



Deccan Education Society's  
Fergusson College, Pune

## Department Of Computer Science M.Sc. (Computer Science)



### CURRICULUM

The M.Sc. (Computer Science) program will provide a unique opportunity to students to obtain skills that will enable them either to pursue a career in the Computer Science / Information Technology industry. It also develops attitude and interest along with necessary knowledge and proficiency among the students to encourage them to do further academic studies / research.

It's objective is to provide technology-oriented students with the knowledge and

ability to develop creative solutions, and better understand the effects of future developments of computer systems and technology on people and society.

It is a full time course of Two year and Four semesters in which the last semester will be Industrial training/Institutional project. This course is intended for graduates in computer science.

Recognizing this, the syllabus of the course focuses on developing an ability to learn new technology, grasping the concepts and issues behind its use and the use of computers.

The basic aim of this course is to

- Prepare students to think about programming languages analytically.
- Understand the principles and foundations of distributed databases.
- Learn the Algorithm Analysis techniques and use of data structures in improving algorithm performance
- Teach Advanced Operating Systems Concepts using Unix/Linux and Windows
- Enable students to get sound understanding of Advanced Networking Concepts.
- To equip with knowledge and skills necessary to support for their career in Information Security, Net Security and Cryptography

### COURSES

M.Sc Computer Science Program is designed keeping in view the credits prescribed and recognized by the University Of Pune.

Master's degree in Computer Science is of 100 credits. Every student have to complete 100 credits in a minimum of four semesters.

#### PRESCRIBED COURSE (100 credits)

##### Semester – I (25 credits)

(Core)Principles of Programming Languages, (Core)Advanced Networking, (Core)Distributed Database Concepts, (Core) Design and Analysis of Algorithms, (Core) Network Programming

##### Semester – II (Minimum Credit : 25, Maximum Credit : 30.)

(core) Digital Image Processing, (Core)Advanced Operating Systems, (Core)Data Mining and Data Warehousing ,(Core) Project ,(Elective) Programming With DOT NET,(Elective) Artificial Intelligence, (Elective) Advance Design and Analysis of Algorithms

##### Semester –III (Minimum Credit: 25 Maximum Credit : 35)

(Core) Software Metrics &Project Management, (Core) Mobile Computing, (Core)Soft Computing, (Elective)Project,

(Elective) Web Services, (Elective) Database and System Administrator, (Elective) Functional Programming, (Elective) Business Intelligence.

#### **Semester –IV**

(Core) Industrial Training /Institutional project, (Elective) Parallel Computing , (Elective) Embedded System, Software Quality Assurance (Elective) Modeling and Simulation.

#### **ADDITIONAL COMPULSORY COURSE (10 credits)**

Introduction To Cyber Security/ Information Security. (4credits)

Human Rights (2 Credits)

Skill Development (4 Credits)

#### **PLACEMENT**

FC Placements is the assured entry for M.Sc students to the world of Software Industry. As a part of pre-placement activity, our students undergo rigorous procedure to enhance their skills to the fullest before they are presented to the industry. This is an additional activity apart from regular college schedule.

This includes

- Lecture series on latest technology
- project guidance by Industry expert

- Technical and aptitude test
- Group discussion
- Mock Interviews

We also groom our students by arranging Personality development and communication skill programs.

This stands by the quality of *Fergussonians* we deliver to the industry. This activity is a small evidence of it.

#### **Our Recruiters**

Following is the list of few prestigious companies, which have given placement to our M.Sc(CS) students.

- a. Persistent Systems.
- b. Eaton Technologies Pvt. Ltd
- c. Symantec Software Solutions Pvt Ltd
- d. Bristlecone
- e. Quick Heal
- f. Sybase

#### **CONTACT**

Mrs. Shubhangi Thakar  
Coordinator  
Department Of Computer Science  
shubhangi.thakar@fergusson.edu

Mrs. Aparna Vaidyanathan  
Coordinator  
M.Sc.(Computer Science)  
aprna.vaidyanathan@fergusson.edu  
+912030866608

Mrs. Arati Nimgaonkar  
Administrative Support  
M.Sc. (Computer Science)  
arati.nimgaonkar@fergusson.edu  
+912030866604

Mrs. Anjali Naik  
Placement Coordinator  
placements@fergusson.edu  
+912030866613