



**Criterion** : I – Curricular Aspects

**Metric** : 1.1.1 – Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) – M.Sc. (IT & M)

**Year** : 2015 - 2020



**FATIMA COLLEGE (AUTONOMOUS), MADURAI – 625018**

**NAME OF THE PROGRAMME: M. Sc. (IT & M)**

**PROGRAMME CODE: PSIM**

**COURSE OBJECTIVES:**

**2018-2019**

| COURSE CODE | COURSE TITLE                       | NATURE OF THE COURSE<br>(LOCAL/<br>NATIONAL/<br>REGIONAL/<br>GLOBAL) | COURSE DESCRIPTION   | COURSE OBJECTIVES  |
|-------------|------------------------------------|--|--|--|
| MIT318      | Data Communications and Networking | Global   | This course is to provide information about various data communication techniques like switching and networking concepts which includes layers | <ul style="list-style-type: none"> <li>Describe the components of a data communications system</li> <li>Identify various transmission media and signalling.</li> <li>Describe error detection and correction techniques. Describe switching techniques.</li> <li>Illustrate various networking devices.</li> </ul> |



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|        |                          |        |   |  |
|--------|--------------------------|--------|---|--|
|        |                          |        | and their corresponding protocols.  | <ul style="list-style-type: none"> <li>Analyse OSI Layer and TCP/IP layer.</li> </ul>  |
| MIT319 | Organisational Behaviour | Global | This Course help the students to develop cognizance of the importance of human behaviour. | <ul style="list-style-type: none"> <li>Demonstrate the applicability of the concept of organizational behaviour to understand the behaviour of people in the organization.</li> <li>Demonstrate the applicability of analysing the complexities associated with management of individual behaviour in the organization.</li> <li>Analyse the complexities associated with management of the group behaviour in the organization.</li> <li>Demonstrate how the organizational behaviour can integrate in understanding the motivation behind behaviour of people in the organization.</li> <li>Analyse various conflict management</li> </ul> |



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|         |                         |        |   |  |
|---------|-------------------------|--------|---|--|
|         |                         |        |   | techniques.  |
| MIT320  | JAVA & J2EE             | Global | This course enable the students to build object oriented java programs using the concept of abstraction, encapsulation, exception handling, packages, interfaces, threads and AWT controls. It also imparts the ability to develop projects in java with JDBC connectivity. | <ul style="list-style-type: none"> <li>• Understand the concepts of Object-Oriented Programming &amp; Java Programming Constructs.</li> <li>• Understand basic concepts of Java such as operators, classes, objects, inheritance, packages, Enumeration and various keywords.</li> <li>• Understand the concept of packages, threads, exceptions.</li> <li>• Design Java &amp; Java applet based applications.</li> <li>• Design JDBC related applications.</li> </ul> |
| MIT321A | Linux Shell Programming | Global | This course introduces the student to the Linux Operating system with particular emphasis on command line tools,  | <ul style="list-style-type: none"> <li>• Know the concept of Shell programming.</li> <li>• Implement various concepts with files.</li> <li>• Understand Linux Environment.</li> <li>• Recognize the concept of terminal and implement threads concept.</li> </ul>  |



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|         |                                       |        | utilities and shell scripting.  | <ul style="list-style-type: none"> <li>• Use Text based screens</li> </ul>   |
| MIT321B | Web Technology                        | Global | This course gives knowledge in Web development Technologies.  | <ul style="list-style-type: none"> <li>• Explain Various HTML &amp; DHTML tags.</li> <li>• Understand VbScript.</li> <li>• Know JSP concepts</li> <li>• Demonstrate asp.net concepts.</li> <li>• Develop WebPages with database.</li> </ul>  |
| MIT321C | Cryptography and Information Security | Global | The course covers the basics of the science of encryption and information security technology. It also provides the knowledge about the various risks that networks are faced with in this day and age, focussing on the various vulnerabilities of | <ul style="list-style-type: none"> <li>• Understands the basic concepts of security</li> <li>• Analyse various cryptographic algorithms while applying practically.</li> <li>• Identify email and IP security.</li> <li>• Compare different web security techniques.</li> <li>• Summarize the concepts of firewall and viruses.</li> </ul> |





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|---------|------------------------|--------|--|--|
|         |                        |        | systems.   |  |
| MIT322A | Advertising Management | Global | This course gives knowledge about the concepts and techniques in Advertising management in Indian context.   | <ul style="list-style-type: none"> <li>• Understand the concepts of advertising.</li> <li>• Analyse different advertising Ideas.</li> <li>• Know about media planning.</li> <li>• Describe about Advertisement.</li> <li>• Analyse advertising effectiveness.</li> </ul> |
| MIT322B | Management Accounting  | Global | This course targets to develop an insight into principles and techniques of accounting and utilization of financial and accounting information for planning decision making and control. | <ul style="list-style-type: none"> <li>• Understand the concepts of accounting.</li> <li>• Analyse different final accounts.</li> <li>• Know about cost accounting.</li> <li>• Describe about marginal costing.</li> <li>• Analyse budgetary control.</li> </ul>         |



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| MIT322C | Industrial Relations      | Global | This course introduces the fundamentals of industrial relations. It establishes industrial democracy based on the participation of labour in the management. | <ul style="list-style-type: none"> <li>• Understand the concepts of industrial relations.</li> <li>• Describe trade unions.</li> <li>• Analyse worker's participation in Management.</li> <li>• Examine Industrial Disputes.</li> <li>• Analyse settlement machinery.</li> </ul>  |
| MIT323  | LAB V Programming in JAVA | Global | This course gives hands on experience, practices the concepts of java programming language, and develops solutions for real world problems.                  | <ul style="list-style-type: none"> <li>• Implement Object Oriented programming concept using operators and control Structures..</li> <li>• Design java programs using inheritance, interfaces and packages.</li> <li>• Implement exception handling mechanism and multithreading concept.</li> <li>• Design Java applet based applications.</li> <li>• Design applications with JDBC connectivity.</li> </ul> |



