DON BOSCO ARTS & SCIENCE COLLEGE

ANGADIKADAVU

(Affiliated to Kannur University Approved by Government of Kerala)

ANGADIKADAVU P.O., IRITTY, KANNUR – 670706

COURSE PLAN

MSc Mathematics

(2020 – 22)

SEMESTER - II

ACADEMIC YEAR - (2020-21)

II Semester MSc Mathematics (2020 - 22)			
SL. No.	**Name of Subjects with Code**	**Name of the Teacher**	**Duty Hours per week**
1.	**MAT2C06: ADVANCED ABSTRACT ALGEBRA**	**Prija V**	**6**
2.	**MAT2C07: MEASURE AND INTEGRATION**	**Athulya P**	**6**
3.	**MAT 2C08: ADVANCED TOPOLOGY**	**Sneha P Sebastian**	**6**
4.	**MAT 2C09: FOUNDATIONS OF COMPLEX ANALYSIS**	**Ajeena Joseph**	**6**
5.	**MAT2C10: PARTIAL DIFFERENTIALEQUATIONS AND INTEGRAL EQUATIONS**	**Anil MV**	**6**
	Name of Class In charge	**Prija V**	

TIME TABLE

Day	09.50 Am - 10.45 Am	10.45 Am -11.40 Am	11.55 Am -12.50 Pm	01.40 Pm - 02.35 Pm	02.35 Pm - 03.30 Pm
1	FOUNDATIONS OF COMPLEX ANALYSIS	ADVANCED TOPOLOGY	PARTIAL DIFFERENTIALEQUATIONS AND INTEGRAL EQUATIONS	MEASURE AND INTEGRATION	ADVANCED ABSTRACT ALGEBRA
2	ADVANCED TOPOLOGY	ADVANCED ABSTRACT ALGEBRA	FOUNDATIONS OF COMPLEX ANALYSIS	PARTIAL DIFFERENTIALEQUATIONS AND INTEGRAL EQUATIONS	MEASURE AND INTEGRATION
3	MEASURE AND INTEGRATION	ADVANCED TOPOLOGY	ADVANCED ABSTRACT ALGEBRA	FOUNDATIONS OF COMPLEX ANALYSIS	PARTIAL DIFFERENTIALEQUATIONS AND INTEGRAL EQUATIONS
4	ADVANCED ABSTRACT ALGEBRA	PARTIAL DIFFERENTIALEQUATIONS AND INTEGRAL EQUATIONS	MEASURE AND INTEGRATION	ADVANCED TOPOLOGY	FOUNDATIONS OF COMPLEX ANALYSIS

5	PARTIAL DIFFERENTIALEQUATIONS AND INTEGRAL EQUATIONS	MEASURE AND INTEGRATION	FOUNDATIONS OF COMPLEX ANALYSIS	ADVANCED ABSTRACT ALGEBRA	ADVANCED TOPOLOGY
6	ADVANCED ABSTRACT ALGEBRA	MEASURE AND INTEGRATION	PARTIAL DIFFERENTIALEQUATIONS AND INTEGRAL EQUATIONS	ADVANCED TOPOLOGY	FOUNDATIONS OF COMPLEX ANALYSIS

Subject Code:	**MAT2C06**
Subject Name:	**ADVANCED ABSTRACT ALGEBRA**
No. of Credits:	**4**
No. of Contact Hours:	**90**
Hours per Week:	**6**
Name of the Teacher:	**Prija V**

MAT2C06: ADVANCED ABSTRACT ALGEBRA

Text Book: John. B. Fraleigh, A First Course in Abstract Algebra (7th Edition), Narosa(2003)

Unit I

Unique Factorization Domains, Euclidean Domains, Gaussian Integers and Multiplicative
Norms, Introduction to Extension Fields (Chapter-9: Section - 45, 46, 47 and Chapter-6:Section - 29).

Unit II

Algebraic Extensions, Geometric Constructions, Finite Fields, Automorphisms of Fields.
(Chapter-6: Section - 31, 32, 33 and Chapter-10 : Section- 48).

