegnesh Bosamiya,	Member Alumnus	Present

MINUTES OF THE BoS MEETING

The BoS in Mathematics met as indicated above, and discussed on the above Agenda. All the members appreciated the material presented to them by the department with respect to agenda. Sharing their expertise with proactive inputs, all the BoS members deliberated on the agenda and unanimously resolved that Syllabus (and other points described as per agenda above) as appended are to be recommended to Academic Council for approval:

1. Welcome and introductory remarks by Chairman.

The Chairperson started the meet with a small and sincere prayer to Almighty for the health and wellbeing of all the COVID-19 patients, Corona warriors and the families which have suffered emotionally, physically, personally, mentally or economically during this pandemic. May the Almighty bless all of us and take all of us out of this global emergency at the earliest.

Chairman welcomed all the board members. As this is a new formation of the Board of Studies – Mathematics, the feelings of gratitude expressed towards the previous members expressed for their kind and able contribution towards the effective implementation of academic autonomy by the chairman. The new members were also introduced and warmly welcomed. The Chairman extended a warm welcome to all the members of the Board of Studies to the first meeting after conferment of extension of the autonomous status (up to 2023-24) to the college by UGC. The members were informed about the visit of UGC expert Committee for the Review of the Extension of Autonomy on 2nd and 3rd May 2019.

The members were informed that due to C-19 pandemic and first national lockdown on 22nd March 2020 followed by Phase-1 to till date; the college has carried out various activities for faculty and students:

- Three Blood donation camps for the benefit of thalassemia patients (104-units) were organized in association with Red Cross Blood Bank, Atmiya University and Saurashtra University during April-2020.
- Following events were organized in association with Atmiya University, Rajkot.

Event	Topic	Date	Resource Person
OBE – FDP (02)	Rubrics as an Assessment Tool - Part I	28-04-20	Prof. Sheela Ramachandran Pro-Chancellor, Atmiya Uni., Rajkot
	Rubrics as an Assessment Tool - Part II	06-05-20	

Event	Topic	Date	Resource Person
Webinar (05)	Development of Testing-Kits & Global Diagnostics Methodologies for COVID-19	23-05-20	Dr. Vraj Rabadia, Head, Non-Clinical Discovery, ApoPharma Inc, Apotex, Toronto, Canada
	Technologically Important Materials	17-06-20	Prof. S. Kalainathan, Director, Centre for Crystal Growth, VIT, Vellore, TN
	Understanding Innate Immunity in CANCER	18-06-20	Dr. Riva Verma, Cancer Immunology, Uni. of Singapore
	Electronic Materials & Devices for Select Space & Defense Applications - An Overview	19-06-20	Prof. V. N. Mani, Sr. Scientist-E, Centre of Materials for Elec. Tech., IT Dept., Govt. of India, Hyderabad
	Relevance of X-Rays : A WONDER RADIATION (For Men and Materials)	20-06-20	Prof. Rajni Kant, Dean-Faculty of Science, CoE, Uni. of Jammu, Jammu Tawi
E-Content FDP (01)	E-content development: Video Recording & Editing	9 th & 10 th June 2020	ICT experts of the college and Atmiya University.
MS Teams-FDP (02)	Online Teaching using MS-Teams	17 th to 20 th June 2020	KCG and Microsoft Trainers (for 1. Principal + ETRP 2. All teaching staff)
NEP-FDP (01)	National Education Policy 2020 - Overview	23-09-20	Dr. Y. M. Jayaraj, Hon. VC, Pravara Institute of Medical Sciences, Loni Bk, MH

- Following student centric co/extra-curricular activities were organized.