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| MIT324 | LAB VI Web Designing           | Global | This course gives hands on experience in Web development Technologies.  | <ul style="list-style-type: none"> <li>• Explain Various HTML tags.</li> <li>• Design WebPages with DHTML.</li> <li>• Design Web pages using VB script.</li> <li>• Develop client side Scripting using VB script.</li> <li>• Develop WebPages with ASP.NET</li> </ul>              |
| MIT327 | Special Course II- PHP & MYSQL | Global | This course content plays a vital role in building the programming skill in PHP for designing innovative web pages. | <ul style="list-style-type: none"> <li>• Understand basic PHP syntax.</li> <li>• Apply MySQL commands.</li> <li>• Analyse various error handling and debugging techniques.</li> <li>• Design PHP programming with MySQL database.</li> <li>• Develop WebPages with PHP.</li> </ul> |



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## 2017 - 2018

| COURSE CODE | COURSE TITLE                                 | NATURE OF THE COURSE<br>(LOCAL/<br>NATIONAL/<br>REGIONAL/<br>GLOBAL) | COURSE DESCRIPTION  | COURSE OBJECTIVES   |
|-------------|--|--|---|---|
| MIT101      | Mathematical foundation for Computer Science | Global   | This course discuss fundamental concepts and tools in discrete mathematics with emphasis on their applications to computer science. | <ul style="list-style-type: none"> <li>• Understand mathematical logic to solve problems.</li> <li>• Understand sets, relations, functions and discrete structures.</li> <li>• Use logical notations to define and reason about fundamental mathematical concepts such as sets relations and functions.</li> <li>• Formulate problems and solve recurrence relations.</li> <li>• Model and solve real world problems using graphs and trees.</li> </ul> |





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|--------|------------------------------------|--------|--|---|
| MIT102 | Programming in C                   | Global | This course content plays a vital role in building the basic concepts in computers and the fundamental knowledge in programming. | <ul style="list-style-type: none"> <li>• Understand the basic concepts in Computer &amp; C Programming.</li> <li>• Identify and Apply different construct available for iteration such as 'for', 'while' and 'do-while'.</li> <li>• Understand various storage concepts.</li> <li>• Develop C programs using functions.</li> <li>• Summarize the concepts of Pointers and Files.</li> </ul> |
| MIT103 | Management Principles and Practice | Global | This course helps students in understanding the basic principles underlying the science of managing.                             | <ul style="list-style-type: none"> <li>• Understand the concepts of Planning.</li> <li>• Describe Organization Structure.</li> <li>• Analyse various leadership skills.</li> <li>• Develop communication skills.</li> <li>• Analyse various controlling types.</li> </ul>   |
| MIT104 | Data Structures and Algorithms     | Global | This course helps students to understand the basic data  | <ul style="list-style-type: none"> <li>• Identify the types of data structures like stack, queue and linked list.</li> <li>• Apply tree data structures.</li> </ul>   |



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|--------|-------------------------------|--------|---|--|
|        |                               |        | structures and algorithms by experimental learning.   | <ul style="list-style-type: none"> <li>• Demonstrate different hashing techniques and sorting techniques.</li> <li>• Describe the basic of graph terminologies and the operations involved in graph.</li> <li>• Discuss and implement various dynamic programming techniques.</li> </ul> |
| MIT105 | Visual Programming            | Global | This course introduces the concepts of Visual Programming.  | <ul style="list-style-type: none"> <li>• Understand Visual Basic Development Environment.</li> <li>• Analyse Various Controls.</li> <li>• Understand Menus and Graphics.</li> <li>• Analyse different ADO concepts.</li> <li>• Apply different concepts in .NET</li> </ul>               |
| MIT106 | Lab-I Data Structures using C | Global | This Course helps students to gain knowledge in various data structures and its working principles with | <ul style="list-style-type: none"> <li>• Develop programs using linear data structures and tree traversal.</li> <li>• Implement programs using doubly and circular linked list.</li> <li>• Construct programs using nonlinear data structures.</li> </ul>                                |



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|        |                                       |        |  |  |
|--------|---------------------------------------|--------|--|--|
|        |                                       |        | implementation.  | <ul style="list-style-type: none"> <li>• Apply stack and Queue operations.</li> <li>• Apply various sorting algorithms.</li> </ul>   |
| MIT107 | LAB-II Visual Programming             | Global | This course gives hands on experience in Visual Programming.   | <ul style="list-style-type: none"> <li>• Understand various application types.</li> <li>• Create dynamic window application.</li> <li>• Use asp.net controls in web application.</li> <li>• Build interactive WebPages.</li> <li>• Generate different reports.</li> </ul>  |
| MIT208 | Relational Database Management System | Global | This course introduces database design and creation using DBMS software. It also imparts various concepts in database management system. | <ul style="list-style-type: none"> <li>• Explain the structure and model of the relational database system.</li> <li>• Design multiple tables and use group functions, sub queries.</li> <li>• Design a database based on a data model considering the normalization to a specified level.</li> <li>• Develop E- R model based tables.</li> <li>• Evaluate different PL/SQL blocks.</li> </ul> |



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|--------|----------------------|--------|--|---|
| MIT209 | Business Research    | Global | This course introduces the tools and techniques of Research Methodology.                   | <ul style="list-style-type: none"> <li>• Understand some basic concepts of research and its methodologies.</li> <li>• Identify appropriate research topics.</li> <li>• Analyse different sampling methods.</li> <li>• Apply data collection technique.</li> <li>• write a research report and thesis</li> </ul>   |
| MIT210 | Software Engineering | Global | This course introduces the basic steps involved in Software Development Life Cycle (SDLC). | <ul style="list-style-type: none"> <li>• Understand how to plan a software project.</li> <li>• Analyse the cost estimate and problem complexity using various estimation techniques.</li> <li>• Prepare the SRS, Design document, Project plan of a given software system.</li> <li>• Apply Software design and implementation ideas in S/W project development.</li> <li>• Generate test cases using White Box testing and Black Box testing.</li> </ul> |





