SARVAJANIK UNIVERSITY

INCLUSIVE | INTEGRATED | INNOVATIVE

Faculty of Science

Shree Ramkrishna Institute of Computer Education & Applied Sciences, Surat

M.Sc. Information Technology

Master of Science Information Technology 2021-22

Introduction:
This programme aims to develop critically informed, agile and resourceful graduates, who are prepared to adapt to future changes in information technology in the business context via a comprehensive understanding of fundamental theories and current practices.
The MSc IT examines issues, trends, current practices and technological alternatives in the field of business Information Technology and provides you with up-to-date technological and business skills, and specialist knowledge to help you design and/or implement appropriate, IT-driven solutions in ways that address the needs of modern business organisations.
The MSc IT provides a common foundation in IT for all students. This is then followed by a selection of modules which fall into two groups and depends upon your career goals and ambitions: a technical group (eg IOT, AR and VR etc.); or Info Security group (Cyber Security & Forensics, Blockchain,etc.).

Objective of Programme:
The Objective of the program is to impart knowledge of fundamentals and/or latest theories, concepts, methods, techniques and tools related to various areas of Computer Science, Applications and Information Technology and specifically in the area of Mobile based, cloud based, Web based Application Development, Software Engineering, Data Management and Intelligent Systems.

Programme Outcome:

At the successful completion of the program, students will be able to start their career in the IT and Software industry.

Eligibility Criteria:
Any candidate who has passed-
Bachelor's degree in Computer Science / Computer Applications / Information Technology / Cyber Security/ Data Science / IoT / Bigdata / AI / Computer Engineering / Electronics Engineering / Electronics and Communication engineering or an equivalent examination OR
The candidate who has passed equivalent exam from other subjects or boards need to avail eligibility certificate for this programme from the Board of Equivalence (BoE) of the
Sarvajanik University.

Semester wise course group wise credit allocation for Post Graduate Programme (Annexure I)

Semester	DSC		SEC		DSE		Practical		Total
	No. of Courses	Credit Th.	No. of Courses	Credit Th.	No. of Course	Credit Th.	No. of Course	Credit	
1	2	8	1	4	1	4	1	8	**24**
2	2	8	1	4	1	4	1	8	**24**
3	2	8	1	4	1	4	1	8	**24**
4	2	16	1	4	1	4	1	-	**24**
Total	**08**	**40**	**04**	**16**	**04**	**16**	**04**	**24**	**96**

Evaluation Scheme:

Semester	Subject group	Internal					External	Grand Total
		CCE	Attend.	Assign.	Internal Exam/ Viva-Voce	Total Int.		
1	DSC-1	40	10	20		70	30	100
	DSC-2	40	10	20		70	30	100
	SEC-1	40	10	20		70	30	100
	DSE-1	40	10	20		70	30	100
	Practical	60	20	-	60	140	60	200
					Total	**420**	**180**	**600**
2	DSC-3	40	10	20		70	30	100
	DSC-4	40	10	20		70	30	100
	SEC-2	40	10	20		70	30	100
	DSE-2	40	10	20		70	30	100
	Practical	60	20	-	60	140	60	200
					Total	**420**	**180**	**600**
3	DSC-5	40	10	20		70	30	100
	DSC-6	40	10	20		70	30	100
	SEC-3	40	10	20		70	30	100
	DSE-3	40	10	20		70	30	100
	Practical	60	20	-	60	140	60	200
					Total	**420**	**180**	**600**
4	DSC-7	150	50	-	150	350	150	500
	DSE-4	30	10	-	30	70	30	100
					Total	**420**	**180**	**600**

M.Sc.(IT) Programme subject list: (Annexure-2)

Sem	Paper type	Paper No.	Paper Title
1	Core course	DSC-1	Fundamentals of Data Science
		DSC-2	Web Programming -1
	Skill Enhancement Course	SCE-1	Advanced Database Technologies
	Professional Elective	DSE-1	1. Cyber Security and Forensics-1 2. Web Engineering 3. Distributed and Parallel Computing 4. Foundation of Advanced Computing 5. Fundamentals of AI
2	Core course	DSC-1	Mobile Application Development - 1
		DSC-2	Web Programming -2
	Skill Enhancement Course	SCE-1	Advanced Cloud Programming
	Professional Elective	DSE-1	1. Cyber Security and Forensics-2 2. UI/UX development 3. Research in computing 4. Machine Learning 5. Advanced Python Programming
3	Core course	DSC-1	Internet of Things
		DSC-2	Game Development
	Skill Enhancement Course	SEC-1	1. Advanced JavaScript Framework 2. Data Visualization 3. Blockchain Technology 4. Computational Linguistic 5. Social Media Mining and Analytics
	Professional Elective	DSE-1	1. Mobile Application Development - 2 2. Bigdata & Analytics 3. Artificial Neural Network and Deep Learning 4. Cyber Law and Practices
4	Core course	DSC-1	Project / Dissertation
	Skill Enhancement Course	SEC-2	Seminar Presentation/Review of published research paper

Name of Program	**Master of Science [Information Technology]**
Abbreviation	M.Sc. IT
Duration	2 Years
Objective of Program	The Objective of the program is to impart knowledge of fundamentals and/or latest theories, concepts, methods, techniques and tools related to various areas of Computer Science, Applications and Information Technology and specifically in the area of Mobile based, cloud based, Web based Application Development, Software Engineering, Data Management and Intelligent Systems.
Program Outcome	At the successful completion of the program, students will be able to start their career in the IT and Software industry.
Program Structure	

Semester 1

Course Code	**Title**	**Teaching Hrs. per week**		**Course Credits**	**University Examination**		**Internal Marks**	**Total Marks**
		Theory	**Practical**	**Marks**	**Duration**	**Marks**		
	DCS-1 Fundamentals of Data science	4		4		30	70	100
	DSC-2 Web Programming -1	4		4		30	70	100
	SEC - 1 Advanced Database Technologies	4		4		30	70	100
	DSE-1 Elective	4		4		30	70	100
	Practical		16	8		140	60	200
		16		24				600

NOTE: Following subjects are listed as elective subjects of semester.

ELECTIVE SUBJECTS

1	Cyber Security and Forensics-1
2	Web Engineering
3	Distributed and Parallel Computing
4	Foundation of Advanced Computing
5	Fundamentals of AI

Semester 2								
Course Code	**Title**	**Teaching Hrs. per week**		**Course Credits**	**University Examination**		**Internal Marks**	**Total Marks**
		Theory	**Practical**	**Marks**	**Duration**	**Marks**		
	DSC-3 Mobile Application Development - 1	4		4		30	70	100
	DSC-4 Web Programming - 2 NodeJS	4		4		30	70	100
	SEC-2 Advanced Cloud Programming	4		4		30	70	100
	DSE-2 Elective	4		4		30	70	100
	Practical-1		16	8		140	60	200
		16		24				600

NOTE: Following subjects are listed as elective subjects of semester.

ELECTIVE SUBJECTS

1	Cyber Security and Forensics-2
2	UI/UX development
3	Research in computing
4	Machine Learning
5	Advanced Python Programming