NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI
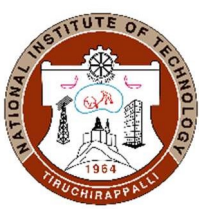
DEPARTMENT COMPUTER SCIENCE AND ENGINEERING

COURSE PLAN – PART I

Name of the program and specialization	**M.Tech. (CSE)**		
Course Title	**Advanced Programming Laboratory**		
Course Code	**CS607**	**No. of Credits**	**3**
Course Code of Pre-requisite subject(s)	**CS607**	**Semester**	**I**
Session	**Aug 2020**	**Section**	
Name of Faculty	**Prof. C. Mala**	**Department**	**CSE**
Official Email	**mala@nitt.edu**	**Telephone No.**	
Name of Course Coordinator(s)	**Nil**		
Official E-mail	**Nil**	**Telephone No.**	**Nil**
Course Type	**Laboratory**		

COURSE OBJECTIVES

- To explore the features of object-oriented programming.
- To focus programming rather on programming language
- To understand the Advance Programming internals

MAPPING OF COs with POs

Course Outcomes	Program Outcomes (PO)
1. Develop shell scripts for various applications.	**1, 2, 4**
2. Gain knowledge about Advance programming internals.	**1, 4**
3. Understand Object-oriented concepts and developing software modules.	**1, 3**

COURSE PLAN – PART II

COURSE OVERVIEW

The goal of this course is to have students understand and appreciate the principles in the design and implementation of Advanced Programming concepts

COURSE TEACHING AND LEARNING ACTIVITIES

S. No.	Week/Contact Hours	`Exercises on	Week duration
1	1st week – 2 hours	Abstraction, exception in C++/Java	3 weeks
2	2nd week – 2 hours	Encapsulation, inheritance in C++/JAVA	
3	3rd week – 2 hours	Multithreading, overloading in C++/JAVA	
4	4th week – 2 hours	Polymorphism, preprocessing in C++/Java	2 weeks
5	5th week – 2 hours	Dynamic-memory, signaling in C++/JAVA	

6	6th week – 2 hours	Introduction to basics of LINUX commands	2 weeks
7	7th week – 2 hours	Command call in LINUX	
8	8th week – 2 hours	Basic of Shell Script programming	3 weeks
9	9th week – 2 hours	Shell Script programming using: **grep, sed**	
10	10th week – 2 hours	Shell Script programming: **awk**	
11	11th week – 2 hours	**Model Exam**	
12	12th week – 2 hours	Introduction of basic of Python	3 weeks
13	13th week – 2 hours	Model programming in Python	
14	14th week – 2 hours	Advance programming in Python	

References

1. Arnold Robbins, Nelson H. F. Beebe, Classic Shell Scripting, O'Reilly Media 2005

2. H. Schildt Java: The Complete Reference, Eighth Edition, McGraw-Hill Education (India) Pvt. Limited, 2011.

3. H. Schildt C++/JAVA: The Complete Reference, Fourth Edition, McGraw-Hill Education (India) Pvt

   Limited, 2003.

4. 4. Mark Lutz Learning Python, 3rd Edition, O'Reilly Media, 2007

COURSE ASSESSMENT METHODS

S. No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Continuous Assessment	Every Lab Session (online demo)	2 hours	50
2	Model Exam – 1	11th week	2 hours	20
3	Compensation assignment	13th week	2 hours	20
4	End Semester Lab Exam	As per Academic schedule	2 hours	30

COURSE EXIT SURVEY

- Feedbacks are collected before the final examination through MIS or any other standard format followed by the institute.

- Students, through their Class Representatives, may give their feedback at any time to the course faculty which will be duly addressed.

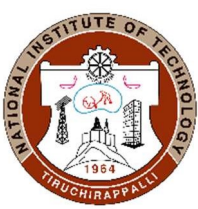- The students may also give their feedback during the Class Committee Meeting.

COURSE POLICY

MODE OF CORRESPONDENCE:

- Email / Phone

COMPENSATION ASSESSMENT:

- One compensation assessment will be given after completion of the Model Exam for the

students who are absent for the assessment due to genuine reason.

- The prior permission and required documentation must be submitted for absence.

ATTENDANCE POLICY (A uniform attendance policy as specified below shall be followed)

➤ At least 75% attendance in each course is mandatory.

➤ A maximum of 10% shall be allowed under the On Duty (OD) category.

➤ Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded a 'V' grade.

ACADEMIC DISHONESTY & PLAGIARISM

➤ Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.

➤ Zero marks to be awarded for the offenders. For copying from another student, both students get the same penalty of zero marks.

➤ The departmental disciplinary committee including the course faculty member, PAC chairperson, and the HoD, as members, shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.

➤ The above policy against academic dishonesty shall apply to all the programs.

ADDITIONAL INFORMATION, IF ANY

1. **The Course Coordinator is available for consultation during the time intimated to the students then and there.**
2. **Relative grading adhering to the instructions from the office of the Dean (Academic) will be adopted for the course.**

FOR APPROVAL

Course Faculty _____   **CC-Chairperson** _____   **HOD** _____