

**PG DEPARTMENT OF COMPUTER SCIENCE
B.SC. IT(HONOURS) PROGRAMME
COURSE STRUCTURE**

SEMESTER 1

Sl. No	Course Code	Course Description
1	ITY1CJ101	Major Course 1 - Fundamentals of IT and Computational thinking
2	MAT1MN105	Minor Course 1 (Matrix Theory)
3	ELE1MN101	Minor Course 2 (Electronic Fundamentals)
4	ENG1FA101 (2)	Ability Enhancement Course 1 (English Language Skills for Sciences)
5	FRE1FA102 (2) HIN1FA102(2) MAL 1FA102(2)	Ability Enhancement Course 2 (Communicative French I) (Communication and Creative Writing in Hindi language -Part I) (Literary Appreciation)
6	ITY1FM105	Multi-Disciplinary Course 1 Other than major (Introduction to Computers and Office Automation)

SEMESTER 2

Sl. No	Course Code	Course Description
1	ITY2CJ101	Major Course 2 - Fundamentals of Programming(C Language)
2	MAT2MN105	Minor Course 3 (Vector Spaces and Linear Transformations)
3	ELE2MN101	Minor Course 4 (Fundamentals of Digital Electronics)
4	ENG2FA103 (2)	Ability Enhancement Course 3 (Advance English Language Skills for Sciences)
5	FRE2FA104 (2) HIN2FA104(2) MAL2FA104(2)	Ability Enhancement Course 4 (Communicative French II) (Communication and Creative Writing in Hindi language -Part II) (Communicative Malayalam and Science Writing)
6	ITY2FM106	Multi-Disciplinary Course 2 Other than major (Digital Empowerment through Ethical Standards)

SEMESTER 3

Sl. No	Course Code	Course Description
1	ITY3CJ201	Major Course 3 - Digital Electronics
2	ITY3CJ202	Major Course 4 - Data Structures and Algorithm
3	MAT3MN205	Minor Course 5 (Optimization Techniques)
4	ELEMN201	Minor Course 6 (Arduino coding with embedded C)
5	XXX3FM107 (2)	Multi-Disciplinary Course 3 – Kerala Knowledge System (English Department)
6	ENG3FV108 (2)	Value-Added Course 1

SEMESTER 4

Sl. No	Course Code	Course Description
1	ITY4CJ203	Major Course 5 - Database Management System
2	ITY4CJ204	Major Course 6 - Python Programming
3	ITY4CJ205	Major Course 7 - Operating Systems
4	ENG4FV109 (2)	Value-Added Course 2
5	XXX4FV110(2)	Value-Added Course 3
6	ENG4FS111 (2)	Skill Enhancement Course – 1 (P)

SEMESTER 5

Sl. No	Course Code	Course Description
1	ITY5CJ301	Major Course 8 - Numerical Analysis and Optimization Techniques
2	ITY5CJ302	Major Course 9 - Object Oriented Programming (Java)
3	ITY5CJ303	Major Course 10 - Full Stack Web Development
4	ITY5EJ305	Elective Course 1 in Major 11
5	ITY5EJ306	Elective Course 2 in Major 12
6	ITY5FS112	Skill Enhancement Course 2 - Digital Marketing

SEMESTER 6

Sl. No	Course Code	Course Description
1	ITY6CJ304	Major Course 13 - Software project management
2	ITY6CJ305	Major Course 14 - Computer Networks
3	ITY6CJ306	Major Course 15 - Introduction to AI and ML
4	ITY6CJ311	Elective Course 3 in Major 16
5	ITY6CJ312	Elective Course 4 in Major 17
6	ITY6FS113	Skill Enhancement Course 3 - Project Implementation
7	ITY6CJ349	Internship in Major (Credit for internship to be awarded only at the end of Semester 6)

SEMESTER 7

Sl. No	Course Code	Course Description
1	ITY7CJ401	Major Course 18 - Data Communication and Fiber optics
2	ITY7CJ402	Major Course 19 - System Security
3	ITY7CJ403	Major Course 20 - Advanced Data Structures and Algorithms
4	ITY7CJ404	Major Course 21 - Block Chain Technology
5	ITY7CJ405	Major Course 22 - Mastering Java Web Development

SEMESTER 8

Sl. No.	Course Code	Course Description
1	ITY8CJ406	Major Course 23 - Compiler Design
2	ITY8CJ407	Major Course 24 - Cloud Computing
3	ITY8CJ408	Major Course 25 - Enterprise Resource Planning
OR (instead of Core Courses ITY8CJ406, ITY8CJ407 and ITY8CJ408 in Major)		
1	ITY8EJXXX*	Elective Course 5
2	ITY8EJXXX*	Elective Course 6
3	ITY8EJXXX*	Elective Course 7
4	ITY8CJ449**	Project (in Honours programme)
5	ITY8CJ499**	Research Project (in Honours with Research programme)
OR (instead of Elective Course 7 in Major, in the case of Honours with Research Programme)		
1	ITY8CJ489	Research Methodology

Prepared by
Mr. Jayakrishnan S
HoD

Verified by
Mr. Jayakrishnan S
Nodal Officer, FYUGP

Approved by
Rev Fr Dr Paulachan K J
Principal