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|--------|----------------------|--------|---|--|
| MIT211 | Marketing Management | Global | This course helps students to understand the concepts of marketing management.  | <ul style="list-style-type: none"> <li>• Demonstrate strong conceptual knowledge in the functional area of marketing management.</li> <li>• Analyse buyer's behaviour.</li> <li>• Understand Product Life Cycle</li> <li>• Demonstrate pricing and physical distribution</li> <li>• Analyse various Promotion activities.</li> </ul> |
| MIT213 | Lab III - RDBMS      | Global | This course gives hands on experience in relational database management system. | <ul style="list-style-type: none"> <li>• Explain Various SQL Commands.</li> <li>• Write SQL queries to user specifications</li> <li>• Design database schema considering normalization and relationships within database.</li> <li>• Develop PL/SQL Programs.</li> <li>• Develop triggers, procedures and Cursors.</li> </ul>        |
| MIT214 | Lab IV -             | Global | This course gives hands   | <ul style="list-style-type: none"> <li>• Create and Manage content.</li> </ul>   |



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|        | Multimedia Applications |        | on experience in various concepts of multimedia.  | <ul style="list-style-type: none"> <li>• Use the Timeline concepts.</li> <li>• Use Motion Pre-sets.</li> <li>• Create Animations Using Motion Tweens.</li> <li>• Create Movie clips.</li> </ul>  |
| MIT216 | Communication Skills    | Global | This course provides the basic concepts and strategies of communication along with the importance of reading and writing. | <ul style="list-style-type: none"> <li>• Describes communication theory, its type , barriers of communication and the strategies involved.</li> <li>• Develop group communication, speaking skills, group discussion, interview and public speech.</li> <li>• Analyse close reading, comprehension, summary paraphrasing.</li> <li>• Apply translation from Indian language to English and vice-versa.</li> <li>• Build writing skills, documenting report, writing making notes and letter writing</li> </ul> |
| MIT217 | Special Course I-       | Global | This course make the students to identify MS-   | <ul style="list-style-type: none"> <li>• Create, edit, and format a document</li> <li>• Make use of office package for</li> </ul>  |



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|         | Eoffice Lab           |        | Office terminologies, create technical documents, format and edit documents, use simple tools, utilities, and print documents. | documentation, presentation and visualization charts <ul style="list-style-type: none"> <li>• Create tables and reports</li> <li>• Develop various presentations</li> <li>• Design various excel sheets.</li> </ul>  |
| MIT212A | Marketing of Services | Global | This course introduces the students to the application of marketing Concepts in various services.                              | <ul style="list-style-type: none"> <li>• Understand different Services in Marketing.</li> <li>• Analyse various products and Pricing.</li> <li>• Evaluate various service promotions.</li> <li>• Understand People and process in Marketing.</li> <li>• Apply various service strategies.</li> </ul> |
| MIT212B | Financial Management  | Global | This course introduces the concepts of basic business financial management concepts and tools.                                 | <ul style="list-style-type: none"> <li>• Understand the basic concepts of financial management.</li> <li>• Analyse short-term financing decision.</li> <li>• Evaluate long-term investments decision.</li> <li>• Understand long term financing</li> </ul>   |



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|---------|------------------------------------|--------|--|--|
|         |                                    |        |  | <p>decisions.</p> <ul style="list-style-type: none"> <li>• Apply dividend policy decisions.</li> </ul>   |
| MIT212C | Human resource Management          | Global | <p>This course enables the students to understand the Human resource Management and system at various levels in general and in certain specific industries or organizations.</p> | <ul style="list-style-type: none"> <li>• Understand the concept of human resource management and to understand its relevance in organizations.</li> <li>• Develop necessary skill set for application of various human resource issues.</li> <li>• Analyse the strategic issues and strategies required to select and develop manpower resources.</li> <li>• Apply human resource concepts to take correct business decisions.</li> <li>• Analyse different maintenance strategies.</li> </ul> |
| MIT318  | Data Communications and Networking | Global | <p>This course is to provide information about various data communication</p>  | <ul style="list-style-type: none"> <li>• Describe the components of a data communications system</li> <li>• Identify various transmission media and signalling.</li> </ul>   |





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|--------|--------------------------|--------|--|---|
|        |                          |        | techniques like switching and networking concepts which includes layers and their corresponding protocols. | <ul style="list-style-type: none"> <li>Describe error detection and correction techniques. Describe switching techniques.</li> <li>Illustrate various networking devices.</li> <li>Analyse OSI Layer and TCP/IP layer.</li> </ul>   |
| MIT319 | Organisational Behaviour | Global | This Course help the students to develop cognizance of the importance of human behaviour.                  | <ul style="list-style-type: none"> <li>Demonstrate the applicability of the concept of organizational behaviour to understand the behaviour of people in the organization.</li> <li>Demonstrate the applicability of analysing the complexities associated with management of individual behaviour in the organization.</li> <li>Analyse the complexities associated with management of the group behaviour in the organization.</li> <li>Demonstrate how the organizational</li> </ul> |



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|         |             |        |  | <p>behaviour can integrate in understanding the motivation behind behaviour of people in the organization.</p> <ul style="list-style-type: none"> <li>Analyse various conflict management techniques.</li> </ul>   |
| MIT320  | JAVA & J2EE | Global | <p>This course enable the students to build object oriented java programs using the concept of abstraction, encapsulation, exception handling, packages, interfaces, threads and AWT controls. It also imparts the ability to develop projects in java with JDBC connectivity.</p> | <ul style="list-style-type: none"> <li>Understand the concepts of Object-Oriented Programming &amp; Java Programming Constructs.</li> <li>Understand basic concepts of Java such as operators, classes, objects ,inheritance, packages, Enumeration and various keywords.</li> <li>Understand the concept of packages, threads, exceptions.</li> <li>Design Java &amp; Java applet based applications.</li> <li>Design JDBC related applications.</li> </ul> |
| MIT321A | Linux Shell | Global | This course introduces   | <ul style="list-style-type: none"> <li>Know the concept of Shell programming.</li> </ul>   |



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|         | Programming                           |        | the student to the Linux Operating system with particular emphasis on command line tools, utilities and shell scripting.                              | <ul style="list-style-type: none"> <li>• Implement various concepts with files.</li> <li>• Understand Linux Environment.</li> <li>• Recognize the concept of terminal and implement threads concept.</li> <li>• Use Text based screens</li> </ul>                               |
| MIT321B | Web Technology                        | Global | This course gives knowledge in Web development Technologies.  | <ul style="list-style-type: none"> <li>• Explain Various HTML &amp; DHTML tags.</li> <li>• Understand VbScript.</li> <li>• Know JSP concepts</li> <li>• Demonstrate asp.net concepts.</li> <li>• Develop WebPages with database.</li> </ul>                                     |
| MIT321C | Cryptography and Information Security | Global | The course covers the basics of the science of encryption and information security technology. It also provides the knowledge about the various risks | <ul style="list-style-type: none"> <li>• Understands the basic concepts of security</li> <li>• Analyse various cryptographic algorithms while applying practically.</li> <li>• Identify email and IP security.</li> <li>• Compare different web security techniques.</li> </ul> |