Unit III

The IsomorphismExtension Theorem, Splitting Fields, Separable Extensions. Galois Theory
(Chapter-10: Section – 49, 50, 51, 53).

Reference:

1. I. N. Herstein: Topics in Algebra. Wiley India Pvt. Ltd, 2006
2. D. S. Malik, John. N. Merdson, M. K. Sen: Fundamentals of Abstract Algebra Mc Graw-hill Publishing Co., 1996
3. Clark, Allen: Elements of Abstract Algebra. Dover Publications, 1984
4. David M. Burton: A First course in Rings and Ideals. Addison-Wesley Educational Publishers Inc., 1970
5. Joseph. A. Gallian: ContemporaryAbstract Algebra. Narosa, 1999
M. Artin: Algebra Addison Wesley; 2nd edition, 2010

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	08-04-2021 To 10-04-2021	1	Unit I-Introduction.
		2	Unique Factorization Domains,Definitions.
		3	Examples for UFD.
2	12-04-2021 To 17-04-2021	4	Euclidean Domains
		April 14	**Vishu**
		5	Theorems.
		6	Corollory.
		7	Exercise questions.
		8	Theorems.
3	19-04-2021 To 24-04-2021	9	Class Test.
		10	Assignment question.
		11	Gaussian Integers and Multiplicative Norms, Definitions, Examples.
		12	Definitions, Examples.
		13	Theorems.
		14	Lemma.
4	26-04-2021 To 01-05-2021	15	Theorems.
		16	Corollory.
		17	Theorems.
		18	Theorems.
		19	Corollory.
		20	Introduction to Extension Fields, Definitions, Examples.
5	03-05-2021 To 08-05-2021	21	Exercise questions.
		22	Exercise questions.
		23	Theorems.
		24	Theorems.
		25	Corollory.
		26	Class Test.
6	10-05-2021 To 15-05-2021	27	Unit II- Introduction.
		28	Algebraic Extensions., Definitions, Examples.
		29	Definitions, Examples.
		30	Theorems.
		May 13	Edul- Fither
		31	Theorems.
7	17-05-2021	32	Corollory.

No of Weeks	Dates	Session	Topic
	To 22-05-2021	33	Theorems.
		34	Theorems.
		35	Lemma.
		36	Class Test.
		37	Corollory.
8	24-05-2021 To 29-05-2021	38	Theorems.
		39	Assignment.
		40	Finite Fields. Definitions, Examples.
		41	Seminar.
		42	Seminar.
		43	Seminar.
9	31-05-2021 To 05-06-2021	44	Seminar.
		45	Seminar.
		46	Exercise questions.
		47	Exercise questions.
		48	Theorems.
		49	Theorems.
10	07-06-2021 To 12-06-2021	50	Lemma.
		51	Lemma.
		52	Corollory.
		53	Automorphisms of Fields. Definitions, Examples.
		54	Definitions, Examples.
		55	Theorems.
11	14-06-2021 To 19-06-2021	56	Lemma.
		57	Theorems.
		58	Corollory.
		59	Seminar.
		60	Seminar.
		61	Class test.
12	21-06-2021 To 26-06-2021	62	Unit III-Introduction.
		63	The IsomorphismExtension Theorem.
		65	Theorems.
		65	Lemma.
		66	Theorems.
		67	Corollory.
13	28-06-2021	68	Seminar.
		69	Splitting fields. Definitions, Examples.

No of Weeks	Dates	Session	Topic
	To 03-07-2021	70	Class test.
		71	Separable Extensions. Definitions, Examples.
		72	Theorems.
		73	Lemma.
14	05-07-2021 To 10-07-2021	74	Theorems.
		75	Corollory.
		76	Seminar.
		77	Exercise questions.
		78	Exercise questions.
		79	Exercise questions.
15	12-07-2021 To 17-07-2021	80	Galois Theory.
		81	Definitions, Examples.
		82	Theorems.
		83	Lemma.
		84	Theorems.
		85	Corollory.
16	19-07-2021 To 24-07-2021	86	Class test.
		20 July	Bakrid - Holiday
		87	Revision.
		88	Revision.
		89	Revision.
		90	Revision.
			II Semester PG Internal Examination
17	26-07-2021 To 30-07-2021		**II Semester PG Internal Examination**
			II Semester PG Internal Examination
			II Semester PG Internal Examination
			II Semester PG Internal Examination
18	02-08-2021		**Study Leave**

