**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477**
**DEPARTMENT OF MATHEMATICS**

# COURSE OUTCOMES

# (AY: 2020 – 24)

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE

**BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571438**

## DEPARTMENT OF MATHEMATICS

## COURSE OUTCOMES (AY: 2023 – 24)

**Course Title: Mathematics-I for Mechanical Engineering stream**

**Course Code: BMATM101 COURSE CODE:C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **BMATM101.1** | Apply the knowledge of calculus to solve problems related to polar curves. |
| **BMATM101.2** | Analyze the concept of partial differentiation to compute rate of change of multivariate functions. |
| **BMATM101.3** | Analyze the solution of linear and nonlinear ordinary differential equations and higher order differential equations related to Engineering applications |
| **BMATM101.4** | Make use of matrix theory for solving the system of linear equations and compute eigenvalues and eigenvectors. |
| **BMATM101.5** | Solving complex Engineering Problems using PYTHON |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BMATM101.1** | 3 | | | | | | | | | | | |
| **BMATM101.2** | | 3 | | | | | | | | | | |
| **BMATM101.3** | | 3 | | | | | | | | | | |
| **BMATM101.4** | 3 | | | | | | | | | | | |
| **BMATM101.5** | | | | | 3 | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | **3** | | | | | | | |

| Faculty Signature | | | | |
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**Approval of the COs and their mapping with POs on / /2023**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE

**BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571438**

## DEPARTMENT OF MATHEMATICS

## COURSE OUTCOMES (AY: 2023 – 24)

**Course Title: Mathematics-I for Civil Engineering stream** **Course Code: BMATC101 COURSE CODE:C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **BMATC101.1** | Apply the knowledge of calculus to solve problems related to polar curves. |
| **BMATC101.2** | Analyze the concept of partial differentiation to compute rate of change of multivariate functions. |
| **BMATC101.3** | Analyze the solution of linear and nonlinear ordinary differential equations and higher order differential equations related to Engineering applications |
| **BMATC101.4** | Make use of matrix theory for solving the system of linear equations and compute eigenvalues and eigenvectors. |
| **BMATC101.5** | Solving complex Engineering Problems using PYTHON |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BMATC101.1** | 3 | | | | | | | | | | | |
| **BMATC101.2** | | 3 | | | | | | | | | | |
| **BMATC101.3** | | 3 | | | | | | | | | | |
| **BMATC101.4** | 3 | | | | | | | | | | | |
| **BMATC101.5** | | | | | 3 | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | **3** | | | | | | | |

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**Approval of the COs and their mapping with POs on /04/2023**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE

**BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571438**

## DEPARTMENT OF MATHEMATICS

## COURSE OUTCOMES (AY: 2023 – 24)

**Course Title: Mathematics-I for Electrical & Electronics Engineering Stream** **Course Code: BMATE101 COURSE CODE:C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **BMATE101.1** | Apply the knowledge of calculus to solve problems related to polar curves and learn the notion of partial differentiation to compute rate of change of multivariate functions |
| **BMATE101.2** | Analyze the solution of linear and nonlinear ordinary differential equations |
| **BMATE101.3** | Apply the concept of change of order of integration and variables to evaluate multiple integrals and their usage in computing area and volume. |
| **BMATE101.4** | Make use of matrix theory for solving the system of linear equations and compute eigenvalues and eigenvectors |
| **BMATE101.5** | Solving complex Engineering Problems using PYTHON |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
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| **BMATE101.1** | 3 | | | | | | | | | | | |
| **BMATE101.2** | | 3 | | | | | | | | | | |
| **BMATE101.3** | 3 | | | | | | | | | | | |
| **BMATE101.4** | 3 | | | | | | | | | | | |
| **BMATE101.5** | | | | | 3 | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | **3** | | | | | | | |

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**Approval of the COs and their mapping with POs on / /2023**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE

**BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571438**

## DEPARTMENT OF MATHEMATICS

## COURSE OUTCOMES (AY: 2023 – 24)

**Course Title: Mathematics-I for Computer Science and Engineering stream** **Course Code: BMATS101 COURSE CODE:C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **BMATS101.1** | Apply the knowledge of calculus to solve problems related to polar curves and learn the notion of partial differentiation to compute rate of change of multivariate functions |
| **BMATS101.2** | Analyze the solution of linear and nonlinear ordinary differential equations |
| **BMATS101.3** | Apply the knowledge of modular arithmetic to computer algorithms |
| **BMATS101.4** | Make use of matrix theory for solving the system of linear equations and compute eigenvalues and eigenvectors |
| **BMATS101.5** | Solving complex Engineering Problems using PYTHON |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
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| **BMATS101.1** | 3 | | | | | | | | | | | |
| **BMATS101.2** | | 3 | | | | | | | | | | |
| **BMATS101.3** | 3 | | | | | | | | | | | |
| **BMATS101.4** | 3 | | | | | | | | | | | |
| **BMATS101.5** | | | | | 3 | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | **3** | | | | | | | |

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**Approval of the COs and their mapping with POs on / /2023**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

**SUBJECT: MATHEMATICS – 1 FOR COMPUTER SCIENCE STREAM**

**SUBJECT CODE : BMATS101**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **BMATS101.1** | Apply the knowledge of calculus and Linear algebra to solve problems related to Engineering applications |
| **BMATS101.2** | Analyze the concept of partial differentiation to determine rates of change of multivariate functions. |
| **BMATS101.3** | Solve analytically linear and nonlinear differential equation related to Engineering applications |
| **BMATS101.4** | Apply the knowledge of Modular arithmetic to computer algorithms |
| **BMATS101.5** | Solving complex Engineering problem using python |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BMATS101.1** | 3 | | | | | | | | | | | |
| **BMATS101.2** | | 3 | | | | | | | | | | |
| **BMATS101.3** | 3 | | | | | | | | | | | |
| **BMATS101.4** | 3 | | | | | | | | | | | |
| **BMATS101.5** | 3 | | | | 3 | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | **3** | | | | | | | |

| Faculty Signature | | | | |
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**Approval of the COs and their mapping with POs on __/__/_____**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

**SUBJECT: MATHEMATICS–I FOR ELECTRICAL AND ELECTRONICS ENGINEERING STREAM**

**SUBJECT CODE : BMATE101**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **BMATE101.1** | Apply the knowledge of calculus and Linear algebra to solve problems related to Engineering applications |
| **BMATE101.2** | Analyze the concept of partial differentiation to determine rates of change of multivariate functions. |
| **BMATE101.3** | Solve analytically linear and nonlinear differential equation related to Engineering applications |
| **BMATE101.4** | Apply the concept of change the order of integration and variables to evaluate Multiple integrals and their usage in computing area and volume. |
| **BMATE101.5** | Solving complex Engineering problem using python |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
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| **BMATE101.1** | 3 | | | | | | | | | | | |
| **BMATE101.2** | | 3 | | | | | | | | | | |
| **BMATE101.3** | 3 | | | | | | | | | | | |
| **BMATE101.4** | 3 | | | | | | | | | | | |
| **BMATE101.5** | 3 | | | | 3 | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | **3** | | | | | | | |

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**Approval of the COs and their mapping with POs on __/__/_____**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

## SUBJECT: MATHEMATICS – I FOR MECHANICAL ENGINEERING STREAM

**SUBJECT CODE : BMATM101**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **BMATM101.1** | Apply the knowledge of calculus and Linear algebra to solve problems related to Engineering applications |
| **BMATM101.2** | Analyze the concept of partial differentiation to calculate rates of change of multivariate functions. |
| **BMATM101.3** | Solve analytically linear and nonlinear differential equation related to Engineering applications |
| **BMATM101.4** | Illustrate various models through higher order differential equations. |
| **BMATM101.5** | Solving complex Engineering problem using python |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
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| **BMATM101.1** | 3 | | | | | | | | | | | |
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| **BMATM101.3** | 3 | | | | | | | | | | | |
| **BMATM101.4** | 3 | | | | | | | | | | | |
| **BMATM101.5** | 3 | | | | 3 | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | **3** | | | | | | | |

| Faculty Signature | | | | |
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**Approval of the COs and their mapping with POs on __/__/_____**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