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|---------|------------------------|--------|--|--|
|         |                        |        | that networks are faced with in this day and age, focussing on the various vulnerabilities of systems.                             | <ul style="list-style-type: none"> <li>Summarize the concepts of firewall and viruses.</li> </ul>  |
| MIT322A | Advertising Management | Global | This course gives knowledge about the concepts and techniques in Advertising management in Indian context.                         | <ul style="list-style-type: none"> <li>Understand the concepts of advertising.</li> <li>Analyse different advertising Ideas.</li> <li>Know about media planning.</li> <li>Describe about Advertisement.</li> <li>Analyse advertising effectiveness.</li> </ul> |
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|         |                           |        | information for planning decision making and control.  |  |
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| MIT323  | LAB V Programming in JAVA | Global | This course gives hands on experience, practices the concepts of java programming language, and develops solutions for real world problems.                  | <ul style="list-style-type: none"> <li>• Implement Object Oriented programming concept using operators and control Structures..</li> <li>• Design java programs using inheritance, interfaces and packages.</li> <li>• Implement exception handling mechanism and multithreading concept.</li> <li>• Design Java applet based applications.</li> </ul> |



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|        |                                |        |   | <ul style="list-style-type: none"> <li>Design applications with JDBC connectivity.</li> </ul>  |
| MIT324 | LAB VI Web Designing           | Global | This course gives hands on experience in Web development Technologies.  | <ul style="list-style-type: none"> <li>Explain Various HTML tags.</li> <li>Design WebPages with DHTML.</li> <li>Design Web pages using VB script.</li> <li>Develop client side Scripting using VB script.</li> <li>Develop WebPages with ASP.NET</li> </ul>              |
| MIT327 | Special Course II- PHP & MYSQL | Global | This course content plays a vital role in building the programming skill in PHP for designing innovative web pages. | <ul style="list-style-type: none"> <li>Understand basic PHP syntax.</li> <li>Apply MySQL commands.</li> <li>Analyse various error handling and debugging techniques.</li> <li>Design PHP programming with MySQL database.</li> <li>Develop WebPages with PHP.</li> </ul> |



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## 2016-2017

| COURSE CODE | COURSE TITLE                                 | NATURE OF THE COURSE<br>(LOCAL/<br>NATIONAL/<br>REGIONAL/<br>GLOBAL) | COURSE DESCRIPTION  | COURSE OBJECTIVES   |
|-------------|--|--|---|---|
| MIT101      | Mathematical foundation for Computer Science | Global   | This course discuss fundamental concepts and tools in discrete mathematics with emphasis on their applications to computer science. | <ul style="list-style-type: none"> <li>• Understand mathematical logic to solve problems.</li> <li>• Understand sets, relations, functions and discrete structures.</li> <li>• Use logical notations to define and reason about fundamental mathematical concepts such as sets relations and functions.</li> <li>• Formulate problems and solve recurrence relations.</li> <li>• Model and solve real world problems using graphs and trees.</li> </ul> |



**Criterion** : I – Curricular Aspects

**Metric** : 1.1.1 – Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) – M.Sc. (IT & M)

**Year** : 2015 - 2020



|        |                                    |        |  |   |
|--------|------------------------------------|--------|--|---|
| MIT102 | Programming in C                   | Global | This course content plays a vital role in building the basic concepts in computers and the fundamental knowledge in programming. | <ul style="list-style-type: none"> <li>• Understand the basic concepts in Computer &amp; C Programming.</li> <li>• Identify and Apply different construct available for iteration such as 'for', 'while' and 'do-while'.</li> <li>• Understand various storage concepts.</li> <li>• Develop C programs using functions.</li> <li>• Summarize the concepts of Pointers and Files.</li> </ul> |
| MIT103 | Management Principles and Practice | Global | This course helps students in understanding the basic principles underlying the science of managing.                             | <ul style="list-style-type: none"> <li>• Understand the concepts of Planning.</li> <li>• Describe Organization Structure.</li> <li>• Analyse various leadership skills.</li> <li>• Develop communication skills.</li> <li>• Analyse various controlling types.</li> </ul>   |
| MIT104 | Data Structures and Algorithms     | Global | This course helps students to understand the basic data  | <ul style="list-style-type: none"> <li>• Identify the types of data structures like stack, queue and linked list.</li> <li>• Apply tree data structures.</li> </ul>   |





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**Year** : 2015 - 2020



|        |                               |        |   |  |
|--------|-------------------------------|--------|---|--|
|        |                               |        | structures and algorithms by experimental learning.   | <ul style="list-style-type: none"> <li>• Demonstrate different hashing techniques and sorting techniques.</li> <li>• Describe the basic of graph terminologies and the operations involved in graph.</li> <li>• Discuss and implement various dynamic programming techniques.</li> </ul> |
| MIT105 | Visual Programming            | Global | This course introduces the concepts of Visual Programming.  | <ul style="list-style-type: none"> <li>• Understand Visual Basic Development Environment.</li> <li>• Analyse Various Controls.</li> <li>• Understand Menus and Graphics.</li> <li>• Analyse different ADO concepts.</li> <li>• Apply different concepts in .NET</li> </ul>               |
| MIT106 | Lab-I Data Structures using C | Global | This Course helps students to gain knowledge in various data structures and its working principles with | <ul style="list-style-type: none"> <li>• Develop programs using linear data structures and tree traversal.</li> <li>• Implement programs using doubly and circular linked list.</li> <li>• Construct programs using nonlinear data structures.</li> </ul>                                |



