

**SIES College of Commerce and Economics (Autonomous),  
Sion (East)**

**Department of Information Technology**

**M.SC (IT)**

**PROGRAM OUTCOMES**

PO- 1: Learners will acquire proficiency in the field of Information Technology.

PO- 2: Learners will upgrade and strengthen analytical and research skills.

PO- 3: Learners will apply acquired knowledge, tools, and techniques in an ethical and professional manner.

PO- 4: Learners will enhance future ready skills for Industry and Academics.

PO- 5: Learners will be trained in leadership skills and demonstrate social responsibilities with sensitivity towards sustainability.

**Program: M.Sc. (Information Technology)**

**Year: Part I**

**Semester: I**

**Course: Data Science**

Course Code: MIT-MAJS1-501

Course Outcomes:

After completion of the course,

No	Course Outcome	PO Mapping
CO 1 (Remember)	the learner will be able to identify various programming abilities and recognize their use to develop various Data Science Models.	PO1, PO2, PO4
CO 2 (Understanding)	the learner will be able to demonstrate proficiency with statistical analysis of data.	PO1, PO2, PO3, PO4

CO 3 (Applying)	the learner will be able to apply and interpret data science concepts and methods to solve real-world problems and effectively communicate the solutions.	PO1, PO3, PO4, PO5
CO 4 (Analysing)	the learner will be able to analyse statistical data with professional statistical software.	PO1, PO2, PO3, PO4
CO 5 (Evaluating)	the learner will be able to evaluate models to devise solutions to data science tasks.	PO1, PO3, PO4, PO5
CO 6 (Creating)	the learner will be able to formulate and use appropriate models of data analysis to discover hidden solutions to business-related challenges.	PO1, PO3, PO5

**Program: M.Sc. (Information Technology)**

**Year: Part I**

**Semester: I**

**Course: Cloud Computing**

Course Code: MIT-MAJS1-503

Course Outcomes:

After completion of the course,

No	Course Outcome	PO Mapping
CO 1 (Remember)	the learner will be able to identify the technical foundations of cloud computing architectures, cloud service and deployment models.	PO1, PO2 , PO4
CO 2 (Understanding)	the learner will be able to explain the principles of Parallel and Distributed Computing, Virtualization and development of Cloud Computing.	PO1, PO2, PO4
CO 3 (Applying)	the learner will be able to apply principles of best practice in cloud application design and management.	PO1, PO3, PO4, PO5
CO 4 (Analysing)	the learner will be able to analyse	PO1, PO2, PO3,

	the problems and solutions to cloud security problems.	PO4, PO5
CO 5 (Evaluating)	the learner will be able to evaluate the various cloud technologies for implementing applications.	PO1, PO2, PO3, PO4, PO5
CO 6 (Creating)	the learner will be able to develop new ideas and innovations in cloud computing.	PO1, PO2, PO3, PO4, PO5

**Program: M.Sc. (Information Technology)**

**Year: Part I**

**Semester: I**

**Course: Research in Computing**

Course Code: MIT-RMS1-505

After completion of the course,

No	Course Outcome	PO Mapping
CO 1 (Remember)	the learner will be able to define different methodologies and techniques used in research work.	PO-1, PO-2, PO-3
CO 2 (Understanding)	the learner will be able to extend basic computer skills necessary for the conduct of research.	PO-1, PO-2, PO-3

CO 3 (Applying)	the learner will be able to apply the basic function and working of analytical instruments used in research.	PO-1, PO-2, PO-3
CO 4 (Analysing)	the learner will be able to select the required numerical skills necessary to carry out research.	PO-1, PO-2, PO-4
CO 5 (Evaluating)	the learner will be able to summarize the research problem for appropriate research design and aligned with social and sustainability concerns.	PO-1, PO-2, PO-3, PO4, PO5
CO 6 (Creating)	the learner will be able to devise the procedures of sampling, data collection, analysis and reporting.	PO-1, PO-2, PO3, PO4

**Program: M.Sc. (Information Technology)**

**Year: Part I**

**Semester: I**

**Course: Soft Computing Techniques**

Course Code: MIT-ELES1-507

Course Outcomes:

