SANDIP UNIVERSITY

School of Science
Department of Physics
NEP 2020- Course Structure

Programme Name: Master of Science (Physics)

Semester – I (Level 6.0) **For the Batch : AY 25-26 onwards**

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	NRDP101	Research Methodology	4	0	0	4	50	-	100	-	100
2	PC	NPPH101	Classical Mechanics	4	0	0	4	50	-	100	-	100
3	PC	NPPH102	Mathematical Physics	4	0	0	4	50	-	100	-	100
4	PE	NPPHE…	Programme Elective I	4	0	0	4	50	-	100	-	100
5	PC	NPPH111	General Physics and Mechanics Laboratory	0	0	4	2	-	50	-	50	100
6	PC	NPPH112	Computational Physics and Numerical Methods Laboratory	0	0	4	2	-	50	-	50	100
TOTAL				**16**	**0**	**8**	**20**	**200**	**100**	**400**	**110**	**600**

Programme Elective I

Course Code	Course Name
NPPHE01	Introduction to Astrophysics
NPLSE02	Introduction to Nanoscience and Nanotechnology

CIA: Continuous Internal Assessment
L: Theory Lecture
T: Tutorial
P: Practical
ESE: End Semester Exam

#: Internship for 15 days.
*: Oral Examination
UC: University Core
PC: Programme Core
PE: Programme Elective
OE: Open Elective
VAC: Value Added Courses

Formative Assessment		
CIA	**Weightage**	**Description**
CIA 1	10%	Home Assignment
CIA 2	20%	Written Exam
CIA 3	10%	Seminar Presentation
CIA 4	10%	Activity/Project & Research Based Activity
TOTAL	**50%**	

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Programme Name: Master of Science (Physics)

Semester – II (Level 6.0) **For the Batch : AY 25-26 onwards**

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	NPPH201	Quantum Mechanics	4	0	0	4	50	-	100	-	100
2	PC	NPPH202	Nuclear Physics	4	0	0	4	50	-	100	-	100
3	PC	NPPH203	Introduction to Programming	4	0	0	4	50	-	100	-	100
4	PE	NPPHE…	Programme Elective II	4	0	0	4	50	-	100	-	100
5	PC	NPPH211	Quantum Physics Laboratory	0	0	4	2	-	50	-	50	100
6	PC	NPPH212	Nuclear Physics Laboratory	0	0	4	2	-	50	-	50	100
7	PC	NPPH213	Computational Physics Laboratory (Programming in Python)	0	0	2	1		50		20	100
TOTAL				**20**	**0**	**10**	**21**	**200**	**150**	**400**	**150**	**700**

Programme Elective II

Course Code	Course Name
NPPHE03	Fundamentals of Stellar and Galactic Astrophysics
NPLSE04	Nanoscale Device Physics and Applications

		Formative Assessment		
CIA: Continuous Internal Assessment	#: Internship for 15 days.	**CIA**	**Weightage**	**Description**
L: Theory Lecture	*: Oral Examination	CIA 1	10%	Home Assignment
T: Tutorial	**UC**: University Core	CIA 2	20%	Written Exam
P: Practical	**PC**: Programme Core	CIA 3	10%	Seminar Presentation
ESE: End Semester Exam	**PE**: Programme Elective	CIA 4	10%	Activity/Project & Research Based Activity
	OE: Open Elective	**TOTAL**	**50%**	
	VAC: Value Added Courses			

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School of Science
Department of Physics
NEP 2020- Course Structure

Programme Name: Master of Science (Physics)

Semester – III (Level 6.5) **For the Batch : AY 25-26 onwards**

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	NPPH301	Electrodynamics	4	0	0	4	50	-	100	-	100
2	PC	NPPH302	Electronics	4	0	0	4	50	-	100	-	100
3	PC	NPPH303	Solid State Physics	4	0	0	4	50	-	100	-	100
4	PE	NPPHE…	Programme Elective III	4	0	0	4	50	-	100	-	100
5	PE	NPPHE…	Programme Elective IV	4	0	0	4	50	-	100	-	100
6	PC	NPPH311	Electromagnetism and Wave Propagation Laboratory	0	0	4	2	-	50	-	50	100
7	PC	NPPH312	Electronics Laboratory	0	0	4	2	-	50	-	50	100
8	PC	NPPH313	Solid State Physics Laboratory	0	0	2	1		50		20	100
TOTAL				**20**	**0**	**10**	**25**	**250**	**150**	**500**	**150**	**800**

Programme Elective III & IV

Course Code	Course Name
NPPHE05	Observational Astronomy and Astrophysics
NPLSE06	Fundamentals of Nanomaterials and Applications

Course Code	Course Name
NPLSE07	Stellar Evolution and Cosmology
NPLSE08	Nanofabrication and Characterization Techniques

		Formative Assessment		
CIA: Continuous Internal Assessment	#: Internship for 15 days.	**CIA**	**Weightage**	**Description**
L: Theory Lecture	*: Oral Examination	CIA 1	10%	Home Assignment
T: Tutorial	**UC**: University Core	CIA 2	20%	Written Exam
P: Practical	**PC**: Programme Core	CIA 3	10%	Seminar Presentation
ESE: End Semester Exam	**PE**: Programme Elective	CIA 4	10%	Activity/Project & Research Based Activity
	OE: Open Elective	**TOTAL**	**50%**	
	VAC: Value Added Courses			

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SANDIP UNIVERSITY

School of Science

Department of Physics

NEP 2020- Course Structure

Programme Name: Master of Science (Physics)

Semester – IV (Level 6.5) **For the Batch : AY 25-26 onwards**

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	NPPH411	Research Project	0	0	40	20	-	50	-	100	100
TOTAL				**0**	**0**	**40**	**20**	**-**	**50**	**-**	**100**	**100**

CIA: Continuous Internal Assessment

L: Theory Lecture

T: Tutorial

P: Practical

ESE: End Semester Exam

#: Internship for 15 days.

*: Oral Examination

UC: University Core

PC: Programme Core

PE: Programme Elective

OE: Open Elective

VAC: Value Added Courses

Formative Assessment

CIA	Weightage	Description
CIA 1	10%	Home Assignment
CIA 2	20%	Written Exam
CIA 3	10%	Seminar Presentation
CIA 4	10%	Activity/Project & Research Based Activity
TOTAL	**50%**	

BOS Chairperson

Dean SoS

Associate Dean Curriculum Development

Registrar SUN