

Minutes of the Board of Studies in Mathematics 2018-2019

SACRED HEART COLLEGE KOCHI

Minutes of the board of studies,
Meeting held on 18th July 2018
The meeting began at 4.00 P.M. The following
members ^{were} present

- 1) Dr. M. N. Nampoothiri C ✓
- 2) Dr. A. Vijayakumar ✓
- 3) Prof. M.P. Sebastian ✓
- 4) Dr. Jeenu Kurian ✓
- 5) Prof. Teet Kurian Mattam ✓
- 6) Prof. Sanil Jose ✓
- 7) Prof. Didimos K.V ✓

The Board of Studies of mathematics was held on 18/07/2018, Wednesday in the department of Mathematics, Sacred Heart College, Thevara. The meeting began at 4.00 P.M. The meeting approved the following:

- Revision of the Syllabus of selected Core Courses of B.Sc Mathematics Programme.
- Revision of the Syllabus of Complementary Courses in Mathematics.
- Revision of the Question Paper pattern.
- Revision of the Syllabus of selected Core Courses in Mathematics of the B.Sc (Computer Applications Programme)
- Revision of the Mathematics Core Course for B.C.A. Courses.

The modifications in the syllabus are summarised in the following tables:

Changes in the syllabus for B.Sc Mathematics

CORE COURSES

Sl. No.	Semester	Code	Number of Credits	Course Title		Remarks (Changed/Not Changed)
				Present Syllabus	Revised Syllabus	
1	1	19UCRMAT1	3	Foundation of Mathematics	Calculus	Changed
2	2	19UCRMAT2	3	Analytic Geometry, Trigonometry and Matrices	Advanced Calculus and Trigonometry	Changed
3	3	19UCRMAT3	4	Calculus	Vector Calculus, Theory of Equations and Matrices	Changed
4	4	19UCRMAT4	4	Vector Calculus	Analytic	Changed

					Matrices	
4	4	19UCRMAT4	4	Vector Calculus, Theory of Equations and Numerical Methods.	Analytic Geometry, Numerical Methods and Number Theory	Changed
5	5	19UCRMAT5	5	Mathematical Analysis	Real Analysis - I	Changed
6	5	19UCRMAT6	5	Differential Equations	Differential Equations	Not Changed
7	5	19UCRMAT7	5	Abstract Algebra	Algebra	Changed
8	5	19UCRMAT8	5	Fuzzy Mathematics	Human Rights and Mathematics for environmental studies	Changed
9	5	19UOCMAT1	3	Open Course	Open Course	Not Changed
10	6	19UCRMAT9	4	Real Analysis	Real Analysis - 2	Changed
11	6	19UCRMAT10	4	Complex Analysis	Complex Analysis	Not Changed
12	6	19UCRMAT11	4	Discrete Mathematics	Graph Theory and Linear Algebra	Changed
13	6	19UCRMAT12	4	Linear Algebra and Metric Spaces	Fourier Series, Laplace Transforms and Metric Spaces	Changed
14	6	19UCRMAT13	3	Choice Based Course	Choice Based Course (The	Changed

					syllabus of the course Operations Research has been revised	
15	6	19UCRMATP5	2	Project		

COMPLEMENTARY COURSES

Sl No	Semester	Course Code	No of Credits	Name of Course		Changed/ Not Changed
				Existing syllabus	Revised Syllabus	
1	1	19UCPMAT1	3	Differential Calculus and Trigonometry	Calculus I	Changed
2	2	19UCPMAT2	3	Integral Calculus and Matrices	Calculus II and Numerical Analysis	Changed
3	3	19UCPMAT3	4	Vector Calculus, Differential Equations and Analytic Geometry	Differential Equations, Matrices and Trigonometry	Changed
4	4	19UCPMAT4	4	Fourier Series, Differential Equations, Numerical Analysis and Abstract Algebra	Fourier Series, Laplace Transforms, Fourier Transforms and Groups	Changed

Changes for B.Sc Computer Applications

Sl. No.	Semester	Code	Number of Credits	Course Title		Remarks (Changed/Not Changed)
				Present Syllabus	Revised Syllabus	
1	1	19UCRCMT1	3	Foundation of Mathematics	Foundation of Mathematics	Not Changed
2	2	19UCRCMT2	3	Analytic Geometry, Trigonometry and Matrices	Calculus	Changed
3	3	19UCRCMT3	4	Calculus	Vector Calculus, Trigonometry and Matrices	Changed
4	4	19UCRCMT4	4	Vector Calculus,	Analytic	Changed

				Theory of Equations and Numerical Methods.	Geometry, Numerical Methods and Theory of Equations	
5	5	19UCRCMT5	4	Mathematical Analysis	Real Analysis - I	Changed
6	5	19UCRCMT6	4	Differential Equations	Human Rights and Mathematics for environmental studies	Changed
7	5	19UCRCMT7	4	Real Analysis	Graph Theory and Numerical Analysis	Changed

Changes for BCA

One module in the second semester is to be replaced with numerical analysis or number theory.

