Department of Mathematics
Holy Cross College (Autonomous)
Nagercoil-629004, Kanya kumari District, Tamil Nadu, India.

Minutes of the Board of Studies meeting of the Department of Mathematics

held on 05-02-2019 at 10.00 am

Ref. No. MAT/ BoS 2018-2019/ XIII

The following are the members of the Meeting

Chair Person

Dr. V.M.Arul Flower Mary,M.Sc, M Phil, Ph.D
Associate Professor and Head,
Department of Mathematics
Holy Cross College(Autonomous),
Nagercoil.

University Nominee

Dr. G.Easwara Prasad
Associate Professor and Head,
Department of Mathematics
S.T.Hindu College,
Nagercoil,
Phone No:9443480347

Subject Experts

1. Dr. R.Kala
Professor, Department of Mathematics,
M.S.University,
Tirunelveli
Pnone No: 9486902837
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2. Dr. S. Robinson Chellathurai
Associate Professor, Department of Mathematics,
Scott Christian College,Nagercoil
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Alumna
Ms. Afina Resailaiyan M.Sc, M.Phil
Phone No: 8220868184

Industrialist
D.Jenishiah
Hinduja Global Solutions
Nagercoil

i. Ms. T. Sheeba Helen, M.Sc., M.Phil., B.Ed., -	Member
ii. Dr. M. K. Angel Jebitha, M.Sc., M.Phil., B.Ed., Ph.D., -	Member
iii. Dr. S. Sujitha, M.Sc., M.Phil., B.Ed., Ph.D., -	Member
iv. Dr. V. Sujin Flower, M.Sc., M.Phil., Ph.D., -	Member
v. Dr. J. Befija Minnie, M.Sc., B.Ed., M.Phil., Ph.D., -	Member
vi. Sr. S. Antony Mary, M.Sc., NET, SET., -	Member
vii. Dr. L. Jesmalar, M.Sc., B.Ed., M.Phil., Ph.D., SET., -	Member
viii. Ms. A. Jancy Vini, M.Sc., M.Phil., SET-	Member
ix.Ms. J.C.Mahizha, M.Sc., M.Phil., SET-	Member
x. Dr. K. Jeya Daisy, M.Sc., B.Ed., M.Phil., Ph.D., -	Member
xi . Ms. J. Anne Mary Leema M.Sc., B.Ed., SET., -	Member
xii. Ms. R.N. Rajalekshmi, M.Sc., B.Ed., M.Phil., SET., -	Member
xiii. Ms.S. Kavitha, M.Sc., M.Phil., SET-	Member
xiv. Ms.V. Princy Kala, M.Sc., M.Phil., SET-	Member
xv. Ms.V. Mara Narghese M.Sc., B.Ed., M.Phil., SET., -	Member
xvi. Ms. D. Berla Jeyanthi M.Sc., M.Phil., B.Ed., SET., -	Member
xvii. Dr.C. Jenila, M.Sc., B.Ed., M.Phil., Ph.D., -	Member
xviii. Ms.V.G.Michael Florence, M.Sc., M.Phil., -	Member

xix.	Miss. J.Rashni	–	Student Representative
xx.	Miss. Sirumalar C.L	-	Student representative

The Board of Studies meeting commenced with a prayer by Dr. V.M.Arul Flower Mary. The members of the board, the Chairperson, University Nominee, Subject experts, Industrialist, Alumna, student representatives and faculty of the Department, were present for the meeting.

Chairperson's Address

The Chair Person Dr. V.M. Arul Flower Mary, welcomed the members and introduced them while briefing on the agenda for the conduct of the meeting.

The following items in the Agenda were discussed by the members of the Board.

Agenda

1. Prayer
2. Welcome by the Chairperson
3. Reading of the minutes of the previous meeting
4. Restructuring / Revision of Curriculum of UG
5. Changes / Modification of Curriculum
6. Classification of New Courses
7. Classification of courses as Employability / Entrepreneurship / Skill Development
8. Classification of courses as Local / National / Regional / Global
9. Classification of courses as Crosscutting Issues Gender Equity / Environment and Sustainability / Human Values / Professional Ethics
10. List of Value Added Courses
11. Online Course
12. New measures to be undertaken by the department
13. Feedback and action taken
14. Next Meeting of BoS
15. Any other.

