SARVAJANIK UNIVERSITY

INCLUSIVE | INTEGRATED | INNOVATIVE

Faculty of Science

Shree Ramkrishna Institute of Computer Education & Applied Sciences, Surat

M.Sc. Advanced Computing

Master of Science Advanced Computing 2021-22

Introduction:

The demands of our global, data-intensive, knowledge based economy is creating a skills gap and making now the perfect time to gain the skills necessary to meet demand. This course is aimed at students who have a substantial background in computing and want to study advanced computing concepts and state of the art technologies in more depth.

This taught postgraduate course offers you the opportunity to study a wide variety of topics in depth in Artificial Intelligence, NLP, Data Science, BigData, Data Analytics etc. with dedicated experts.

The programme is suitable for students who are primarily interested in a career orientated towards development and applications in industry, as well as it is aimed at students interested in a research career either in the industrial or academic sector.

Objectives of the 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 Advanced Computer Science. Applications and Information Technology and specifically in the area of Data Science, Cloud based, Web based Application Development, Machine Learning, Deep Learning and Intelligent Systems.

Programme Outcome:

At the successful completion of the program, students will be able to start their career in the field of Artificial Intelligence, Data Science and Research Domains of Computer Science.

Eligibility Criteria:

- A candidate Bechlor'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.
- 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	1	20			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. Advanced Computing Programme Subject List: (Annexure-2)

Sem	Paper type	Paper No.	Paper Title
1	Core course	DSC-1	Fundamentals of Data Science
		DSC-2	Fundamentals of AI
	Skill Enhancement	SEC-1	Advanced Database Technologies
	Discipline Specific Elective	DSE-1	Cyber Security and Forensics-1
			Web Programming-1
			Web Engineering
			Distributed and Parallel Computing
			Foundation of Advanced Computing
2	Core course	DSC-3	Mobile Application Development - 1
		DSC-4	Machine Learning
	Skill Enhancement	SEC-2	Advanced Python Programming
	Discipline Specific Elective	DSE-2	1.Cyber Security and Forensics-2
			2.UI/UX development
			3.Advanced Cloud Programming
			4.Research in Computing
			5.Web Programming - 2 NodeJS
3	Core course	DSC-5	Bigdata Analytics
		DSC-6	Artificial Neural Network and Deep Learning
	Skill Enhancement Course	SEC -3	1. Mobile Application Development - 2 2. Cyber Law and Practices 3. Internet of Things
	Discipline Specific Elective	DSE-3	1. Advanced JavaScript Framework 2. Data Visualization 3. Blockchain Technology 4. Computational Linguistic 5. Social Media Mining and Analytics 6. Game Development
4	Core course	DSC-7	Project / Dissertation
		DSC-8	
	Skill Enhancement Course	SEC-4	
	Discipline Specific Elective	DSE-4	Seminar Presentation/Review of published research paper