Department of B.Sc Computer Science and Cognitive Systems

COGNITIVE SYSTEMS

This program would ensure that the students graduating from this will gain knowledge in not only the core topics of Computer Science, but also develop an equal appreciation of current industry standards. ·Students will learn to comprehend and integrate their research practice in computational linguistics ("language"), machine learning ("learning"), and artificial intelligence ("reasoning"). ·Special features of this program include, industry ready syllabus drafted in collaboration with TCS. This facilitates more placement opportunities after completion of the course. ·Noting that the field of computer technology is fast changing due to innovation and automation, the new technologies like Artificial Intelligence, Machine Learning, Big Data Analytics incorporated in this program play a pivotal role in the career of students.

Vision & Mission

Vision To impart value-added degree with an outstanding education, enhancing analytical skills, teamwork abilities and personality development with moral values.

· **Mission** To provide our students with the knowledge and abilities necessary to solve the multifaceted technological issues of present-day society.



Programs offered

B.Sc Computer Science and Cognitive Systems

Curriculum Highlights

- Mathematical Foundation for Cognitive Systems
- Programming Languages
- AI & ML for Robotics
- Big Data Analytics

Unique Features of Our Program

- COMPREHENSIVE LEARNING
- Students gain experience in core computer science subjects while also exploring the intricacies of Cognitive Systems, including AI-driven decision-making and automation.
- PRACTICAL LEARNING
- Through hands-on projects and workshops, students apply Cognitive Systems concepts to real-world scenarios, enhancing their skills in machine learning, natural language processing, and intelligent systems.

Career Opportunities

- Software Engineer
- AI/Machine Learning EngineerCloud Computing & Virtualization
- AI Cognitive Support Engineer
- Cognitive Scientist
- Software Developer
- Test Engineer
- Data Scientist

Higher Education Prospects

Students are also eligible to pursue higher education in:

- M.Sc. (Computer Science)
- M.Sc. (Data Science)
- M.Sc. (Cognitive Systems)
- M.Sc. (Information Technology)
- M.Sc. (Big Data Analytics)
- MBA or any other allied program

Admission Guidelines

- Candidates must have completed 10+2 or passed with minimum of 60% or above with MPC / MEC at intermediate level.

Why Loyola Academy?

- NAAC Accredited and recognized for academic excellence.
- Strong industry connections ensuring top-notch placements.
- Innovation-driven approach with a focus on emerging technologies.

WISDOM TRUTH SERVICE

LOYOLA ACADEMY

B.Sc Computer Science and Cognitive Systems

SEM 1

SUBJECTS

- GENERAL ENGLISH-I
- VALUE EDUCATION & PERSONALITY DEVELOPMENT
- COMPUTER FUNDAMENTALS
- OPERATING SYSTEMS
- PROBLEM SOLVING & PROGRAMMING IN C
- INTRODUCTION TO WORKSHEETS

SEM 2

SUBJECTS

- GENRAL ENGLISH-II
- INDIAN HERITAGE & CULTURE
- COMPUTER NETWORKS
- SERVER ADMINISTRATION
- DATA STRUCTURES WITH C
- MATHEMATICS FOR COGNITIVE SCIENCE

SEM 3

SUBJECTS

- ENVIRONMENTAL STUDIES & GENDER SENSITIZATION
- INTRODUCTION TO WORKSHEET
- DISCRETE MATHEMATICS
- PYTHON PROGRAMMING
- INFRASTRUCTURE MANAGEMENT
- VIRTUALIZATION AND CLOUD

SEM 4

SUBJECTS

- PROBABILITY & STATISTICS
- OBJECT ORIENTED SYSTEMS DEVELOPMENT
- ARTIFICIAL INTELLIGENCE
- DBMS
- PROCESS MANAGEMENT
- JAVA PROGRAMMING
- MINI PROJECT

SEM 5

SUBJECTS

- INFORMATION & STORAGE MANAGEMENT
- CLOUD COMPUTING TOOLS &TECHNIQUES
- MACHINE LEARNING TECHNIQUES
- SOFTWARE TESTING
- CLIENT RELATIONSHIP MANAGEMENT
- INTRODUCTION TO DIGITAL
- TECHNOLOGY

SEM 6

SUBJECTS

- PRINCIPLES OF INFORMATION SECURITY
- COGNITIVE COMPUTING
- INFRASTRUCTURE SECURITY
- IT INFRASTRUCTURE LIBRARY
- BIG DATA ANALYTICS
- MAJOR PROJECT

EXTRA CURRICULAR ACTIVITIES

- SPORTS
- RESONANCE

STUDENT SUPPORT

- ACADEMIC COUNSELING
- MENTORING
- GENERIC ELECTIVE
- SELF STUDY
- ADD-ON COURSE

NON-CGPA COURSES

- PLANET
- NPTEL
- BRIDGE COURSE

STUDENT CENTRIC METHODS

- INDUSTRIAL VISITS
- MINOR PROJRCTS
- INTERNSHIPS
- RESEARCH PAPERS
- POSTER PRESENTATIONS
- GROUP DISCUSSIONS/ SEMINARS/DEBATES