Item 01/BoS.19.02/03: Reading of minutes of the previous meeting

Dr. V.M. Arul Flower Mary read the minutes of the previous meeting which was approved by the members after incorporating the modifications/ suggestions given by the Academic council.

Item 02/BoS.19.02/04: Restructuring / Revision of Curriculum of UG

The overall structure of the curriculum framed in 2017 was accepted by the board.

Course Structure

Distribution of Hours and Credits

Course	Sem. I	Sem II	Sem. III	Sem IV	Sem. V	Sem. VI	Total	
							Hours	Credits
Language	6 (3)	6 (3)	6 (3)	6 (3)	-	-	24	12
English	6 (3)	6 (3)	6 (3)	6 (3)	-	-	24	12
Major Core	6 (5)	6 (5)	6(4) + 5(4)	6(5) + 5(4)	6(5) + 6(5) + 6(5)	6(5) + 6(5) + 5(5) + 5 (5)	74	62
Elective	-	-	-	-	5 (4)	6 (5)	11	9
Project	-	-	-	-	5 (5)	-	5	5
Allied –Theory	4 (4)	4 (4)	5 (5)	5 (5)	-	-	18	18
Allied – Practical	2	2 (2)					4	2
AECC	2 (2)	2 (2)	-	-	-	-	4	4
SBC	-	-	2 (2)	2 (2)	2 (2)	2 (2)	8	8
NMEC	4 (2)	4 (2)	-	-	-	-	8	4
* FC - I (Values for Life)	-	(1)	-	-	-	-	-	1

* FC - II (Personality Development)				(1)				1
* FC - III (HRE)	-	-	-	-	(1)	-	-	1
* FC - IV (WS)	-	-	-	-	-	(1)	-	1
*** SDP - Certificate Course**	-	**(1)**	-	-	-	-	-	**1**
*** SLP - Extension Activity (RUN)**	-	-	**(1)**	-	-	-	-	**1**
*** STP - Clubs & Committees / NSS**	-	-	-	**(1)**	-	-	-	**1**
Total	**30 (19)**	**30 (23)**	**30 (22)**	**30 (24)**	**30 (27)**	**30 (28)**	**180**	**140 + 3**

Total Number of Hours = 180

Total Number of Credits = 140 + 3

***Courses / Programmes conducted outside the regular working hour**

The modified syllabus for the fifth and sixth semesters for the UG programme were approved by the Board.

Courses offered for the students of **B.Sc. Mathematics** are given in the following structure.

SemesterV	Course Code	Course	Hours per week	Credit	Total marks
Part III	MC1751	Linear Algebra	6	5	100
Part III	MC1752	Real Analysis	6	5	100
Part III	MC1753	Graph Theory	6	4	100
Part III	MC1754	Project	5	5	100
Part III	MC1755	Numerical Methods	5	4	100
Part III	MC1756	Fuzzy Mathematics	5	4	100
Part III	MC1757	Object Oriente Programming with C++	5	4	100
Part IV	MSK175	Skill Base Course(*SBC) :Mathematics for Competitive Examination-I	2	2	100
Part IV	HRE175	Foundation Course III - Human Rights Education (HRE)	-	1	100

Semester VI	Course Code	Course	Hours per week	Credit	Total marks
Part III	MC1761	Complex Analysis	6	5	100
Part III	MC1762	Mechanics	6	5	100
Part III	MC1763	Number Theory	5	5	100
Part III	MC1764	Operations Research	5	5	100
Part III	MC1765	Astronomy	6	5	100
Part III	MC1766	Boolean Algebra	6	5	100
Part III	MC1767	Web Designing with HTML	6	5	100
Part IV	MSK176	SkillBased Course(*SBC) :Mathematics for Competitive Examination-II	2	2	100
Part IV	WSC176	Foundation Course IV – Women's Studies (WS)	-	1	100

Self Learning - Extra Credit Course

Semester	Subject code	Title of the paper	Hours/week	Credit
III / V	MC17S1	Discrete Mathematics - I	-	2
IV/ VI	MC17S2	Discrete Mathematics - II	-	2

Value Added Courses

S.No.	Name of the course	Total hours	Credit
I	Training for TNPSC group examinations	30	1
II	Quick Arithmetic for Competitive examinations	30	1

The BoS members approved the Courses in Semester V and Semester VI for UG programme.

Item 03/BoS.19.02/05: Changes / Modification of Curriculum

The following are the revisions and the changes in the syllabus of V Semester & VI semesters.

