# B.Tech in Computer Science & Engineering – Cloud Technology and Mobile Application

## I Semester

- Engineering Physics
- Fundamentals of Electrical and Electronics Engineering
- Communicative English
- Problem Solving Techniques
- Calculus and Matrix Algebra
- Applied Chemistry
- Mind Management and Human Values – 1
- PCL 1- Research and Entrepreneurship Project

## II Semester

- Data Structures
- Probability and Vector Space
- Mind Management and Human Values – 2
- Object Oriented Programming
- Digital Logic Design
- Workshop Practices
- Biology for Engineers
- Python Programming
- PCL 1- Research and Entrepreneurship Project

## III Semester

- Economics for Engineers
- Operating Systems
- Computer Organization and Architecture
- Foundations of Mathematics – 1+
- Discrete Mathematics and Graph Theory
- Design and Analysis of Algorithms
- Indian Constitution
- Project Centric Learning

## IV Semester

- Inferential Statistics
- Web Programming and Testing
- Data Communication and Networks
- Software Engineering
- Open Elective I
- Database Management Systems
- Fundamentals of Mathematics – 2+
- Project 2
- Internship -1

## V Semester

- Mobile Computing
- Cloud Computing
- Department Specific Elective I
- Research Methodology
- Fundamentals of iOS Application Development in Swift
- Open Elective II
- Android Development
- Project Centric Learning

## VI Semester

- Storage Management and Data Center
- Advanced iOS Application Development in Swift
- Department Specific Elective II
- Department Specific Elective III
- Open Elective III
- Environmental Studies
- iOS SWIFT UI
- Project 3
- Internship -2

## VII Semester

- UI/UX Design Principles
- Mobile Security
- Department Specific Elective IV
- Department Specific Elective V
- Open Elective IV
- Project 4

## VIII Semester

- Department Specific Elective VI
- Cross Platform Application
- DevOps
- Intellectual Property Rights
- Internship -3
- Research*

| Department Specific Electives | | | | | | |
|---|---|---|---|---|---|---|
| DSE Tracks | | Elective-I | Elective-II | Elective-III | Elective-IV | Elective-V | Elective-VI |
| | | 5th Semester | 6th Semester | 6th Semester | 7th Semester | 7th Semester | 8th Semester |
| Track-I | Mobile Application | Mobile Development and Network Administration | Full Stack Mobile Application Development | Kotlin for Java Developers | Advanced Android Application Development | Mobile game app development platforms | Google App engine |
| Track-II | Cloud Services solutions | Mobile Computing for Big Data Analytics | Mobile Communication | Cloud Web Services | Cloud data engineering | Digital Advertising Strategy for Mobile Application | Installing and Managing Google Cloud's Apigee API Platform |
| Track-III | IoT (Internet of Things) and Cloud Security | Sensor Technology in IoT | IoT Security | IoT Cloud architecture | IoT cloud solution development | Cloud Security Tools and Cyber Attacks | Advanced System Security Design |

| Computer Science and Engineering (Open Elective Baskets) | | | |
|---|---|---|---|
| Sl. No | Finance and Accounting | Entrepreneurship and new venture creation | Marketing and Management |
| 1 | Finance for non-finance professionals | Entrepreneurship Theory and Practice | Marketing Management |
| 2 | Wealth Management | Launching and managing an enterprise | Consumer Behavior |
| 3 | Indian Financial System | Business Plan and Project Implementation | Brand Management |
| 4 | Financial Reporting | Sustainable Entrepreneurship | Product Management |