Subject Code:	**MAT 2C08**
Subject Name:	**ADVANCED TOPOOGY**
No. of Credits:	**4**
No. of Contact Hours:	**90**
Hours per Week:	**6**
Name of the Teacher:	**SNEHA P SEBASTIAN**

MAT 2C08 ADVANCED TOPOLOGY

Text:
C. Wayne Patty, Foundations of Topology, Second Edition – Jones & Bartlett India Pvt. Ltd., New Delhi, 2012.

Unit –1
Compactness: Compactness in metric spaces, Compact spaces. Local compactness and the relation between various forms of compactness.
[Chapter 4: Sections 4.1 to 4.3 excluding Corollary 4.22]

Unit – Il
The Separation and Countability Axioms: T0, T1 & T2 spaces, Regular and completely regular spaces, Normal and completely normal spaces, The countability axioms.
[Chapter 5: Sections 5.1 to 5.4 excluding Examples 3, 5 and 6 and Theorem 5.10. Also exclude the proof that the Moore Plane is Completely Regular.]

Unit – III
Urysohn's Lemma and Tietze Extension Theorem, Special Topics: Urysohn's Lemma and Tietze Extension Theorem, The Alexander Subbase and Tychonoff Theorems, Urysohn's Metrization Theorem, Homotopy of Paths.
[Chapter 5: Section 5.5, Chapter 6: Section 6.7 excluding Example 20; Chapter 7: Section 7.1; Chapter 8: Section 8.1]

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	08-04-2021 To 10-04-2021	1	**Unit I : Compactness**
		2	Definition and Example
		3	Theorem
2	12-04-2021 To 17-04-2021	4	Bolzano Weierstrass property
		April 14	**Vishu**
		5	Theorem
		6	Lebesgue number
		7	Countably Compact space
		8	Theorem
3	19-04-2021 To 24-04-2021	9	Sequentially compact space
		10	Theorem
		11	Theorem
		12	Uniformly continuous functions
		13	Theorem
		14	Compact spaces
4	26-04-2021 To 01-05-2021	15	Theorem
		16	Example
		17	Theorem
		18	Theorem
		19	Tube Lemma
		20	Hein Borel Theorem
5	03-05-2021 To 08-05-2021	21	Example
		22	Locally compact space
		23	Theorem
		24	Theorem
		25	Example
		26	Theorem
6	10-05-2021 To 15-05-2021	27	Example
		28	CLASS TEST UNIT I
		29	**Unit II : The separation and countability axioms**
		30	T0 - spaces
		May 13	Edul- Fither
		31	T1 - spaces
7	17-05-2021	32	T2 - spaces

No of Weeks	Dates	Session	Topic
	To 22-05-2021	33	Theorem
		34	Example
		35	Retract
		36	Theorem
		37	Theorem
8	24-05-2021 To 29-05-2021	38	Regular spaces
		39	Example
		40	Theorem
		41	Theorem
		42	Completely regular space
		43	Theorem
9	31-05-2021 To 05-06-2021	44	Example
		45	Normal spaces
		46	Example
		47	Theorem
		48	Theorem
		49	Example
10	07-06-2021 To 12-06-2021	50	Characterization Theorem
		51	Example
		52	Theorem
		53	Theorem
		54	Example
		55	Theorem
11	14-06-2021 To 19-06-2021	56	CLASS TEST UNIT II
		57	**Unit III : Urysohn's Lemma and Tietze Extension Theorem, Special topics**
		58	Dyadic number
		59	Theorem
		60	Urysohn's Lemma
		61	Theorem
12	21-06-2021 To 26-06-2021	62	Theorem
		63	Tietze Extension Theorem
		65	Inadequate
		65	Finitely inadequate
		66	Alexander Subbase Theorem
		67	Alexander Subbase Theorem
13	28-06-2021 To	68	Alexander Subbase Theorem
		69	Tychonoff Theorem