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|        |                                       |        |  |  |
|--------|---------------------------------------|--------|--|--|
|        |                                       |        | implementation.  | <ul style="list-style-type: none"> <li>• Apply stack and Queue operations.</li> <li>• Apply various sorting algorithms.</li> </ul>   |
| MIT107 | LAB-II Visual Programming             | Global | This course gives hands on experience in Visual Programming.   | <ul style="list-style-type: none"> <li>• Understand various application types.</li> <li>• Create dynamic window application.</li> <li>• Use asp.net controls in web application.</li> <li>• Build interactive WebPages.</li> <li>• Generate different reports.</li> </ul>  |
| MIT208 | Relational Database Management System | Global | This course introduces database design and creation using DBMS software. It also imparts various concepts in database management system. | <ul style="list-style-type: none"> <li>• Explain the structure and model of the relational database system.</li> <li>• Design multiple tables and use group functions, sub queries.</li> <li>• Design a database based on a data model considering the normalization to a specified level.</li> <li>• Develop E- R model based tables.</li> <li>• Evaluate different PL/SQL blocks.</li> </ul> |



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**Year** : 2015 - 2020



|        |                      |        |  |   |
|--------|----------------------|--------|--|---|
| MIT209 | Business Research    | Global | This course introduces the tools and techniques of Research Methodology.                   | <ul style="list-style-type: none"> <li>• Understand some basic concepts of research and its methodologies.</li> <li>• Identify appropriate research topics.</li> <li>• Analyse different sampling methods.</li> <li>• Apply data collection technique.</li> <li>• write a research report and thesis</li> </ul>   |
| MIT210 | Software Engineering | Global | This course introduces the basic steps involved in Software Development Life Cycle (SDLC). | <ul style="list-style-type: none"> <li>• Understand how to plan a software project.</li> <li>• Analyse the cost estimate and problem complexity using various estimation techniques.</li> <li>• Prepare the SRS, Design document, Project plan of a given software system.</li> <li>• Apply Software design and implementation ideas in S/W project development.</li> <li>• Generate test cases using White Box testing and Black Box testing.</li> </ul> |



**Criterion** : I – Curricular Aspects

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**Year** : 2015 - 2020



|        |                      |        |   |  |
|--------|----------------------|--------|---|--|
| MIT211 | Marketing Management | Global | This course helps students to understand the concepts of marketing management.  | <ul style="list-style-type: none"> <li>• Demonstrate strong conceptual knowledge in the functional area of marketing management.</li> <li>• Analyse buyer's behaviour.</li> <li>• Understand Product Life Cycle</li> <li>• Demonstrate pricing and physical distribution</li> <li>• Analyse various Promotion activities.</li> </ul> |
| MIT213 | LabIII - RDBMS       | Global | This course gives hands on experience in relational database management system. | <ul style="list-style-type: none"> <li>• Explain Various SQL Commands.</li> <li>• Write SQL queries to user specifications</li> <li>• Design database schema considering normalization and relationships within database.</li> <li>• Develop PL/SQL Programs.</li> <li>• Develop triggers, procedures and Cursors.</li> </ul>        |
| MIT214 | Lab IV -             | Global | This course gives hands   | <ul style="list-style-type: none"> <li>• Create and Manage content.</li> </ul>   |





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**Year** : 2015 - 2020



|        |                         |        |   |  |
|--------|-------------------------|--------|---|--|
|        | Multimedia Applications |        | on experience in various concepts of multimedia.  | <ul style="list-style-type: none"> <li>• Use the Timeline concepts.</li> <li>• Use Motion Pre-sets.</li> <li>• Create Animations Using Motion Tweens.</li> <li>• Create Movie clips.</li> </ul>  |
| MIT216 | Communication Skills    | Global | This course provides the basic concepts and strategies of communication along with the importance of reading and writing. | <ul style="list-style-type: none"> <li>• Describes communication theory, its type , barriers of communication and the strategies involved.</li> <li>• Develop group communication, speaking skills, group discussion, interview and public speech.</li> <li>• Analyse close reading, comprehension, summary paraphrasing.</li> <li>• Apply translation from Indian language to English and vice-versa.</li> <li>• Build writing skills, documenting report, writing making notes and letter writing</li> </ul> |
| MIT217 | Special Course I-       | Global | This course make the students to identify MS-   | <ul style="list-style-type: none"> <li>• Create, edit, and format a document</li> <li>• Make use of office package for</li> </ul>  |



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**Metric** : 1.1.1 – Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) – M.Sc. (IT & M)

**Year** : 2015 - 2020



|         |                       |        |  |  |
|---------|-----------------------|--------|--|--|
|         | Eoffice Lab           |        | Office terminologies, create technical documents, format and edit documents, use simple tools, utilities, and print documents. | documentation, presentation and visualization charts <ul style="list-style-type: none"> <li>• Create tables and reports</li> <li>• Develop various presentations</li> <li>• Design various excel sheets.</li> </ul>  |
| MIT212A | Marketing of Services | Global | This course introduces the students to the application of marketing Concepts in various services.                              | <ul style="list-style-type: none"> <li>• Understand different Services in Marketing.</li> <li>• Analyse various products and Pricing.</li> <li>• Evaluate various service promotions.</li> <li>• Understand People and process in Marketing.</li> <li>• Apply various service strategies.</li> </ul> |
| MIT212B | Financial Management  | Global | This course introduces the concepts of basic business financial management concepts and tools.                                 | <ul style="list-style-type: none"> <li>• Understand the basic concepts of financial management.</li> <li>• Analyse short-term financing decision.</li> <li>• Evaluate long-term investments decision.</li> <li>• Understand long term financing</li> </ul>   |



**Criterion** : I – Curricular Aspects

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**Year** : 2015 - 2020



|         |                                    |        |  |  |
|---------|------------------------------------|--------|--|--|
|         |                                    |        |  | <p>decisions.</p> <ul style="list-style-type: none"> <li>• Apply dividend policy decisions.</li> </ul>   |
| MIT212C | Human resource Management          | Global | <p>This course enables the students to understand the Human resource Management and system at various levels in general and in certain specific industries or organizations.</p> | <ul style="list-style-type: none"> <li>• Understand the concept of human resource management and to understand its relevance in organizations.</li> <li>• Develop necessary skill set for application of various human resource issues.</li> <li>• Analyse the strategic issues and strategies required to select and develop manpower resources.</li> <li>• Apply human resource concepts to take correct business decisions.</li> <li>• Analyse different maintenance strategies.</li> </ul> |
| MIT318  | Data Communications and Networking | Global | <p>This course is to provide information about various data communication</p>  | <ul style="list-style-type: none"> <li>• Describe the components of a data communications system</li> <li>• Identify various transmission media and signalling.</li> </ul>   |



