

# CHAITANYA

(DEEMED TO BE UNIVERSITY)

## Learning Outcome based Curriculum Framework (LOCF)

For

PHYSICS

MSc (wef academic year 2020-2021)



**DEPARTMENT OF PHYSICS AND ELECTRONICS  
CHAITANYA (DEEMED TO BE UNIVERSITY)  
KISHANPURA, HANAMKONDA.  
WARANGAL, T. S. -506001.**

**CHAITANYA (DEEMED TO BE UNIVERSITY)**  
**Course Structure for M.Sc. Physics (Specialization Electronics)**  
**Scheme of instructions and examinations, from the academic Year**  
**2020- 2021 onwards.**

**SEMESTER-I**

S. No	Paper Code	Title of the paper	HPW	Credits	Marks		Total marks
					Internal	External	
1		Mathematical Physics	4	4	30	70	100
2		Classical Mechanics	4	4	30	70	100
3		Programing in C and MATLAB	4	4	30	70	100
4		Electronic Devices and Circuits	4	4	30	70	100
5		Heat and Acoustics practical	3	2	15	35	50
6		Optics Lab	3	2	15	35	50
7		Network theorems and voltages regulators Lab	3	2	15	35	50
8		Electronic Devices and Circuits Lab	3	2	15	35	50
9		Seminar	3	2	15	35	50
		<b>TOTAL</b>		26	195	455	650

**SEMESTER –II**

S. No	Paper Code	Title of the paper	HPW	Credits	Marks		Total marks
					Internal	External	
1		Quantum Mechanics-I	4	4	30	70	100
2		Statistical Mechanics	4	4	30	70	100
3		Solid State Physics	4	4	30	70	100
4		Digital Principles and Integrated Circuits	4	4	30	70	100
5		Heat and Acoustics Practical	3	2	15	35	50
6		Optics Lab	3	2	15	35	50
7		Digital Electronics Lab	3	2	15	35	50
8		Operation Amplifier Lab	3	2	15	35	50
9		Seminar	3	2	15	35	50
		TOTAL		26	195	455	650

### SEMESTER III

S. No	Paper Code	Title of the paper	HPW	Credits	Marks		Total Marks
					Internal	External	
1		Quantum Mechanics-II	4	4	30	70	100
2		Nuclear Physics	4	4	30	70	100
3		Digital Signal Processing	4	4	30	70	100
4		Microprocessors & Interfacing	4	4	30	70	100
5		Modern Physics Lab	3	2	15	35	50
6		Optics Lab	3	2	15	35	50
7		Linear Integrated Lab III	3	2	15	35	50
8		Microprocessor Lab IV	3	2	15	35	50
9		Open Elective (SEC) 1. Intellectual Property Rights (IPR) 2. Food Technology 3. Tourism & Hospitality Management 4. Human Rights 5. E-Commerce	2	2	15	35	50
10		Seminar	3	2	15	35	50
11		Oral / Poster presentation in conference		2	15	35	50
		<b>TOTAL</b>		<b>30</b>	<b>225</b>	<b>525</b>	<b>750</b>

## SEMESTER IV

S. No	Paper Code	Title of the paper	HPW	Credits	Marks		Total marks
					Internal	External	
1		Electromagnetic Theory and Nonlinear Optics	4	4	30	70	100
2		Molecular and Resonance Spectroscopy	4	4	30	70	100
3		Microcontroller and Applications	4	4	30	70	100
4		Communication Systems	4	4	30	70	100
5		Modern Physics Lab	3	2	15	35	50
6		Optics Lab	3	2	15	35	50
7		Communications Lab	3	2	15	35	50
8		Microcontroller Lab	3	2	15	35	50
9		Open Elective (SEC) 1. Biosafety and Bio piracy 2. Air Line Management 3. Nano Technology 4. Health care Management 5. Fundamentals of Electronics	2	2	15	35	50
10		Seminar	3	2	15	35	50
11		Community Service & Project		2	15	35	50
		TOTAL		30	225	525	750

### SUMMARY

Semester	No. of credits	Marks
I	26	650
II	26	650
III	30	750
IV	30	750
<b>Total</b>	<b>112</b>	<b>2800</b>

**Marks Distribution:**

**Theory:**

**Internal Marks: 30**

First Internal – 10 marks

Second Internal – 10 marks

Assignment – 10 marks

**External Marks: 70**

Sections – A

10 Short questions.

6 questions to be answered

6 x 5 = 30 marks

Section –B

4 Long questions with internal choice from each chapter 4 x 10 = 40

**Practical:**

Internal Marks: 15

5 marks for attendance

10 marks for internal exam

External Marks: 35

5 marks for record

5 marks for viva-voce (written or oral)

25 marks for experiment