No of Weeks	Dates	Session	Topic
	03-07-2021	70	Theorem
		71	Hilbert Cube
		72	Urysohn's Metrization Theorem
		73	Theorem
14	05-07-2021 To 10-07-2021	74	Homotopy
		75	Example
		76	Theorem
		77	Path homotopy
		78	Example
		79	Theorem
15	12-07-2021 To 17-07-2021	80	Loop and Theorem
		81	Fundamental group
		82	Contractible space
		83	Theorem
		84	CLASS TEST UNIT III
		85	Revision unit I
16	19-07-2021 To 24-07-2021	86	Revision unit II
		20 July	Bakrid - Holiday
		87	Revision unit III
		88	Previous question paper discussion
		89	Previous question paper discussion
		90	Previous question paper discussion
			II Semester PG Internal Examination
17	26-07-2021 To 30-07-2021		**II Semester PG Internal Examination**
			II Semester PG Internal Examination
			II Semester PG Internal Examination
			II Semester PG Internal Examination
18	02-08-2021		**Study Leave**

Subject Code:	**MAT 2C09**
Subject Name:	**Foundation of Complex Analysis**
No. of Credits:	**4**
No. of Contact Hours:	**90**
Hours per Week:	**6**
Name of the Teacher:	**Ajeena Joseph**

MAT 2C09: FOUNDATIONS OF COMPLEX ANALYSIS

Text:
John B Conway – Functions of one complex variable, 2nd edition, Springer International student edition.

Unit –1
Analytical functions, Complex Integration
Power series representation of analytic functions, Zeros of an analytic functions, the index of a closed curve, Cauchy's theorem and integral formula, the homotopic version of Cauchy's theorem and simple connectivity, Counting zeros and open mapping theorem, Goursat's theorem.
[Chapter 4, sections 2 to 8 .(2.1 to 3.6 proof omitted)]

Unit – II
Singularities
Classification of singularities, the Residue, the Argument principle
The maximum- modulus theorem
The maximum principle, Schwartz lemma.
[Chapter 5: sections 1,2,3; chapter 6: sections 1,2]

Unit – III
Compactness and convergence in the sauce of analytic functions. The space of continuous functions, spaces of analytic functions, the Reimann mapping theorem, the Weierstrass factorization theorem.
[Chapter 7: sections1,2,4,5].

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	08-04-2021 To 10-04-2021	1	**Differentiable functions**
		2	Proposition
		3	Chain rule
2	12-04-2021 To 17-04-2021	4	Proposition and Corollary
		April 14	**Vishu**
		5	Proposition
		6	Logarithmic function
		7	Proposition
		8	Proposition
3	19-04-2021 To 24-04-2021	9	Proposition
		10	Lemma
		11	Class test
		12	Cauchy's Estimate
		13	Zeros of an analytic function
		14	Proposition
4	26-04-2021 To 01-05-2021	15	Proposition
		16	Example
		17	Theorem
		18	Cauchy's integral formula – 1^{st}verion
		19	Cauchy's integral formula- 2^{nd} version
		20	Cauchy's theorem – 1^{st} version
5	03-05-2021 To 08-05-2021	21	Theorem
		22	Theorem
		23	Moreras theorem
		24	Homotopy
		25	Cauchy's integral theorem- 3^{rd} version
		26	Theorem
6	10-05-2021 To 15-05-2021	27	Cauchy's integral theorem- 4^{th} version
		28	Class test
		29	Goursat theorem
		30	Theorem
		May 13	Edul- Fither
		31	Theorem
7	17-05-2021	32	Singularity

