

ST ALOYSIUS COLLEGE (AUTONOMOUS)

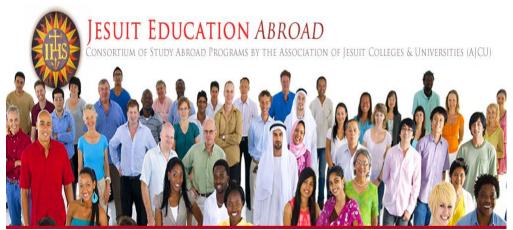
ALOYSIUS INSTITUTE OF MANAGEMENT & INFORMATION TECHNOLOGY

MANGALORE, KARNATAKA

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SCHOOL OF INFORMATION TECHNOLOGY & BIOINFORMATICS (P G Depts of MCA, MSc Software Technology, M.Sc Big Data Analytics, PGDCA)











Master of Computer Applications (MCA)

course was introduced in 1999 at St Aloysius College, as the first post graduate course of the College. Since then this course has become popular and a brand in the IT industry, as passed out graduates from this course in the last 20 years performed beyond the expectations of the Industry Leaders in Software Design, Development, Testing, Quality, Delivery, Analysis, IT Infrastructure Management, Supply Chain Management, Security Solutions, Banking Services Software's, Insurance & Financial Software's, Healthcare Services, Mobile Application Development, Cloud

Solutions & Management, Social Media & Business Analytics, Content management, Media Management, Research & Development, Product design, Entrepreneurs etc..

Changing technologies, job markets and higher education scenario in the country are the real opportunities for growth and development towards sustainability. Change, which motivates us to think innovatively and come out with a framework which is student friendly, well accepted by the academia and cater the needs of the above mentioned Industry profiles. Choice Based Credit System (CBCS) – is a framework where the student can select the Courses / Technologies as per his choice based on Interest / Level of Competency / Background knowledge / to achieve unique goal. This is First time in India, for the MCA course, where student is getting the freedom to select the subjects of his choice

School of Information Technology of AIMIT provides:

- International Standards in Course Structure in collaboration with Universities across the world
- World Class ambience for Information Technology & Bioinformatics Studies.
- Wi-Fi Enabled Campus Available 24x7 in the classrooms, campus and especially in the Hostels.
- Well Equipped Labs with Servers and Nodes with Advanced Software installed.
- Access to Latest e-Journals and e-Books through IEEE, ACM, Safari Books, 24x7 Books etc.
- Spacious Library & Reading Rooms with Latest Editions of Books on all IT Subjects, Soft Skills, Leadership, Competitive Exams, Interview Preparation, CAT, MAT, GRE, GATE etc; Industry programme manuals
- Advanced Syllabi under the Autonomous Stream; updated as per the Industry needs.
- IT Industry Collaborated Elective Papers with Infosys, EMC, Microsoft, IBM, Vmware, Cisco & Oracle.
- Excellent Placement Records with Leading Companies IT / ITES / IT Product co.s / Banking / Supply Chain Mgmt / Media Processing / Content Management / Animation / Games Design co.s etc.
- Internships in IT Companies For Services, Product Development, Research Labs
- IBM Software Center of Excellence for Add on Certification in DB2, RAD, Lotus, Software Testing, TGMC
- Microsoft Academia for Cloud Computing & Mobile Computing
- Collaboration with NASSCOM for NAC-TECH Examination which enables Employment in 1300 companies
- Collaboration with Infosys, EMC, IBM, Microsoft, AMD, Robosoft, Cognizant, AMD, CDAC etc.
- Virtual Class Rooms & Tutorials Collaboration with IIT, Bomaby, Chennai (IIT Rurkee propose)
- Free & Open Source Software (FOSS) collaboration with CDAC-W3C
- Computer Society of India, IEEE, IEEE Computer Scoiety AIMIT Branch
- Placement Training Model Interviews, Analytics Labs, Summer & Winter Analytics Schools.
- Soft Skill Training in association with Infosys Leadership Development Institute, Mysore
- Leadership opportunity & Training in organizing various activities and Events in the Campus
- National Level Seminars & Paper presentations to enable Research Oriented thinking
- Webinars on Latest Technologies by IT Industries & Labs Expert Interaction with the students.
- Center for Creativity & Innovation & Incubation to Promote Entrepreneurship (start up companies)
- MAGIS International Association for the Jesuit students to do more and connect to other Jesuit campuses
- National Level IT Fests (epITome), IT Exhibition (Infovision), International Conference (SACAIM), Symposium (Anveeksha), Talent Hunt (Lakshya), Sports Day (Utkarasha), Defining Dialogues (Alumni Interaction)