Day	Competition	Date	Remark
Gujarat Establishment	Essay, Painting and Poem	01-05-20	Saptadhara Competitions
World Environment	Quiz	05-06-20	In association with Gujarat Pollution Control Board, Rajkot
International Yoga	Quiz	21-06-20	In association with Gujarat State Yoga Board, Gandhinagar

World Photography	Photography	24-08-20	In association Atmiya University, Rajkot
Independence Day	Total 18 NCC cadets, 08 NSS volunteers and NCC officer of the college have served Rajkot district administration for C-19 preventive measures for two months April & May 2020 and they were felicitated for exhibiting extra ordinary courage as Corona warriors.		

- **MOOCs:**

The college has been benefited by the partnership of Atmiya University with COURSERA (American MOOC provider) for free Certificate Courses during the C-19 pandemic.

There is good number of registrations by many faculty & student participants from the department. More than 8 certificate courses have been completed by date: 25th September 2020.

2. **ATR of the recommendations / resolutions made in the previous BoS meeting.**

A detailed action taken report of the recommendations / resolutions made in the previous BoS meeting for UG and PG programs presented, and it was appreciated by all the members unanimously.

Following recommendations / resolutions were made in the previous BoS meeting held on 7th June 2019 for students admitted from **A.Y. 2019-2020** and onwards:

1. Revision of Regulations framed for B.Sc. Mathematics.
2. Revision of **Scheme of Instruction and Examinations** for **B.Sc. Mathematics** programme offered by the Department of Mathematics for **Semesters I to VI**.
3. Revision of **syllabi** of all courses offered by Department of Mathematics including Core, Allied, Elective and Unique Courses for **UG** programmes for **Semesters I to VI**.
4. Revision of syllabus for **Part-III SEC – II Co-Curricular Courses**.
5. Revision of titles and syllabi for **Part – III SEC-III – Value-Added Courses**.
6. Revision of Syllabi for the **Generic Electives (Part - II)** offered by the department of mathematics for other **UG** Programmes.
7. Revision of Regulations framed for M.Sc. Mathematics.
8. Revision of **Scheme of Instruction and Examinations** under **OBE** scheme for **M.Sc. Mathematics** programme offered by the Department of Mathematics for **Semesters I to IV**.

9. Revision of **Syllabi** of all courses including Core, Allied, Elective and Unique Courses for **M.Sc. Mathematics** programme under **OBE** scheme for **Semesters I to IV**.
10. Syllabi for the **Generic Electives** offered by the department of mathematics for other **PG** Programmes.
11. Syllabi for the **Discipline Specific Electives DSE ID** offered by the department of mathematics for other **PG** Programmes.
12. Syllabi for the **Discipline Specific Electives DSE ID** offered by the department of mathematics for other **M.Sc. IT and Computer Application** Programmes.
13. Question paper pattern for UG and PG (OBE) programmes.
14. Updated list of Examiners and Paper Setters for theory and practical for all courses offered by the Department of Mathematics.
15. Any other agenda with permission of the Chair.

The above recommendations / resolutions made in the previous BoS meeting were approved in the academic council meeting held on 12th June 2019 and implemented by the department.

3. Syllabus and evaluation norms of Generic Elective entitled “Numerical Methods” for students admitted in 2019-20 & onwards of all PG programs.

The syllabus and evaluation norms **framed** for a new Generic Elective Course entitled “**Numerical Methods**” in addition to the existing Generic Elective course entitled “**Research Tool: An Introduction to Latex**” for students admitted in 2019-20 & onwards of all PG programs. **-Enclosures I(A) and I(B)**

Course Code	Name of the course	Semester	Credit	Remark
19PMTGE302	Numerical Methods	III	2	This course is in addition to the existing Generic Elective course entitled “ Research Tool: An Introduction to Latex ”

- 4. The syllabi and evaluation norms of following Competency Enhancement Course- I & II for students admitted in 2019-20 & onwards:**
- i. **CEC- I:** Short term Course entitled “**Digital Image processing using Python**” for all PG programs Sem.-3 & 4
 - ii. **CEC-II:** “Writing Summary of a Research paper **and Book review**” for M.Sc. Mathematics Sem.-4

The syllabi and the evaluation norms framed for following **Competency Enhancement Courses** for students admitted in **2019-20** & onwards:

– Enclosure – II (A) & II (B).