	To 22-05-2021	33	Classification of singularities
		34	Example
		35	Theorem
		36	Proposition
		37	Theorem
8	24-05-2021 To 29-05-2021	38	Laure series development
		39	Example
		40	Corollary
		41	Theorem
		42	Class test
		43	Problems
9	31-05-2021 To 05-06-2021	44	Theorem
		45	Residue
		46	Evaluation of definite integral
		47	Problems
		48	Problems
		49	Theorem
10	07-06-2021 To 12-06-2021	50	Proposition
		51	Theorem
		52	Theorem
		53	Meromorphic functions
		54	Rouche's theorem
		55	Theorem
11	14-06-2021 To 19-06-2021	56	Maximum modulus theorem
		57	Maximum modulus theorem
		58	Theorem
		59	Theorem
		60	Theorem
		61	Class test
12	21-06-2021 To 26-06-2021	62	Compact metric space
		63	Proposition
		65	Lemma
		65	Lemma
		66	Assignment
		67	Problems
13	28-06-2021 To 03-07-2021	68	Complete metric space
		69	Normal space
		70	Proposition
		71	Proposition
		72	Proposition

		73	Arzela-ascoli theorem
14	05-07-2021 To 10-07-2021	74	Theorem
		75	Class test
		76	Class test
		77	Infinite product
		78	Example
		79	Problems
15	12-07-2021 To 17-07-2021	80	Proposition
		81	Fundamental group
		82	Proposition
		83	Examples
		84	Hurwitz theorem
		85	Monte's theorem
16	19-07-2021 To 24-07-2021	86	Reimann theorem
		20 July	Bakrid - Holiday
		87	Weierstrass factorization theorem
		88	Theorem
		89	Theorem
		90	Theorem
			II Semester PG Internal Examination
17	26-07-2021 To 30-07-2021		**II Semester PG Internal Examination**
			II Semester PG Internal Examination
			II Semester PG Internal Examination
			II Semester PG Internal Examination
18	02-08-2021		**Study Leave**

Subject Code:	**MAT2C10**
Subject Name:	**Partial Differential Equations and Integral Equations**
No. of Credits:	**4**
No. of Contact Hours:	**90**
Hours per Week:	**6**
Name of the Teacher:	**Anil M V**

Syllabus:

MAT2C10: PARTIAL DIFFERENTIALEQUATIONS AND INTEGRAL EQUATIONS

Text Book:
1.Amarnath M: Partial Differential Equations, Narosa, New Delhi(1997)
2.Hildebran F. B.: Methods of Applied Mathematics (2ndEdition), Prentice- Hall of India, New Delhi(1972).

UNIT I First order P.D.E.

Curves and Surfaces, Genesis of first order Partial Differential Equations, Classification of integrals, Linear equations of first order, Pfaffian differential equations, Compatible systems, Charpit's method, Jacobi's method, Integral surfaces passing through a given curve, Quasi linear equations.
[Sections 1.1 – 1.10. from the Text 1]

UNIT II Second Order P.D.E.

Genesis of second order Partial Differential Equations.
Classification of second order Partial Differential Equations.
One dimensional Wave Equation: Vibrations of an infinite String , Vibrations of semi-infinite String, Vibrations of a String of Finite Length, Riemann's Method, Vibrations of a String of Finite Length (Method of Separation of Variables).
Laplace's Equation: Boundary Value Problems, Maximum and Minimum Principles, The Cauchy Problem, The Dirichlet Problem for the Upper Half Plane, The Neumann Problem for the Upper Half Plane.
Heat Conduction Problem: Heat Conduction - Infinite Rod Case, Heat Conduction – Finite Rod Case.
Duhamel's Principle: Wave Equation, Heat Conduction Equation.
[Sections 2.1 – 2.6. from the Text 1. Omit sections 2.4.6 to 2.4.13]

UNIT III Integral Equations.

Introduction ,Relation Between differential and Integral Equation, The Green's Function, Frdholm Equation With Separable Kernels, Illustrative Examples, Hilbert Schmidt Theory, Iterative Methods for Solving Equations of the Second Kind.
[Sections 3.1 – 3.3, 3.6 – 3.9 from the Text 2]