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**Year** : 2015 - 2020



|        |                          |        |  |   |
|--------|--------------------------|--------|--|---|
|        |                          |        | techniques like switching and networking concepts which includes layers and their corresponding protocols. | <ul style="list-style-type: none"> <li>Describe error detection and correction techniques. Describe switching techniques.</li> <li>Illustrate various networking devices.</li> <li>Analyse OSI Layer and TCP/IP layer.</li> </ul>   |
| MIT319 | Organisational Behaviour | Global | This Course help the students to develop cognizance of the importance of human behaviour.                  | <ul style="list-style-type: none"> <li>Demonstrate the applicability of the concept of organizational behaviour to understand the behaviour of people in the organization.</li> <li>Demonstrate the applicability of analysing the complexities associated with management of individual behaviour in the organization.</li> <li>Analyse the complexities associated with management of the group behaviour in the organization.</li> <li>Demonstrate how the organizational</li> </ul> |





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**Year** : 2015 - 2020



|         |             |        |  |  |
|---------|-------------|--------|--|--|
|         |             |        |  | <p>behaviour can integrate in understanding the motivation behind behaviour of people in the organization.</p> <ul style="list-style-type: none"> <li>Analyse various conflict management techniques.</li> </ul>   |
| MIT320  | JAVA & J2EE | Global | <p>This course enable the students to build object oriented java programs using the concept of abstraction, encapsulation, exception handling, packages, interfaces, threads and AWT controls. It also imparts the ability to develop projects in java with JDBC connectivity.</p> | <ul style="list-style-type: none"> <li>Understand the concepts of Object-Oriented Programming &amp; Java Programming Constructs.</li> <li>Understand basic concepts of Java such as operators, classes, objects, inheritance, packages, Enumeration and various keywords.</li> <li>Understand the concept of packages, threads, exceptions.</li> <li>Design Java &amp; Java applet based applications.</li> <li>Design JDBC related applications.</li> </ul> |
| MIT321A | Linux Shell | Global | <p>This course introduces</p>  | <ul style="list-style-type: none"> <li>Know the concept of Shell programming.</li> </ul>   |



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**Year** : 2015 - 2020



|         |                                       |        |   |   |
|---------|---------------------------------------|--------|---|---|
|         | Programming                           |        | the student to the Linux Operating system with particular emphasis on command line tools, utilities and shell scripting.                              | <ul style="list-style-type: none"> <li>• Implement various concepts with files.</li> <li>• Understand Linux Environment.</li> <li>• Recognize the concept of terminal and implement threads concept.</li> <li>• Use Text based screens</li> </ul>                               |
| MIT321B | Web Technology                        | Global | This course gives knowledge in Web development Technologies.  | <ul style="list-style-type: none"> <li>• Explain Various HTML &amp; DHTML tags.</li> <li>• Understand VbScript.</li> <li>• Know JSP concepts</li> <li>• Demonstrate asp.net concepts.</li> <li>• Develop WebPages with database.</li> </ul>                                     |
| MIT321C | Cryptography and Information Security | Global | The course covers the basics of the science of encryption and information security technology. It also provides the knowledge about the various risks | <ul style="list-style-type: none"> <li>• Understands the basic concepts of security</li> <li>• Analyse various cryptographic algorithms while applying practically.</li> <li>• Identify email and IP security.</li> <li>• Compare different web security techniques.</li> </ul> |



**Criterion** : I – Curricular Aspects

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**Year** : 2015 - 2020



|         |                        |        |  |  |
|---------|------------------------|--------|--|--|
|         |                        |        | that networks are faced with in this day and age, focussing on the various vulnerabilities of systems.                             | <ul style="list-style-type: none"> <li>Summarize the concepts of firewall and viruses.</li> </ul>  |
| MIT322A | Advertising Management | Global | This course gives knowledge about the concepts and techniques in Advertising management in Indian context.                         | <ul style="list-style-type: none"> <li>Understand the concepts of advertising.</li> <li>Analyse different advertising Ideas.</li> <li>Know about media planning.</li> <li>Describe about Advertisement.</li> <li>Analyse advertising effectiveness.</li> </ul> |
| MIT322B | Management Accounting  | Global | This course targets to develop an insight into principles and techniques of accounting and utilization of financial and accounting | <ul style="list-style-type: none"> <li>Understand the concepts of accounting.</li> <li>Analyse different final accounts.</li> <li>Know about cost accounting.</li> <li>Describe about marginal costing.</li> <li>Analyse budgetary control.</li> </ul>         |



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|         |                           |        |  |  |
|---------|---------------------------|--------|--|--|
|         |                           |        | information for planning decision making and control.  |  |
| MIT322C | Industrial Relations      | Global | This course introduces the fundamentals of industrial relations. It establishes industrial democracy based on the participation of labour in the management. | <ul style="list-style-type: none"> <li>• Understand the concepts of industrial relations.</li> <li>• Describe trade unions.</li> <li>• Analyse worker's participation in Management.</li> <li>• Examine Industrial Disputes.</li> <li>• Analyse settlement machinery.</li> </ul>   |
| MIT323  | LAB V Programming in JAVA | Global | This course gives hands on experience, practices the concepts of java programming language, and develops solutions for real world problems.                  | <ul style="list-style-type: none"> <li>• Implement Object Oriented programming concept using operators and control Structures..</li> <li>• Design java programs using inheritance, interfaces and packages.</li> <li>• Implement exception handling mechanism and multithreading concept.</li> <li>• Design Java applet based applications.</li> </ul> |