MCA –I Year: Choice Based Credit System (CBCS)						
I Semester			II Semester			
	E1	Database Management Systems	PH 601.2	E1	Cloud Computing with Amazon Web Services	
PH 601.1	E2	Database Design and Implementation		E2	Grid and Cluster Computing	
	E3	NoSQL with MongoDB		E3	High Performance Computing	
	E1	Data Structures & Analysis of Algorithms		E1	Software Engineering and UML	
PH 602.1	E2	Data Structures & Graph Theory	PH 602.2	E2	Object Oriented Software Engineering	
	E3	Advanced Data Structures and Algorithms		E3	Agile Software Development	
	E1	Object Oriented Programming with Java	PH 603.2	E1	Mobile Application Development using Android	
PH 603.1	E2	Enterprise Computing with Advanced Java		E2	Cross Mobile App Development with React Native	
	E3	Enterprise Computing : Java EE Frameworks		E3	Mobile App Development for iOS with Swift	
	E1	Web Design with HTML5, CSS, Java Script		E1	Natural Language Processing	
PS 604.1	E2	Web Programming with PHP & MySQL	PS 604.2	E2	Image Processing & Pattern Recognition	
	E3	Web Application Development using Python		E3	Bioinformatics Algorithms, Databases and Tools	
	E1	Probability and Stochastic Processes	PS 605.2	E1	Data Warehousing & Data Mining	
PS 605.1	E2	Operations Research		E2	Business Intelligence and Advanced Data Mining	
	E3	Modeling and Simulation		E3	Data Science and Analytics	
PH 606.1 P	DBMS and Data Structures Lab		PH 606.2 P	Cloud Computing and Mobile App Development Lab		
PS 607.1 P	Java & Web Development Lab		PS 607.2 P	Advance computing and data mining		
PAO 608.1	Business Communication and Entrepreneurship		PPR 608.2	Advanced Entrepreneurship & Mini Project		
	Technical Seminar		PAO 609.2	Tech	Technical Writing and Presentation – I	

MCA – II Year: Choice Based Credit System (CBCS)						
	III Semester			IV Semester		
	E1	Functional Programming Paradigm		Industry Internship		
PH 601.3	E2	Internet of Things and Applications Development	P 601.	4 Project Work		
	E3	Augmented and Virtual Reality		Research Project / Dissertation		
	E1	Web Development with Angular.js, Node.js	Add On / Certificate Courses/ Value added programmes offere			
PH 602.3	E2	Content Management with WordPress	C1	IIC by MHRD to promote Innovation Activities		
	E3	Blockchain Technology with Ethereum	C2	Entrepreneurship programme from Wadhwani Foundation		
	E1	Computing with C# and .NET Framework	СЗ	Mule Soft Developer Certification by Sales Force		
PH 603.3	E2	Web Technologies & .NET Framework	C4	Infosys Campus Connect – InfyTQ		
	E3	Cross-Platform Development using .NET Core	C5	TCS Analytics Center for Big Data Analytics		
	E1	Cognitive Computing and Artificial Intelligence	C6	Dell - EMC- Programmes on Cloud and Big Data		
PS 604.3	E2	Computational Intelligence and Machine Learning	C7	IBM Industry Aligned Programes / Certifications		
	E3	Deep Learning and Neural Networks	C8	Vmware IT Academy Certification Programmes		
	E1	Big Data Analytics : MapReduce and Hadoop	C9	UniCourt Academia Initiative for Functional Programming		
PS 605.3	E2	Big Data Analytics with Scala and Spark	C10	Amazon Web Services (AWS) Certification		
	E3	Big Data Visualization using Tableau	C11	STEP –The Hindu English Proficiency Test		
PH 606.3 P	Web Application Development & .NET Lab		C12	ICT Academy Workshops / seminars / Certifications		
PS 607.3 P	Machine Learning & Big Data Lab		C13	Seminars from NASSCOM, FICCI, CII, ASOCHEM		
PPR 608.3	Business Consultancy Project		C14	IEEE & IEE CS / CSI / ISTE Student member		
PAO 609.3	Technical Writing and Presentation – II		C15	Rural Immersion Programme		

Master of Science –Software Technology Advanced Course for Software Professionals					
Car	Campus Connect – Foundations of IT		I Semester		
FIT 1	MS Excel for Data Analysis	PH531.1	Data Structures and Analysis of Algorithms		
FIT 2	Fundamentals of Programming	PH532.1	Database Management Systems		
FIT 3	Object Oriented Programming	PH533.1	Object Oriented Programming with Java		
FIT 4	System Analysis and Design	PH534.1P	DBMS and Java Lab		
FIT 5	Introduction to DBMS	PH535.1	Web Design with PHP and MySQL		
FIT 6	Leadership Training	PS536.1P	Data Structures AOA & Web Design Lab		
FIT 7	System and Design thinking	PS537.1	Software Engineering with UML		
FIT 8	Soft Skills		Soft Skills		