After completion of the course,

No	Course Outcome	PO Mapping
CO 1 (Remember)	the learner will be able to define and describe the soft computing techniques such as fuzzy logic, neural networks and genetic algorithms.	PO-1, PO-4
CO 2 (Understanding)	the learner will be able to explain and demonstrate different soft computing techniques and their applications in various domains.	PO-1, PO3, PO-4
CO 3 (Applying)	the learner will be able to apply the fundamentals of fuzzy sets and the principles of evolutionary algorithms to real-world problems.	PO-1, PO-3, PO-4, PO5
CO 4 (Analysing)	the learner will be able to compare and contrast different neural network architectures.	PO-1, PO-2, PO-3, PO-4
CO 5 (Evaluating)	the learner will be able to evaluate various soft computing approaches for finding the optimal solutions.	PO-1, PO-2, PO3 PO-4, PO5
CO 6 (Creating)	the learner will be able to design various applications based on the theoretical and practical components of soft computing techniques.	PO-1, PO-2, PO3 PO-4, PO5

**Program: M.Sc. (Information Technology)**

**Year: Part I**

**Semester: II**

**Course: Image Processing**

Course Code: MIT-MAJS2-501

After completion of the course,

No	Course Outcome	PO Mapping
CO 1 (Remember)	the learner will be able to explain digital images and recognize types of images and their resolution.	PO-1, PO-2, PO-4
CO 2 (Understanding)	the learner will be able to summarize the methodology to process the images.	PO-1, PO-2, PO-4
CO 3 (Applying)	the learner will be able to modify to improve and restore the quality of images.	PO-2, PO-3, PO-4
CO 4 (Analysing)	the learner will be able to compare the quality of images after restoring from compression or inverse transformation.	PO-2, PO-3, PO-4
CO 5 (Evaluating)	the learner will be able to evaluate the use of methodology for various operations on images like watermarking, compression, enhancement, restoration etc.	PO1, PO-2, PO-3, PO-4, PO5
CO 6 (Creating)	the learner will be able to design spatial / frequency domain filters to remove noise / artefacts from images.	PO1, PO-2, PO-4, PO-5

**Program: M.Sc. (Information Technology)**

**Year: Part I**

**Semester: II**

**Course: Modern Networking**

Course Code: MIT-MAJS2-503

After completion of the course,

No	Course Outcome	PO Mapping
CO 1 (Remember)	the learner will be able to identify state-of-the-art modern networking protocols, architectures and applications.	PO-1, PO-2, PO-4
CO 2 (Understanding)	the learner will be able to explain modern networking concepts of SDN, NFV, IoT from a design and performance perspective.	PO1, PO-2, PO-4
CO 3 (Applying)	the learner will be able to apply the concepts of software defined networks.	PO1, PO-2, PO-4
CO 4 (Analysing)	the learner will be able to analyse QoS and QoE of modern networking.	PO1, PO-2, PO-4
CO 5 (Evaluating)	the learner will be able to assess network function virtualization in detail.	PO1, PO-2, PO-4, PO-3
CO 6 (Creating)	the learner will be able to design IoT applications in different domains.	PO1, PO-2, PO-3, PO4, PO-5

**Program: M.Sc. (Information Technology)**

**Year: Part I**

**Semester: II**

**Course: Big Data Analytics**

Course Code: MIT-ELES2-505

Course Outcomes:

After completion of the course,

No	Course Outcome	PO Mapping
CO 1 (Remember)	the learner will be able to discover and define what is Big Data Analytics, its challenges and its uses in real time.	PO-1, PO-2, PO3, PO-4
CO 2 (Understanding)	the learner will be able to classify and describe the different analytical methods, algorithms and models in Big Data Analytics.	PO1, PO-2, PO-4
CO 3 (Applying)	the learner will be able to apply different classification methods and methodologies used in Big Data Analytics.	PO1, PO-2, PO-3, PO-4
CO 4 (Analysing)	the learner will be able to analyse and connect with different Hadoop architectures, distributed file systems and frameworks like Spark with PySpark.	PO1, PO-2, PO-3, PO-4
CO 5 (Evaluating)	the learner will be able to evaluate design patterns and data queries with HIVE.	PO1, PO-2, PO-4, PO-5
CO 6 (Creating)	the learner will be able to prepare and construct data analysis models using different techniques, methods and tools of Big Data Analytics.	PO1, PO-2, PO3, PO-4, PO-5