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	08-04-2021 To 10-04-2021	1	Genesis of 1st order p.d.e.
		2	Problems
		3	Classification of integrals
2	12-04-2021 To 17-04-2021	4	Problems
		April 14	**Vishu**
		5	Theorem
		6	Examples-finding complete integrals
		7	Theorem
		8	Solving Quasi-linear equations
3	19-04-2021 To 24-04-2021	9	Examples
		10	Examples
		11	Exercise questions
		12	Pfaffian differential equations
		13	Theorem
		14	Theorem
4	26-04-2021 To 01-05-2021	15	Examples of Pfaffian D.E.
		16	Examples of Pfaffian D.E
		17	Compatible Systems
		18	Examples
		19	Charpit's method to solve non-linear p.d.e.
		20	Standard forms of p.d.e.
5	03-05-2021 To 08-05-2021	21	Problems using Charpit's method
		22	Problems using Charpit's method
		23	Assignment
		24	Jacobi's method
		25	Examples
		26	Special case of Jacobi's method
6	10-05-2021 To 15-05-2021	27	Problems
		28	Integral surface through a given curve
		29	Cauchy problem for non-linear p.d.e.
		30	Examples
		May 13	Edul- Fither
		31	Examples
7	17-05-2021	32	Method of characteristic curves-semi linear equations
		33	Method of characteristic curves-quasi linear equations

	To 22-05-2021	34	Problems
		35	Problems
		36	Examples
		37	Class test
8	24-05-2021 To 29-05-2021	38	Assignment
		39	Second order p.d.e.
		40	Classification of 2^{nd} order p.d.e.
		41	Reduction into canonical form
		42	Assignment
		43	Problems
9	31-05-2021 To 05-06-2021	44	Problems
		45	Vibrations of an infinite string
		46	Vibrations of a semi-infinite string
		47	Vibrations of a finite string by separation of variables
		48	Examples
		49	Theorem-Uniqueness of solutions
10	07-06-2021 To 12-06-2021	50	Laplace equations
		51	Boundary value problems
		52	Maximum principle
		53	Minimum principle
		54	Uniqueness theorem
		55	Green's identities
11	14-06-2021 To 19-06-2021	56	The Neumann problem
		57	Dirichlet problem for the upper half-plane
		58	Neumann problem for the upper half-plane
		59	Heat conduction on an infinite rod
		60	Heat conduction on a finite rod
		61	Theorem-uniqueness of solutions
12	21-06-2021 To 26-06-2021	62	Examples
		63	Examples
		65	Riemann's method
		65	The Cauchy Problem
		66	Duhamel's Principle for Wave Equation
		67	Duhamel's Principle for Heat Conduction Equation.
13	28-06-2021 To 03-07-2021	68	Problems
		69	Problems
		70	Class test
		71	Integral equations
		72	Some standard formulas

		73	Relation between integral and differential equations
14	05-07-2021 To 10-07-2021	74	Problems
		75	Problems
		76	Boundary value problems into integral equations
		77	Green's function
		78	Theorem
		79	Theorem(contd.)
15	12-07-2021 To 17-07-2021	80	Examples
		81	Examples
		82	Fredhom integral equations with separable kernel
		83	Illustrative examples-Eigen value problem
		84	Hilbert Schmidt Theorem
		85	Corollary of Hilbert Schmidt Theorem
16	19-07-2021 To 24-07-2021	86	Example
		20 July	Bakrid - Holiday
		87	Iterative method for Solving Equations of the Second Kind
		88	Problems
		89	Revision
		90	Revision
			II Semester PG Internal Examination
17	26-07-2021 To 30-07-2021		**II Semester PG Internal Examination**
			II Semester PG Internal Examination
			II Semester PG Internal Examination
			II Semester PG Internal Examination
18	02-08-2021		**Study Leave**

Subject Code:	**MAT2C07**
Subject Name:	**Measure and Integration**
No. of Credits:	**4**
No. of Contact Hours:	**90**
Hours per Week:	**6**
Name of the Teacher:	**Athulya P**

Syllabus:

MAT2C07: MEASURE AND INTEGRATION

Text Book; G de Barra, Measure Theory and Integration. New age International Publishers,
New Delhi (First Edition, 1981)

Unit I

Measure on the real line; Lebesgue Outer measure, Measurable sets, Ragularity, Measurable
Functions, Borel and Lebesgue Measurability (Including Theorem 17),
Integration of functions of a Real Variable; Integration of Non-negative Functions.
(Chapter-2; Section 2.1-2.5, Chapter-3-Section 3.1)