**Criterion** : I – Curricular Aspects

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|        |                                |        |   |  |
|--------|--------------------------------|--------|---|--|
|        |                                |        |   | <ul style="list-style-type: none"> <li>Design applications with JDBC connectivity.</li> </ul>  |
| MIT324 | LAB VI Web Designing           | Global | This course gives hands on experience in Web development Technologies.  | <ul style="list-style-type: none"> <li>Explain Various HTML tags.</li> <li>Design WebPages with DHTML.</li> <li>Design Web pages using VB script.</li> <li>Develop client side Scripting using VB script.</li> <li>Develop WebPages with ASP.NET</li> </ul>              |
| MIT327 | Special Course II- PHP & MYSQL | Global | This course content plays a vital role in building the programming skill in PHP for designing innovative web pages. | <ul style="list-style-type: none"> <li>Understand basic PHP syntax.</li> <li>Apply MySQL commands.</li> <li>Analyse various error handling and debugging techniques.</li> <li>Design PHP programming with MySQL database.</li> <li>Develop WebPages with PHP.</li> </ul> |



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**Metric** : 1.1.1 – Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) – M.Sc. (IT & M)

**Year** : 2015 - 2020



## 2015-2016

| COURSE CODE | COURSE TITLE                                 | NATURE OF THE COURSE<br>(LOCAL/<br>NATIONAL/<br>REGIONAL/<br>GLOBAL) | COURSE DESCRIPTION  | COURSE OBJECTIVES   |
|-------------|--|--|---|---|
| MIT101      | Mathematical foundation for Computer Science | Global   | This course discuss fundamental concepts and tools in discrete mathematics with emphasis on their applications to computer science. | <ul style="list-style-type: none"> <li>• Understand mathematical logic to solve problems.</li> <li>• Understand sets, relations, functions and discrete structures.</li> <li>• Use logical notations to define and reason about fundamental mathematical concepts such as sets relations and functions.</li> <li>• Formulate problems and solve recurrence relations.</li> <li>• Model and solve real world problems using graphs and trees.</li> </ul> |



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| MIT102 | Programming in C                   | Global | This course content plays a vital role in building the basic concepts in computers and the fundamental knowledge in programming. | <ul style="list-style-type: none"> <li>• Understand the basic concepts in Computer &amp; C Programming.</li> <li>• Identify and Apply different construct available for iteration such as 'for', 'while' and 'do-while'.</li> <li>• Understand various storage concepts.</li> <li>• Develop C programs using functions.</li> <li>• Summarize the concepts of Pointers and Files.</li> </ul> |
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|        |                               |        |   |  |
|--------|-------------------------------|--------|---|--|
|        |                               |        | structures and algorithms by experimental learning.   | <ul style="list-style-type: none"> <li>• Demonstrate different hashing techniques and sorting techniques.</li> <li>• Describe the basic of graph terminologies and the operations involved in graph.</li> <li>• Discuss and implement various dynamic programming techniques.</li> </ul> |
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| MIT106 | Lab-I Data Structures using C | Global | This Course helps students to gain knowledge in various data structures and its working principles with | <ul style="list-style-type: none"> <li>• Develop programs using linear data structures and tree traversal.</li> <li>• Implement programs using doubly and circular linked list.</li> <li>• Construct programs using nonlinear data structures.</li> </ul>                                |





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|        |                                       |        |  |  |
|--------|---------------------------------------|--------|--|--|
|        |                                       |        | implementation.  | <ul style="list-style-type: none"> <li>• Apply stack and Queue operations.</li> <li>• Apply various sorting algorithms.</li> </ul>   |
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|        |                      |        |  |   |
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| MIT214 | Lab IV -             | Global | This course gives hands   | <ul style="list-style-type: none"> <li>• Create and Manage content.</li> </ul>   |



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**Year** : 2015 - 2020



|        |                         |        |   |  |
|--------|-------------------------|--------|---|--|
|        | Multimedia Applications |        | on experience in various concepts of multimedia.  | <ul style="list-style-type: none"> <li>• Use the Timeline concepts.</li> <li>• Use Motion Pre-sets.</li> <li>• Create Animations Using Motion Tweens.</li> <li>• Create Movie clips.</li> </ul>  |
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**Year** : 2015 - 2020



|         |                       |        |  |  |
|---------|-----------------------|--------|--|--|
|         | E office Lab          |        | Office terminologies, create technical documents, format and edit documents, use simple tools, utilities, and print documents. | documentation, presentation and visualization charts <ul style="list-style-type: none"> <li>• Create tables and reports</li> <li>• Develop various presentations</li> <li>• Design various excel sheets.</li> </ul>  |
| MIT212A | Marketing of Services | Global | This course introduces the students to the application of marketing Concepts in various services.                              | <ul style="list-style-type: none"> <li>• Understand different Services in Marketing.</li> <li>• Analyse various products and Pricing.</li> <li>• Evaluate various service promotions.</li> <li>• Understand People and process in Marketing.</li> <li>• Apply various service strategies.</li> </ul> |
| MIT212B | Financial Management  | Global | This course introduces the concepts of basic business financial management concepts and tools.                                 | <ul style="list-style-type: none"> <li>• Understand the basic concepts of financial management.</li> <li>• Analyse short-term financing decision.</li> <li>• Evaluate long-term investments decision.</li> <li>• Understand long term financing</li> </ul>   |



**Criterion** : I – Curricular Aspects

**Metric** : 1.1.1 – Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) – M.Sc. (IT & M)

**Year** : 2015 - 2020



|         |                                    |        |  |  |
|---------|------------------------------------|--------|--|--|
|         |                                    |        |  | <p>decisions.</p> <ul style="list-style-type: none"> <li>• Apply dividend policy decisions.</li> </ul>   |
| MIT212C | Human resource Management          | Global | <p>This course enables the students to understand the Human resource Management and system at various levels in general and in certain specific industries or organizations.</p> | <ul style="list-style-type: none"> <li>• Understand the concept of human resource management and to understand its relevance in organizations.</li> <li>• Develop necessary skill set for application of various human resource issues.</li> <li>• Analyse the strategic issues and strategies required to select and develop manpower resources.</li> <li>• Apply human resource concepts to take correct business decisions.</li> <li>• Analyse different maintenance strategies.</li> </ul> |
| MIT318  | Data Communications and Networking | Global | <p>This course is to provide information about various data communication</p>  | <ul style="list-style-type: none"> <li>• Describe the components of a data communications system</li> <li>• Identify various transmission media and signalling.</li> </ul>   |