**SUBJECT: MATHEMATICS – I FOR CIVIL ENGINEERING STREAM**

**SUBJECT CODE : BMATC101**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **BMATC101.1** | Apply the knowledge of calculus and Linear algebra to solve problems related to Engineering applications |
| **BMATC101.2** | Analyze the concept of partial differentiation to calculate rates of change of multivariate functions. |
| **BMATC101.3** | Solve analytically linear and nonlinear differential equation related to Engineering applications |
| **BMATC101.4** | Illustrate various models through higher order differential equations. |
| **BMATC101.5** | Solving complex Engineering problem using python |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
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| **BMATC101.1** | | 3 | | | | | | | | | | |
| **BMATC101.2** | 3 | | | | | | | | | | | |
| **BMATC101.3** | 3 | | | | | | | | | | | |
| **BMATC101.4** | 3 | | | | 3 | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | **3** | | | | | | | |

| Faculty Signature | | | | |
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**Approval of the COs and their mapping with POs on __/__/_____**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

**Course Title: Mathematics-II for Mechanical Engineering stream**

**Course Code: BMATM201 Course Code: C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| BMATM201.1 | Apply the knowledge of multiple integrals to compute area and volume. |
| BMATM201.2 | Illustrate the applications of vector calculus refer to solenoidal, irrotational vectors, line integral and surface integral. |
| BMATM201.3 | Demonstrate partial differential equations and their solutions for physical interpretations. |
| BMATM201.4 | Apply the knowledge of numerical methods in solving physical and engineering phenomena. |
| BMATM201.5 | Using modern mathematical tools, prediction and modeling the complex engineering problems by MatLab or Python. |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BMATM201.1 | 3 | | | | | | | | | | | |
| BMATM201.2 | | 3 | | | | | | | | | | |
| BMATM201.3 | | 3 | | | | | | | | | | |
| BMATM201.4 | 3 | | | | | | | | | | | |
| BMATM201.5 | | | | | 3 | | | | | | | |
| Average of CO'S | 3 | 3 | | | 3 | | | | | | | |

| Faculty Signature | | | | |
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**Approval of the COs and their mapping with POs on /0 /2023**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

**Course Title: Mathematics-II for Civil Engineering Stream**

**Course Code: BMATC201 Course Code: C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| BMATC201.1 | Apply the knowledge of multiple integrals to compute area and volume |
| BMATC201.2 | Illustrate the applications of vector calculus refer to solenoidal , irrotational vectors, line integral and surface integral. |
| BMATC201.3 | Demonstrate partial differential equations and their solutions for physical interpretations. |
| BMATC201.4 | Apply the knowledge of numerical methods in solving physical and engineering phenomena.. |
| BMATC201.5 | Using modern mathematical tools, prediction and modeling the complex engineering problems by MatLab or Python |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BMATC201.1 | 3 | | | | | | | | | | | |
| BMATC201.2 | | 3 | | | | | | | | | | |
| BMATC201.3 | | 3 | | | | | | | | | | |
| BMATC201.4 | 3 | | | | | | | | | | | |
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| Average of CO'S | 3 | 3 | | | 3 | | | | | | | |

| Faculty Signature | | | | |
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**Approval of the COs and their mapping with POs on /0 /2023**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

**Course Title: Mathematics-II for Electrical & Electronics Engineering Stream** **Course Code: BMATE201 Course Code: C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| BMATE201.1 | Illustrate the applications of vector calculus refer to solenoidal, irrotational vectors, line integral and surface integral. |
| BMATE201.2 | Demonstrate the idea of Linear dependence and independence of sets in the vector space and linear transformation. |
| BMATE201.3 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| BMATE201.4 | Apply the knowledge of numerical methods in solving physical and engineering phenomena. |
| BMATE201.5 | Using modern mathematical tools, prediction and modeling the complex engineering problems by MatLab or Python. |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BMATE201.1 | 3 | | | | | | | | | | | |
| BMATE201.2 | | 3 | | | | | | | | | | |
| BMATE201.3 | | 3 | | | | | | | | | | |
| BMATE201.4 | 3 | | | | | | | | | | | |
| BMATE201.5 | | | | | 3 | | | | | | | |
| Average of CO'S | 3 | 3 | | | 3 | | | | | | | |

| Faculty Signature | | | | |
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**Approval of the COs and their mapping with POs on /0 /2023**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