Component Course Code	Name of the course	Course offered to the program	Semester	Credit	Remark
CEC-I 19PMTCE301	Short Term Course: Digital Image processing using Python	All PG programs	3 and 4	2	Introduction of new course
CEC-II 19PMTCE401	Writing Summary of a Research paper and Book review	M.Sc. Mathematics	4	2	Change in the title of previous course namely “Writing Summary of a Research paper”

5. Online TL & E methodologies/ strategies adopted for A.Y. 2019-20 & 2020-21 as per UGC, Government and University preventive guidelines for Covid-19 pandemic.

A detailed report on the Online TL & E methodologies/ strategies adopted for A.Y. 2019-20 as follows presented and it was appreciated, the strategies for the A.Y. 2020 – 21 are also discussed and appreciated.

As per the academic calendar A.Y. 2019-20 of the college, the teaching & learning process of all UG, PG & Integrated programs have ended on/before 9th March 2020; the 2nd internal evaluation (i.e. 2nd CIE) was scheduled from 23rd March 2020 and subsequently Semester End Examination (theory) – 2019-20 for all UG, PG & Integrated programs were scheduled from 1st April 2020 & onwards. The SEE (practical) have commenced from 11th March 2020.

Due to Covid-19 pandemic; first National lockdown was observed on 22nd March 2020 followed by Phase-I to till date and as per the approval of the Governing Body of the college (GB in C dated 21/07/2020) based on various circulars / C-19 preventive guidelines of UGC, Education Department and affiliating University; the internal & semester end evaluations – T & P were conducted giving proctored online / offline options to the students in two phases. The internal test was conducted during April / May 2020 and semester end examinations during July / August 2020 for even semesters of following programs.

- B.Sc. Mathematics.

- 5-years Int. B.Sc.-M.Sc. Mathematics
- M.Sc. Mathematics

The online remedial coaching classes were conducted from 2nd week of June 2020 and before Semester End Examination for the above programs.

A.Y. 2020-21

The college has initiated online / offline admission processes on 15th May 2020 as per admission / admission processing committee's resolution the merit list schedule was published on college website on 6th June 2020. The admission counseling was made online as well as at college following the guidelines issued by the Government.

The Department of Education, Government of Gujarat has implemented UDAYAM-Unlimited Digital Advanced Yearlong Academic Method of Learning project for providing Administrative and Academic resources to the HEIs during C-19 pandemic (Education Department, GoG, Circular No. PaRaCh/2020/OnlineEdu/Kh dated 22/06/2020).

The Department of Education, Government of Gujarat has facilitated all the GIA Colleges with Single sign on system-COGENT and Microsoft Teams platform for online Teaching Learning & Evaluation-TLE. The KCG and MS Teams trainers have conducted online two trainings for Principal, ETRP and all staff members. The Government has also established cluster lead college for the rectification of relevant issues and queries.

The Sarvodaya Kelavani Samaj, managing trust of the college have also facilitated with all digital and physical resources required for the conduction of SIP & TLE during Covid-19 pandemic. The college has conducted two days FDP on E-content development: Video Recording & Editing on 9th & 10th June 2020.

Departmental members also contributed to train of faculties of other departments as well as that of the Department of Mathematics by the means of two formal FDPs at the departmental level and a few of informal sessions of hands on trainings to the members of other departments. Departmental members further enriched their knowledge of ICT and the Online TL & E methodologies by self-learning.

The online teaching-learning classes started with Student Induction Program (SIP) for Semester-3 & 5 of UG programs and Semester-3 for PG program in phased manner from 9th July 2020 & onwards for A.Y. 2020-21.

