DEPARTMENT OF PHYSICS

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

COURSE PLAN – PART I			
Course Title	PHYSICS – II		
Course Code	PHIR13	No. of Credits	4
Course Code of Pre-requisite subject(s)	NIL		
Session	~~July~~/ Jan. 2018	Section (if, applicable)	A /~~B~~ (ECE)
Name of Faculty	Dr. R. SANKARANARAYANAN	Department	PHYSICS
Email	sankar@nitt.edu	Telephone No.	0431-2503609
Name of Course Coordinator(s) (if, applicable)	Dr. N.V. Giridharan and Dr. S. Manivannan		
E-mail	giri@nitt.edu	Telephone No.	0431-2503613
Course Type	☑ Core course ☐ Elective course		

Syllabus (approved in BoS)

YES

COURSE OBJECTIVES

To introduce the basic concepts of modern physics like quantum mechanics, nuclear physics and advanced materials. To introduce fundamental topics like electrodynamics and semiconductor physics for circuit branch students.

COURSE OUTCOMES (CO)

Course Outcomes	Aligned Programme Outcomes (PO)
1. To appreciate atomic perspective in probabilistic sense.	PO1
2. To learn the role of fundamental particles that make up matter	PO1
3. To learn the new properties of matter at nanoscale	PO2
4. To learn the fundamental of electromagnetic field	PO3
5. To learn the physics of semiconductors	PO3

COURSE PLAN – PART II

COURSE OVERVIEW

Same as course objectives

COURSE TEACHING AND LEARNING ACTIVITIES

S. No.	Week/Contact Hours	Topic	Mode of Delivery
1	8 Hours	Quantum Mechanics	Chalk and talk
2	8 Hours	Nuclear and Particle Physics	Chalk and talk
3	8 hours	Advanced Materials	Chalk and talk / PPT
4	8 hours	Electrodynamics	Chalk and talk
5	8 Hours	Semiconductor Physics	Chalk and talk

COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S. No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Quiz – I	4th week	30 minutes	10
2	Mid Semester Examination	9th week	90 minutes	30
3	Quiz – II	11th week	30 minutes	10
CPA	Compensation Assessment*	12th week	Maximum 90 minutes	Appropriate
4	Final Assessment *	15th week	3 Hours	50

*mandatory; refer to guidelines on page 4

COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)

Feedback session at the end of course will be conducted for self assessment.

COURSE POLICY (preferred mode of correspondence with students, policy on attendance, compensation assessment, academic honesty and plagiarism etc.)

- 75 % attendance is mandatory.
- Those who are absent for any of the assessment tests on genuine grounds shall be given opportunity only once for compensation assessment with the prior permission of the concerned faculty member and Head of Physics Department. Compensation Assessment shall be conducted before the end semester exam and the portions will be up to Unit IV with appropriate weightage.
- There is no end semester examination for the laboratory. Marks for laboratory sessions shall be awarded on each lab session based on observational skill, understanding etc.
- Total marks = 3/4 of theory marks + 1/4 of lab marks

• Passing minimum is as per the Institute norms. • Relative grades will be awarded for each student based on gap theory. • Those who fail in the course can appear once for reassesment. If they fail again, the student shall redo the course or can opt for formative assesment. • Laboratory marks and internal marks shall be considered until course completion. • Those who indulge in malpractice such as copying, plagiarism will have to redo the course.
ADDITIONAL INFORMATION
FOR APPROVAL
Course Faculty R. Santaranarayanan 10/1/18 CC-Chairperson B. Mahalinda 10/1/18 HOD Dr. Gopalakrishnan 10.1.18