**Course Title: Mathematics-II for Computer Science and Engineering stream**

**Course Code: BMATS201 Course Code: C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| BMATS201.1 | Apply the concept of change of order of integration and variables to evaluate multiple integrals and their usage in computing area and volume. |
| BMATS201.2 | Illustrate the applications of vector calculus refer to solenoidal, irrotational vectors, Orthogonal , curvilinear coordinates. |
| BMATS201.3 | Demonstrate the idea of Linear dependence and independence of sets in the vector space and linear transformation |
| BMATS201.4 | Apply the knowledge of numerical methods in analysing the discrete data and solving the physical and engineering problems. |
| BMATS201.5 | Using modern mathematical tools, prediction and modeling the complex engineering problems by MatLab or Python. |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
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| BMATS201.1 | 3 | | | | | | | | | | | |
| BMATS201.2 | | 3 | | | | | | | | | | |
| BMATS201.3 | | 3 | | | | | | | | | | |
| BMATS201.4 | 3 | | | | | | | | | | | |
| BMATS201.5 | | | | | 3 | | | | | | | |
| Average of CO'S | 3 | 3 | | | 3 | | | | | | | |

| Faculty Signature | | | | |
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**Approval of the COs and their mapping with POs on /0 /2023**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**COURSE OUTCOMES (AY: 2022– 23)**

# DEPARTMENT OF MATHEMATICS

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**(2021-22)**

# DEPARTMENT OF MATHEMATICS

**SUBJECT:CALCULUS AND DIFFRENTIAL EQUATIONS** **SUBJECT CODE:21MAT11** **COURSE CODE: C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| **21MAT11.1** | Apply the knowledge of calculus to solve problems related to polar curves and its applications in determining the bentness of a curve. |
| **21MAT11.2** | Analyze the concept of partial differentiation to calculate the rates of change of multivariate functions and solve problems related to composite functions and Jacobians. |
| **21MAT11.3** | Solve first-order linear/nonlinear ordinary differential equations analytically using standard methods |
| **21MAT11.4** | Demonstrate various models through higher order differential equations and solve such linear ordinary differential equations. |
| **21MAT11.5** | Test the consistency of a system of linear equations and to solve them by direct and iterative methods. |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
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| 21MAT11.1 | 3 | - | | | | | | | | | | |
| 21MAT11.2 | - | 3 | | | | | | | | | | |
| 21MAT11.3 | 3 | - | | | | | | | | | | |
| 21MAT11.4 | 3 | - | | | | | | | | | | |
| 21MAT11.5 | 2 | 2 | | | | | | | | | | |
| **Average of CO'S** | **2.75** | **2.5** | | | | | | | | | | |
| **Faculty Signature** | | | | | | | | | | | | |
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**Approval of the COs and their mapping with POs on 13/11/2021**

| Institute Level | | |
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| Criteria 8 Main Coordinator | NBA Convener | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, NAGUVANAHALLI POST, SRIRANGAPATNA TALUK**
**MANDYA-571477, KARNATAKA**
**(2021-22)**

# DEPARTMENT OF MATHEMATICS

**SUBJECT: ADVANCED CALCULUS & NUMERICAL METHODS** **SUBJECT CODE:21MAT21** **COURSE CODE: C**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| 21MAT21.1 | Solve multiple integrals problems and their usage in computing the Area,Volumes by using concept of change the order of integration. |
| 21MAT22.2 | Illustrate the applications of multivariate calculus to understand the solenoidal , irrotational vectors and also exhibit the inter dependence of line, surface and volume integrals. |
| 21MAT23.3 | Analyze a variety of partial differential equations and solution by exact methods/method of separation of variables. |
| 21MAT24.4 | Apply the knowledge of numerical methods in the modelling of various physical and engineering phenomena. |
| 21MAT25.5 | Solve first order ordinary differential equations arising in engineering problems. |