B :Changes in the question paper pattern Revised Pattern

	Part A (2 Marks Questions)	Part B (5 Marks Questions)	Part C (10 Marks Questions)
Number of questions to be answered	10	5	3
Total number of questions	12	8	4
Total Marks in Each Section	20	25	30
Total Marks for each course in End Semester Evaluation: 75			
Total Marks for each course in Continuous Internal Assessment:25			

- Dr M.N.N.Nampoothiri suggested a reference book for Ordinary Differential equations authored by Nandakumar and Raju.
- Dr A Vijayakumar suggested that the course 'Abstract Algebra' be renamed as ' Algebra'.
- Dr A Vijayakumar suggested that a book on History of Indian Mathematics by P.P. Divakaran be included as a reference text. He also suggested that the name of the publisher and year of publication be included for all references in the syllabus. He suggested Graph Theory by Narsingh Deo as a reference text for Graph Theory.
- The Board suggested that two papers, namely 1)Linear Algebra and Metric Spaces 2) Fourier Series, Laplace transform and Graph Theory , in the sixth semester be modified as follows.1) Graph theory and Linear Algebra 2) Fourier Series, Laplace Transform and Metric Spaces.
- Changes in the question paper pattern were approved with the modification that the number of questions to be answered in section C to be 3 out of 4.

The meeting came to an end at 5.00 P.M.

Submitted to the Academic Council for Approval and Ratification.

Minutes of the Board of Studies meeting held on 15/03/2019. The meeting began at 11.15 A.M in the department. The following members were present.

- 1) Prof. M.P. Sebastian, Associate Professor and H.O.D. ✓
- 2) Prof. Azim K.R., IISER, Trivandrum ✓
- 3) Shri. Saji Mathew C.A. ✓
- 4) Dr. Jeenu Kurian, Asst. Professor ✓
- 5) Ms. Jee Kurian Mathan, Asst. Professor ✓
- 6) Dr. Didimus K.V., Asst Professor ✓
- 7) Mr. Sami Jose, Asst Professor ✓

The Board of studies in Mathematics met on 15th March, 2019 in the department at 11.30 am and have taken the following decisions.

1. The Board of studies in Mathematics decided to implement the revised syllabus of MSc. Mathematics programme from 2020-2022 batch onwards. Board of studies discussed a draft of the new syllabus by comparing it with the existing University syllabus. The new syllabus will be ready for submission to the University before December 2019.
2. The Board of studies proposed to make changes in the revised syllabus (approved by University) of BCA Semester 2 having course code 19U2CPCMT2 and course title Discrete Mathematics.
 - a. In the revised syllabus the course code is wrongly given as 19U1CRCMT2 and it is changed to 19U2CPCMT2.
 - b. In the revised syllabus the course credit is wrongly given as 3 and it is changed to 4.
 - c. The 2nd and 4th modules are retained and 1st and 3rd modules are replaced by Solution of equations and Numerical solutions for Calculus.

D.T.O.

3. The Board of studies suggested the following course distribution for the PG programme.

First Semester	Linear Algebra
	Abstract Algebra
	Real Analysis
	Operations Research
	Number Theory
Second Semester	Basic Topology
	Measure Theory and Integration
	Ordinary Differential Equations
	Graph Theory
	Complex Analysis
Third Semester	Advanced Topology
	Advanced Complex Analysis
	Functional Analysis
	Partial Differential Equations
	Multivariate Calculus
Fourth Semester	Spectral Theory
	Differential Geometry
	Probability Theory
	Numerical Analysis
	Theory of Wavelets
	Coding Theory & Cryptography
	Algebraic Topology
	Commutative Algebra
	Harmonic Analysis
	Complex Dynamics
Fractals	

Book suggestions:

1. Probability Theory and Examples, Cambridge University, Durrett
2. Functional Analysis, Balmohan V Limaye
3. Topology, James R Munkres

It was suggested to introduce an Add on course on Latex Typesetting and Python programming.

40% of internal marks for project evaluation should be allotted in the third semester itself.