Sl.No.	Semester	Course Code	Course Title	Changes	
				Removed (if any)	Addition (if any)
1.	V	MC1751	Linear Algebra		Bilinear Forms, Quadratic forms- Reduction of a quadratic form to diagonal form Include Chapter 8 Sections 8.1&8.2
2	V	MC1753	Graph Theory	Theorem 5.10 and Four Colour theorem	
3.	V	MC1755	Numerical Methods	Other difference operators (section 6.2) from unit I	Simpson's (1/3) rd rule and Simpson's (3/8) th rule shifted from unit V to unit IV
4	VI	MC1764	Operations Research		Introduction, Origin and development of O.R – Nature and Features of O.R

					Formulation of L.P.P- Mathematical Formulation of L.P.P- Solution of L.P.P- Graphical Method
5	VI	MC1765	Astronomy	Diagram of Celestial Sphere , Article 84 and 85	

The BoS members recommended the following books based on the modified/Revised syllabus for **B.Sc. Mathematics.**

Operations Research - Kanti Swarup, P.K. Gupta, Man Mohan

Chapter 1: 1.1 to 1.3 and 1.10

The following suggestions are made by the subject experts

1. LATEX, MATLAB and computer based courses can be included in Value Added courses
2. The advance learners are motivated to do MOOC courses at least one in each academic year

Item 04/BoS.19.02/06 Classification of New Courses

The members of the Board classified the following UG courses as new courses

Sl.No	Semester	Course Code	Name of the Course	New Courses
1.	V	MC1751	Linear Algebra	✓
2.	V	MC1752	Real Analysis	-
3.	V	MC1753	Graph Theory	-
4.	V	MC1754	Project	✓
5.	V	MC1755	Numerical Methods	-
6.	V	MC1756	Fuzzy Mathematics	✓
7.	V	MC1757	Object Oriented Programming with C++	-
8.	V	MSK175	Skill Based Course(*SBC :Mathematics for Competitive Examination-I	✓
9.	VI	MC1761	Complex Analysis	-
10.	VI	MC1762	Mechanics	-
11.	VI	MC1763	Number Theory	-
12.	VI	MC1764	Operations Research	-
13.	VI	MC1765	Astronomy	✓
14.	VI	MC1766	Boolean Algebra	✓

15.	VI	MC1767	Web Designing with HTML	✓
16.	VI	MSK176	Skill Based Course(*SBC :Mathematics for Competitive Examination-II	✓

Item 05/ BoS.19.02/ 07: Classification of courses as Employability/ Entrepreneurship/ Skill Development

Sl.No	Semester	Course Code	Name of the Course	Employability	Entrepreneurship	Skill development
1.	V	MC1751	Linear Algebra	-	-	✓
2.	V	MC1752	Real Analysis	-	-	✓
3.	V	MC1753	Graph Theory	✓	-	✓
4.	V	MC1754	Project	-	-	✓
5.	V	MC1755	Numerical Methods	-	✓	✓
6.	V	MC1756	Fuzzy Mathematics	-	-	✓
7.	V	MC1757	Object Oriented Programming with C++	✓	-	✓
8.	V	MSK175	Skill Based Course(*SBC) :Mathematics for Competitive Examination-I	✓	-	✓
9.	VI	MC1761	Complex Analysis	-	-	✓
10.	VI	MC1762	Mechanics	✓	-	✓
11.	VI	MC1763	Number Theory		-	✓
12.	VI	MC1764	Operations Research	✓	-	✓
13.	VI	MC1765	Astronomy	✓	-	✓
14.	VI	MC1766	Boolean Algebra	-	-	✓
15.	VI	MC1767	Web Designing with HTML	✓	-	✓

16.	VI	MSK176	Skill Based Course(*SBC) :Mathematics for Competitive Examination-II	✓	-	✓

Item 06/BoS 19.02/08: Classification of courses as Local / National / Regional / Global

The members of the Board classified the UG courses in the new structure based on Local / National / Regional / Global