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**Year** : 2015 - 2020



|        |                          |        |  |   |
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|        |                          |        | techniques like switching and networking concepts which includes layers and their corresponding protocols. | <ul style="list-style-type: none"> <li>Describe error detection and correction techniques. Describe switching techniques.</li> <li>Illustrate various networking devices.</li> <li>Analyse OSI Layer and TCP/IP layer.</li> </ul>   |
| MIT319 | Organisational Behaviour | Global | This Course help the students to develop cognizance of the importance of human behaviour.                  | <ul style="list-style-type: none"> <li>Demonstrate the applicability of the concept of organizational behaviour to understand the behaviour of people in the organization.</li> <li>Demonstrate the applicability of analysing the complexities associated with management of individual behaviour in the organization.</li> <li>Analyse the complexities associated with management of the group behaviour in the organization.</li> <li>Demonstrate how the organizational</li> </ul> |



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|         |             |        |  |  |
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|         |             |        |  | <p>behaviour can integrate in understanding the motivation behind behaviour of people in the organization.</p> <ul style="list-style-type: none"> <li>Analyse various conflict management techniques.</li> </ul>   |
| MIT320  | JAVA & J2EE | Global | <p>This course enable the students to build object oriented java programs using the concept of abstraction, encapsulation, exception handling, packages, interfaces, threads and AWT controls. It also imparts the ability to develop projects in java with JDBC connectivity.</p> | <ul style="list-style-type: none"> <li>Understand the concepts of Object-Oriented Programming &amp; Java Programming Constructs.</li> <li>Understand basic concepts of Java such as operators, classes, objects, inheritance, packages, Enumeration and various keywords.</li> <li>Understand the concept of packages, threads, exceptions.</li> <li>Design Java &amp; Java applet based applications.</li> <li>Design JDBC related applications.</li> </ul> |
| MIT321A | Linux Shell | Global | <p>This course introduces</p>  | <ul style="list-style-type: none"> <li>Know the concept of Shell programming.</li> </ul>   |





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|         |                                       |        |   |   |
|---------|---------------------------------------|--------|---|---|
|         | Programming                           |        | the student to the Linux Operating system with particular emphasis on command line tools, utilities and shell scripting.                              | <ul style="list-style-type: none"> <li>• Implement various concepts with files.</li> <li>• Understand Linux Environment.</li> <li>• Recognize the concept of terminal and implement threads concept.</li> <li>• Use Text based screens</li> </ul>                               |
| MIT321B | Web Technology                        | Global | This course gives knowledge in Web development Technologies.  | <ul style="list-style-type: none"> <li>• Explain Various HTML &amp; DHTML tags.</li> <li>• Understand VbScript.</li> <li>• Know JSP concepts</li> <li>• Demonstrate asp.net concepts.</li> <li>• Develop WebPages with database.</li> </ul>                                     |
| MIT321C | Cryptography and Information Security | Global | The course covers the basics of the science of encryption and information security technology. It also provides the knowledge about the various risks | <ul style="list-style-type: none"> <li>• Understands the basic concepts of security</li> <li>• Analyse various cryptographic algorithms while applying practically.</li> <li>• Identify email and IP security.</li> <li>• Compare different web security techniques.</li> </ul> |



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|         |                        |        |  |  |
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|         |                        |        | that networks are faced with in this day and age, focussing on the various vulnerabilities of systems.                             | <ul style="list-style-type: none"> <li>Summarize the concepts of firewall and viruses.</li> </ul>  |
| MIT322A | Advertising Management | Global | This course gives knowledge about the concepts and techniques in Advertising management in Indian context.                         | <ul style="list-style-type: none"> <li>Understand the concepts of advertising.</li> <li>Analyse different advertising Ideas.</li> <li>Know about media planning.</li> <li>Describe about Advertisement.</li> <li>Analyse advertising effectiveness.</li> </ul> |
| MIT322B | Management Accounting  | Global | This course targets to develop an insight into principles and techniques of accounting and utilization of financial and accounting | <ul style="list-style-type: none"> <li>Understand the concepts of accounting.</li> <li>Analyse different final accounts.</li> <li>Know about cost accounting.</li> <li>Describe about marginal costing.</li> <li>Analyse budgetary control.</li> </ul>         |



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|         |                           |        |  |  |
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|         |                           |        | information for planning decision making and control.  |  |
| MIT322C | Industrial Relations      | Global | This course introduces the fundamentals of industrial relations. It establishes industrial democracy based on the participation of labour in the management. | <ul style="list-style-type: none"> <li>• Understand the concepts of industrial relations.</li> <li>• Describe trade unions.</li> <li>• Analyse worker's participation in Management.</li> <li>• Examine Industrial Disputes.</li> <li>• Analyse settlement machinery.</li> </ul>                     |
| MIT323  | LAB V Programming in JAVA | Global | This course gives hands on experience, practices the concepts of java programming language, and develops solutions for real world problems.                  | <ul style="list-style-type: none"> <li>• Implement Object Oriented programming concept using operators and control Structures..</li> <li>• Design java programs using inheritance, interfaces and packages.</li> <li>• Implement exception handling mechanism and multithreading concept.</li> </ul> |



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|--------|--------------------------------|--------|---|--|
|        |                                |        |   | <ul style="list-style-type: none"> <li>• Design Java applet based applications.</li> <li>• Design applications with JDBC connectivity.</li> </ul>  |
| MIT324 | LAB VI Web Designing           | Global | This course gives hands on experience in Web development Technologies.  | <ul style="list-style-type: none"> <li>• Explain Various HTML tags.</li> <li>• Design WebPages with DHTML.</li> <li>• Design Web pages using VB script.</li> <li>• Develop client side Scripting using VB script.</li> <li>• Develop WebPages with ASP.NET</li> </ul>              |
| MIT327 | Special Course II- PHP & MYSQL | Global | This course content plays a vital role in building the programming skill in PHP for designing innovative web pages. | <ul style="list-style-type: none"> <li>• Understand basic PHP syntax.</li> <li>• Apply MySQL commands.</li> <li>• Analyse various error handling and debugging techniques.</li> <li>• Design PHP programming with MySQL database.</li> <li>• Develop WebPages with PHP.</li> </ul> |