	II Semester	III Semester			
PH531.2	Programming with Python		PH531.3	Cloud Computing with Amazon Web Services	
PH532.2	Mob	ile Application Development with Android	PH532.3	Web Technologies and .NET Framework	
PH533.2P	Pyth	on and Android Lab	PH533.3P	AWS and .NET Lab	
PS 534.2	E1	Foundations of Data Science	PS534.3	E1	Data Science Research Methods
PS 534.2	E2	Data Warehousing and Data Mining		E2	Natural Language Processing
PS535.2	E1	Artificial Intelligence & Cognitive Computing	PS535.3	E1	Big Data Analytics with Scala and Spark
P3333.2	E2	Machine Learning and Deep Learning		E2	Big Data Analytics with MapReduce and Hadoop
PS536.2P Machine Learning and Data Science Lab			PS536.3P	Big D	ata Analytics and Research Lab
Open Elective Offered					Open Elective Offered
PO 537.2	E1	Enterprise Information System	P0537.3	E1	Social Media Analytics
PU 537.2	E2	Marketing Analytics		E2	Streaming Analytics

	IV Semester
P 531.4	Project Work / Industry Internship / Research work at R& D Labs

Post Graduate Diploma in Computer Applications (PGDCA)					
	I Semester	II Semester			
D101.1	Software Engineering & UML	D101.2	Enterprise Resource Planning with SAP		
D 102.1	Business Analytics Using Excel	D 102.2	Web Technologies with PHP and MySQL		
D 103.1	RDBMS Concepts with ORACLE	D 103.2	Multimedia and Animation		
D 104.1	Web Programming and Applications	D 104.2	Web Technologies & SAP Lab		
D105.1	UML, Business Excel and Tally Lab	D105.2	Multimedia, Animation & DTP Lab		
D106.1	ORACLE and Web Programming Lab	D106.2	Soft Skills - II		
D107.1	Soft Skills -I	D107.2	Project Work		

Master of Science – M.Sc Big Data Analytics					
Cam	Campus Connect – Foundations of IT		I Semester		
FIT 1	MS-Excel for Data Analysis	PH 801.1	Statistical Methods		
FIT 2	Fundamentals of Programming	PH 802.1	Probability and Stochastic Process		
FIT 3	Object Oriented Programming	PH 803.1	Linear Algebra and Linear Programming		
FIT 4	Basic Unix Programming	PH 804.1 P	Computing for Data Sciences Lab		
FIT 5	Introduction to Relational DBMS	PS 805.1	Database Management System		
FIT 6	Systems & Design Thinking	PS 806.1	Python Programming		
FIT 7	Project Work on Data Analysis	PS 807.1 P	DBMS & Python Programming Lab		
FIT 8	Leadership Training		Project Work & Seminar		

II Semester		III Semester		
PH 801.2	Machine Learning – I	PH 801.3	Machine Learning – II	
PH 802.2	Enabling Technologies for Data Science – I	PH 802.3	Enabling Technologies for Data Science – II	
РН 803.2	HC Electives: (Choose ONE) 1. Operations Research 2. Cloud Computing 3. Natural Language Processing 4. Unix Programming 5. Operating Systems 6. Multivariate Statistics	PH 803.3 P	Machine Learning and Data Science Lab - II	
PH 804.2 P	Machine Learning and Data Science Lab - I	PS 804.3	Data Visualization with Tableau & Modeling in Operation Management	
PS 805.2	Foundations of Data Science	PS 805.3	SC Electives: (Choose ONE) 1. Introduction to Econometrics and Finance 2. Time Series Analysis and Forecasting 3. Bioinformatics 4. Big Data Technologies and Architecture	
PS 806.2	Advanced Statistical Methods	PS 806.3	SC Electives: (Choose ONE) 1. Intellectual Property Rights 2. Cyber Security 3. Text Mining 4. Advanced Analytics	
PS 807.2	Value Thinking	PS 807.3 P	Data Visualization with Tableau & Operation Management Lab	
PS 808.2 P	Programming for Big Data and Advanced Statistical Methods Lab	PS 808.3 P	Lab on Elective-1 & 2	
OE 809.2	Statistical Data Analysis using R	OE 809.3	Big Data & Design Thinking	
	Project Work & Seminar		Project Work & Seminar	

IV Semester				
PS 801.4	Domain Knowledge Project			
PH 802.4	Project Work / Industry Internship / Research work at R& D Labs			

CAMPUS PLACEMENTS COMPANIES FOR MCA / M.Sc Software Technology / M.Sc Big Data Analytics





140 Years of Forming Leaders

Inspiring Minds, Investing in Knowledge, Transforming Lives



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