Courses addressing local relevance - Nil

Sl.No	Semester	Course Code	Name of the Course	National	Regional	Global
1.	V	MC1751	Linear Algebra	✓	-	-
2.	V	MC1752	Real Analysis	✓	-	-
3.	V	MC1753	Graph Theory	✓	-	-
4.	V	MC1754	Project		-	-
5.	V	MC1755	Numerical Methods	✓	-	-
6.	V	MC1756	Fuzzy Mathematics	✓	-	✓
7.	V	MC1757	ObjectOriented Programming with C++	-	-	✓
8.	V	MSK175	Skill Based Course(*SBC :Mathematics for Competitive Examination-I	-	✓	-
9.	VI	MC1761	Complex Analysis	✓	-	-
10.	VI	MC1762	Mechanics	✓	-	-
11.	VI	MC1763	Number Theory	✓	-	-
12.	VI	MC1764	Operations Research	✓	-	-
13.	VI	MC1765	Astronomy	-	-	✓
14.	VI	MC1766	Boolean Algebra	✓	-	-
15.	VI	MC1767	Web Designing with HTML	✓	-	-
16.	VI	MSK176	Skill Based Course(*SBC :Mathematics for Competitive Examination-II	-	✓	-

Item 07/ BoS. 19.02/ 09: Classification of courses as Crosscutting Issues Gender Equity / Environment and Sustainability / Human Values / Professional Ethics

The members of the Board classified the UG courses in the new structure based on Crosscutting Issues Gender Equity / Environment and Sustainability / Human Values / Professional Ethics

Sl.No	Semester	Course Code	Name of the Course	Enviroment and Sustainability
1.	V	MC1751	Linear Algebra	-
2.	V	MC1752	Real Analysis	-
3.	V	MC1753	Graph Theory	-
4.	V	MC1754	Project	-
5.	V	MC1755	Numerical Methods	-
6.	V	MC1756	Fuzzy Mathematics	-
7.	V	MC1757	Object Oriented Programming with C++	-
8.	V	MSK175	Skill Based Course(*SBC :Mathematics for Competitive Examination-I	-
9.	VI	MC1761	Complex Analysis	-
10.	VI	MC1762	Mechanics	-
11.	VI	MC1763	Number Theory	-
12.	VI	MC1764	Operations Research	-
13.	VI	MC1765	Astronomy	✓
14.	VI	MC1766	Boolean Algebra	-
15.	VI	MC1767	Web Designing with HTML	-
16.	VI	MSK176	Skill Based Course(*SBC :Mathematics for Competitive Examination-II	-

Item 08/BoS.19.02/10: List of Value Added Courses

The members of the Board listed the following Value Added Courses

S.No.	Name of the course	Total hours	Credit
I	Training for TNPSC group examinations	30	1
II	Quick Arithmetic for Competitive examinations	30	1

Item 09/BoS.19.02/11: Online Course

The members of the Board gave the following suggestion regarding online courses.
The advance learners are motivated to do MOOC courses at least one in each academic year

Item 10/ BoS.19.02/12: New measures to be undertaken by the department

- Create a platform for students to showcase their research projects and participate in conferences or symposiums.
- Project-based learning to enhance student engagement.
- Conduct regular surveys and feedback sessions to gather input from students and faculty for continuous improvement.

Item 11/ BoS.19.02/13: Feedback and Action Taken

Feedback Received

The curriculum should strike a balance between theoretical rigor and practical applications Opportunities for independent research and projects should be provided to encourage critical thinking and innovation among students.

Action Taken

The department has introduced a revised curriculum that emphasizes both theoretical understanding and practical application,

In response to feedback, computational tools and programming languages have been integrated into courses across the curriculum, enhancing students' problem-solving abilities and preparing them for modern challenges.

Sl.No	Student Representative	Feedback	Action Taken	Signature
1	Miss. J. Rashni	Need more of application papers	Continuously improving the curriculum to meet the needs of students	Rashni.J
2	Miss. Sirumalar C.L	Integration of computational tools and programming languages is essential to enhance problem-solving skills	In response to feedback, computational tools and programming languages have been integrated into courses across the curriculum	Sirumalar C.L

Item 12/BoS.19.02/14: Next Meeting of the BoS

The members of the board suggested to have the next meeting of BoS in the month of August, 2020. The meeting ended with the vote of thanks by Ms. T. Sheeba Helen.

Alumna

Industrialist

V. M. Arul Flower 5/2/2019

5/2/2019

5/2/2019

5/2/2019

V. Evyn Flower 5/2/19

5/2/19

S. Antony Mary 5/2/2019

5/2/19

5/2/19

5/2/19

5/2/19

J. Anne Mary Leema 5/2/2019

P. N. Pajalakshmi 5/2/2019

5/2/2019

5/2/19

05/02/2019

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