Unit II

Integration of functions of a Real Variable; The general Integral, Riemann and Lebesgue
Integrals
Abstract Measure Space; Measures and Outer measures, extension of measure, Uniqueness
of the extension.
(Chapter-3, Section 3.2 and 3.4; Chapter-5; Section 5.1 –5.3)

Unit III

Abstract Measure Spaces; Measure Spaces, Integration with respect to a Measure
Inequalities and the LP Spaces; The LP Spaces, The inequalities of Holder and Minkowski,
Completeness of LP (μ)
(Chapter-5, Section 5.5 –5.6; Chapter-6-section 6.1, 6.4 and 6.5)

TEACHING SCHEDULE

No of Weeks	Dates	Session	Topic
1	08-04-2021 To 10-04-2021	1	Measure on the real line- Introduction
		2	Lebesgue Outer measure,
		3	Theorem
2	12-04-2021 To 17-04-2021	4	Theorem
		April 14	**Vishu**
		5	Example
		6	Measurable Sets
		7	Theorem
		8	Example
3	19-04-2021 To 24-04-2021	9	Theorem
		10	Theorem
		11	Theorem
		12	BorelSets
		13	Example
		14	Theorem
4	26-04-2021 To 01-05-2021	15	Example
		16	Example
		17	Regularity
		18	Theorem
		19	Theorem
		20	Theorem
5	03-05-2021 To 08-05-2021	21	Measurable Functions
		22	Example
		23	Characteristic function
		24	Class Test
		25	Theorem
		26	Theorem
6	10-05-2021 To 15-05-2021	27	Borel Functions
		28	Example
		29	Essential Supremum
		30	Example
		May 13	Edul- Fither
		31	Essential Infimum
7	17-05-2021	32	Integration of non negative functions

No of Weeks	Dates	Session	Topic
	To 22-05-2021	33	Theorem
		34	Example
		35	Theorem
		36	FatousLemma
		37	Fatous Lemma
8	24-05-2021 To 29-05-2021	38	Example
		39	Lebesgue monotone convergence theorem
		40	Theorem
		41	Theorem
		42	Theorem
		43	Example
9	31-05-2021 To 05-06-2021	44	Example
		45	Integration of functions of a Real Variable; The general Integral
		46	Theorem
		47	Examples
		48	Lebesgue dominated convergence theorem
		49	Theorem
10	07-06-2021 To 12-06-2021	50	Example
		51	Theorem
		52	Riemann integral and Lebesgue integral
		53	Theorem
		54	Theorem
		55	Abstract Measure Space
11	14-06-2021 To 19-06-2021	56	Measures and Outer measures
		57	Theorem
		58	Examples
		59	Example
		60	Theorem
		61	Theorem
12	21-06-2021 To 26-06-2021	62	Theorem
		63	Theorem
		65	Extension of measure
		65	Theorem
		66	Theorem
		67	Theorem
13	28-06-2021	68	Uniqueness of the extension.

No of Weeks	Dates	Session	Topic
	To 03-07-2021	69	Theorem
		70	Theorem
		71	Abstract Measure Spaces; Measure Spaces
		72	Abstract Measure Spaces; Measure Spaces
		73	Abstract Measure Spaces; Measure Spaces
14	05-07-2021 To 10-07-2021	74	Integration with respect to a Measure
		75	Integration with respect to a Measure
		76	The LP Spaces
		77	The LP Spaces
		78	The LP Spaces
		79	Holder Inequalities
15	12-07-2021 To 17-07-2021	80	Holder Inequalities
		81	Holder Inequalities
		82	Minkowskis Inequalities
		83	Minkowskis Inequalities
		84	Minkowskis Inequalities
		85	Completeness of LP (μ)
16	19-07-2021 To 24-07-2021	86	Completeness of LP (μ)
		20 July	Bakrid - Holiday
		87	Completeness of LP (μ) Revision
		88	Revision
		89	Revision
		90	Revision
			II Semester PG Internal Examination
17	26-07-2021 To 30-07-2021		**II Semester PG Internal Examination**
			II Semester PG Internal Examination
			II Semester PG Internal Examination
			II Semester PG Internal Examination
18	02-08-2021		**Study Leave**