

**VALUABLE DATA NEEDS
INVALUABLE PROTECTION**

JAIN UNIVERSITY

Declared as Deemed-to-be University u/s 3 of the UGC Act, 1956



B.Sc. in Information Security Management Services

Knowledge Partner

iNURTURE Tomorrow's here
Education Solutions

PROGRAMME OVERVIEW

The main goal of this course is to provide students with an understanding of how information security functions in an organization and to make them understand the background and foundation into the many dimensions of information security. They will study security from multiple perspectives including security policies to advance tools. The course will focus on the models, the tools and the techniques for enforcement of security policies, with emphasis on the use of cryptography.

To be familiar with Information Security matters and a clear understanding of its importance, understanding external and internal threats to an organization, familiarity with the Forensics methodology in collecting digital evidence, exposure to the stages of Ethical Hacking for defending the organization from external and internal threats, discover, analyze & deal with IT threats to an organization, understand fundamentals of Cryptography Understand Network Security Protocols & Information security governance and related legal and regulatory issues.

Programme Name

Bachelor of Science

Programme Code

003

Course code and Name

310 B. Sc in Information Security Management Services

Degree Awarded

Bachelor of Science

Duration of the Programme

3 years, 6 semesters

Eligibility

The minimum qualification to apply is a PUC / ISC / CBSE or Equivalent stage.

Medium of Instruction / Examination

English

Study Campus

School of Sciences - Dept. of Information Technology
Jain University, # 34, 1st Cross, JC Road, Bangalore - 560 001

Programme Timings

8:30 am - 4:30 pm (Mon to Sat)

Course Advisor

Dr. Easwaran Iyer
M: +91 98457 26725

Examinations & Assessments

1. Internal tests
2. Assignments
3. Seminar presentation

4. Class tests
5. Preparatory theory and Practical examination
6. End term theory and Practical examination

Curriculum

Semester 1

Language

English

Introduction to Linux/ Unix concepts

Fundamentals of Operating System: I

Programming Fundamentals with C Programming

Learning Labs: Programming with C Lab

Computer & Operating System Lab

Value Enhancing Course (VEC): Computer Fundamental

Semester 2

Language

Communicative English

Fundamentals of Operating Systems II

Introduction to Data Structures

System Configuration and Maintenance

Learning Labs: Object Oriented Programming Lab

Mini Project 1

Value Enhancing Course (VEC): Environmental Science

Semester 3

Internet Security Administration

Routing and Switching Administration

Microsoft Windows Server Network Infrastructure

Linux System and Network Administration

Solaris System and Network Administration

Learning Labs: Network Support Lab

Mini Project – 2

Value Enhancing Course (VEC): Indian Constitution

Semester 4

Database Security Fundamentals

OSI Layer & Security Protocols

Cryptography

Security Threats & Trends

Ethical Hacking Fundamentals

Learning Labs

Ethical Hacking Fundamental - Lab

Mini Project – 3

Value Enhancing Course (VEC): Mind Management and Human Values

Semester 5

Infrastructure Development Lifecycle & Web Security

Virtualization & Cloud Security

Mobile, Wireless and VOIP Security
Computer Forensics
And Investigation
IT Governance, Risk & Information Security Management
Learning Labs: Computer Forensics Lab
Mini Project – 4

Semester 6

Internship: Project dissertation viva-voce

CAREER OPPORTUNITIES

The global IT services market size is \$846 Billion (Source: Gartner Research) at 6.6% CAGR and India's IT Outsourcing market is estimated to be \$60 Billion as per NASSCOM 2011 report. As threats increase and enterprises place an increasingly higher level of priority on the security function, the need for trained staff is very high. Employers are looking for highly skilled and qualified professionals that possess a basic understanding of information security concepts, directly related experience and strong technical skills. But those who do the hiring say such staff are becoming increasingly difficult to find.

The Career Impact Survey-2012 conducted by (ISC)², from more than 82,250 security professionals from more than 135 countries found that "62 percent reported that they are looking to hire additional permanent or contract information security employees in 2012. Roughly 34 percent reported an increase in new hires in 2011." It also concludes that "If you're a well-trained, experienced professional in today's IT security market, you are facing a world of opportunity. But if you're an IT executive looking to find such people for your enterprise, you're in for a tough challenge." Even in the most difficult of economic times, security is a full-employment field. With the growing number of threats on the horizon, and the growing awareness of cyber security vulnerabilities and issues inside the enterprise, it is clear that IT security will be a top priority for Government and Corporate in the coming year and likely for years to come.

Job opportunity for Cyber Security Professions are available at various departments of different sectors like Corporate, Banking, Finance and Insurance, Defense and Police, Government, Legal and Cyber Forensic Consultant. The positions that these IT Security professions can hold are Chief Information Security Officer, Information Security Officer, Database Security Officer, Information Security Expert, Malware Analyst, Forensics Expert, Forensics Analyst, Incident Responder, Business Continuity Manager, IT Security Auditor, Penetration Tester, Ethical Hacker, and Security Testing Engineer etc.