Date: 17-08-2022

NOTIFICATION

Sub: Syllabus of **B.Sc. PHYSICS** under NEP Regulations, 2021.
(As per Mangalore University guidelines)

Ref: 1. Decision of the Academic Council meeting held on 18-12-2021 vide
Agenda No: 6.23 (2021-22)
2. Decision of the Academic Council meeting held on 09-07-2022 vide
Agenda No: 14
3. Office Notification dated 21-02-2022
4. Office Notification dated 17-08-2022

Pursuant to the above, the Syllabus of **B.Sc. PHYSICS** under NEP Regulations, 2021 which

was approved by the Academic Council at its meeting held on 18-12-2021, 09-07-2022 & 25-02-2023

is hereby notified for implementation with effect from the academic year **2021-22**.

PRINCIPAL

REGISTRAR

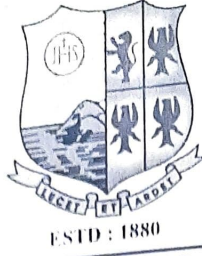To:

1. The Chairman/Dean/HOD

2. The Registrar Office

3. Library

Course Structure – B.Sc. Physics

3 Years B.Sc. Course with Physics as one of the major subject and open Electives according to National education policy(2020)

semester	Discipline core (DC) Subject	Subject code	Theory hours/ week	Practical hours/ week	Duration of exams (Hours)	Marks and Credits			
						Exam	IA	Total	Credits
I	Mechanics and Properties of Matter	G501 DC1.1	4		2.5	60	40	100	4
I	Practical-Lab	G501 DC2.1P		4	4	25	25	50	2
I	Electrical Circuits and Wiring	G501 OE1.1	3		2.5	60	40	100	3
II	Electricity and Magnetism	G501 DC1.2	4		2.5	60	40	100	4
II	Practical-Lab	G501 DC2.2P		4	4	25	25	50	2
II	Renewable Energy and Energy Harvesting	G501 OE1.2	3		2.5	60	40	100	3
III	Waves and Optics	G501 DC1.3	4		2.5	60	40	100	4
III	Practical-Lab	G501 DC2.3P		4	4	25	25	50	2
III	Fundamentals of Optics and Electricity	G501 OE1.3	3		2.5	60	40	100	3
IV	Thermal Physics and Electronics	G501 DC1.4	4		2.5	60	40	100	4
IV	Practical-Lab	G501 DC2.4P		4	4	25	25	50	2
IV	Financial Education and Investment Awareness		3		2.5	30	20	50	

ಸಂತಅಲೋಶಿಯಸ್ ಕಾಲೇಜು (ಸ್ವಾಯತ್ತ)

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Centre for Research Capacity Building under UGC-STRIDE

Date: 17-08-2022

NOTIFICATION

Sub: Syllabus of **B.Sc. MATHEMATICS** under NEP Regulations, 2021.
(As per Mangalore University guidelines)

Ref: 1. Decision of the Academic Council meeting held on 18-12-2021 vide
Agenda No: 6.21(2021-22)
2. Decision of the Academic Council meeting held on 09-07-2022 vide
Agenda No:14
3. Office Notification dated 21-02-2022.
4. Office Notification dated 17-08-2022

Pursuant to the above, the Syllabus of **B.Sc. MATHEMATICS** under NEP Regulations, 2021 which was approved by the Academic Council at its meeting held on 18-12-2021& 09-07-2022 is hereby notified for implementation with effect from the academic year 2021-22.

PRINCIPAL

REGISTRAR

To:

1. The Chairman/Dean/HOD.

2. The Registrar Office

3. Library

Board of Studies meeting held on 20th November 2021 chaired by Ms Priya Monteiro, Head of the Department.

Members present:

1. Dr Adelaide Saldanha, HOD, Department of Mathematics, St Agnes College (Autonomous), Mangaluru.
2. Mr Udaya K, HOD of Mathematics, St Philomena College, Puttur.
3. Dr John Edward Dsilva
4. Ms Melvita Leema Baretto
5. Ms Rollin Preetha Vaz
6. Ms Shaila Priya Rodrigues

Programme Outcomes (PO):

By the end of the program it is expected that the students will be benefited by the following:

PO 1	**Disciplinary Knowledge**: Bachelor degree in Mathematics is the culmination of in-depth knowledge of Algebra, Calculus, Geometry, differential equations and several other branches of pure and applied mathematics. This also leads to study the related areas such as computer science and other allied subjects
PO 2	**Communication Skills**: Ability to communicate various mathematical concepts effectively using examples and their geometrical visualization. The skills and knowledge gained in this program will lead to the proficiency in analytical reasoning which can be used for modeling and solving of real life problems.
PO 3	**Critical thinking and analytical reasoning:** The students undergoing the programme acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real life problems.
PO 4	**Problem Solving**: The Mathematical knowledge gained by the students through the programme develop an ability to analyze the problems, identify and define appropriate computing requirements for its solutions. This

Assessment

Weightage for the Assessments (in percentage)

Type of Course	Formative Assessment/ I.A.	Summative Assessment (S.A.)
Theory	40%	60 %
Practical	50%	50 %
Projects	40%	60 %
Experiential Learning (Internship etc.)	--	--

Structure under NEP

Course Code	Title of course	Category of course	Teaching hours per week	SEE	CIE	Total Marks	Credits
SEMESTER I							
G 503 DC1.1	Number Theory - I, Algebra - I and Calculus - I	DSC	4	60	40	100	4
G 503 DC2.1P	Theory based practicals on Number Theory – I, Algebra - I and Calculus - I	DSC	4	25	25	50	2
G 503 OE1.1	Mathematics - I	OEC	3	60	40	100	3
Total credit							9
SEMESTER II							
G 503 DC1.2	Number Theory - II, Algebra - II and Calculus - II	DSC	4	60	40	100	4
G 503 DC2.2P	Theory based practicals on Number Theory – II, Algebra - II and Calculus - II	DSC	4	25	25	50	2
G 503 OE1.2	Mathematics - II	OEC	3	60	40	100	3
Total credit							9