The online Student Induction Program (SIP) followed by teaching, learning & evaluation has started from 25th August 2020 for UG semester-1 students admitted

in 2020-21 as per academic calendar. During five days SIP, thrust was given on Life Skills (VECD), Basic Computer Skill, E-learning Resources and Communication Skills.

As per the academic calendar of the college the first CIA: Component Test-1 for the UG / PG students of semester-3 and 5 of following programs are from 21st to 25th Sept. 2020.

- B.Sc. Mathematics
- M.Sc. Mathematics.

Thus, the Online TL & E methodologies/ strategies adopted for A.Y. 2019-20 & planned for the A.Y. 2020-21 as per UGC, Government and University preventive guidelines for Covid-19 pandemic were very much appreciated and welcomed by the members of the board.

6. Adoption and implementation of UGC – Learning Outcomes based Curriculum Framework (LOCF) for Undergraduate Education from A.Y. 2021-22 in harmony with National Education Policy-2020.

The future plan of the department also proposed and discussed for the implementation of the UGC–LOCF for the **undergraduate education** to be effective from **A.Y. 2021-22** onwards in the harmony with National Education Policy-2020. The members unanimously supported this proposal.

The Learning Outcomes-based Curriculum Framework (LOCF) works towards a more holistic experience for the students, while focusing not just on knowledge delivery in higher education but also on the application of knowledge through field and lab work and emphasizes on application of knowledge to real life experiences. Besides this, students will attain various 21st century skills like critical thinking, problem solving, analytic reasoning, cognitive skills, self-directed learning etc.

The LOCF is a framework based on the expected learning outcomes and academic standards that are expected to be attained by graduates of a program of study and holder of a qualification.

The college (as well as the department) has already implemented Outcome based Education System for M.Sc. programs from 2019-20 & onwards. The college (as well as the department) will come up with the key outcomes that underpin curriculum planning and development at the UG level include Graduate Attributes, Qualification Descriptors, Program Learning Outcomes, and Course Learning Outcomes and Teaching - learning process & Assessment methods for the students admitted in various UG programs from AY 2021-22. The members unanimously supported this proposal.

Departmental LOCF committee

All the faculty members of the Department will pro-actively contribute towards this agenda under the able guidance and periodic inputs from the respected Principal sir and the experts in the field – **Enclosure - III**

7. Updation of List of Question Paper Setters and Examiners-Theory & Practical for UG and PG Programs.

Updated the existing list of Examiners and Paper Setters and the list will be effective for all Semesters for Semester End Examination (SEE) for all the theory and practical courses offered by the Department of Mathematics for all the UG and PG programmes. – **Enclosure – IV.**

8. Any other.

The changes in the Scheme of Instructions and Examinations of MSc Mathematics – **Enclosure-V(A) and V(B)**

- i. The title of the Self Study Course offered in MSc Mathematics Sem 3 **changed** as follows for the students admitted in the academic year 2019-20 and onwards.

Semester	Course Code	Course	Current (OLD) Title	Proposed NEW title	Effective from
III	19PMTCC304	Core 12: Self-Study Course:	Optimization Techniques.	Quantitative Techniques	A.Y. 2019-20 and onwards.

- ii. The evaluation norms and its components of course of Mini Project offered in MSc Mathematics Sem 4 are **changed.** as follows:

Semester	Course Code	Name of the Course	CIA Max Marks	SEE Max Marks	Total Max Marks	Credit
IV	19PMTCC405	Mini Project	100	100	200	4

S. No.	Name of Member	Signature
1.	Mr. Jignasu N. Chauhan	
2.	Dr. Rakhimol V. Issac	
3.	Dr. Samir K. Vaidya	
4.	Mr. V. N. Vaghasia	
5.	Mrs. Jayshri Joshi	
6.	Mr. M. L. Joshi	
7.	Mrs. Nisha K. Nesadia	
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11.	Mr. Jayesh R. Vaghela,	
12.	Dr. Jeegnessh Bosamiya,	