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 |
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| 21MAT21.1 | 3 | - | | | | | | | | | | |
| 21MAT22.2 | 3 | - | | | | | | | | | | |
| 21MAT23.3 | - | 3 | | | | | | | | | | |
| 21MAT24.4 | 3 | - | | | | | | | | | | |
| 21MAT25.5 | 3 | - | | | | | | | | | | |
| **Average of CO'S** | **3** | **3** | | | | | | | | | | |
| **Faculty Signature** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

**Approval of the COs and their mapping with POs on 02/05/2022**

| Institute Level | | |
|---|---|---|
| | | |
| Criteria 8 Main Coordinator | NBA Convener | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
## BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477
## DEPARTMENT OF MATHEMATICS
### COURSE OUTCOME (2021-22)

**Subject:-TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUE**

**Subject Code:-18MAT31** **Course Code:-C201**

**Course Outcomes:-At the end of the course the student will be able to**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C201.1 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| C201.2 | Employ Fourier series to study the behavior of periodic functions and their applications in system communications, digital signal processing and field theory. |
| C201.3 | Analyze the concept of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems. |
| C201.4 | To solve the first and second order ordinary differential equations arising in engineering problems make use of single step and multistep numerical methods. |
| C201.5 | Examine the extremals of functional using calculus of variations arising in dynamics of rigid bodies and vibrational analysis problems |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C201.1 | 3 | | | | | | | | | | | |
| C201.2 | 3 | | | | | | | | | | | |
| C201.3 | | 3 | | | | | | | | | | |
| C201.4 | 3 | | | | | | | | | | | |
| C201.5 | | 3 | | | | | | | | | | |
| C201 | 3 | 3 | | | | | | | | | | |

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|---|---|---|
| Ajay C K / Ajaykumar M<br>Faculty in charge | | Nataraj K<br>Course Coordinator |
| Ajaykumar M<br>NBA coordinator | Indumathi R S<br>Criteria 3 Coordinator | Dr. Srinivasa A H<br>HOD |
| Convener | | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477**
**DEPARTMENT OF MATHEMATICS**

**Course Outcome (2021-22)**

**Subject:- COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHOD**

**Subject Code:- 18MAT41** **Course Code:-C213**

**Course Outcomes: - At the end of the course the student will be able to**

| CO'S | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C213.1 | Construct analytic functions and solve real and complex integral problems. |
| C213.2 | Analyze the probability models in various engineering fields. |
| C213.3 | Apply the method of least squares to fit a linear curve, quadratic curve and geometric curve for a statistical data. |
| C213.4 | Apply the concept of correlation and regression to fit suitable mathematical models for the statistical data. |
| C213.5 | Analyze joint probability distribution and estimate the test of hypothesis. |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C213.1 | 3 | | | | | | | | | | | |
| C213.2 | | 3 | | | | | | | | | | |
| C213.3 | 3 | | | | | | | | | | | |
| C213.4 | 3 | | | | | | | | | | | |
| C213.5 | | 3 | | | | | | | | | | |
| C213 | 3 | 3 | | | | | | | | | | |

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| | | |
| Dr. A H Srinivasa Seema S<br>Faculty | | Nataraj K<br>Course Coordinator |
| | | |
| Ajaykumar M<br>NBA coordinator | Criteria 3 Coordinator | Dr. Srinivasa A.H<br>HOD |
| | | |
| Convener | | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
## BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477
## DEPARTMENT OF MATHEMATICS
### COURSE OUTCOME (2022-23)

**Subject:-TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUE**

**Subject Code:-21MAT31** **Course Code:-C201**

**Course Outcomes:-At the end of the course the student will be able to**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C201.1 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| C201.2 | Employ Fourier series to study the behavior of periodic functions and their applications in system communications, digital signal processing and field theory. |
| C201.3 | Analyze the concept of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems. |
| C201.4 | To solve the first and second order ordinary differential equations arising in engineering problems make use of single step and multistep numerical methods. |
| C201.5 | Examine the extremals of functional using calculus of variations arising in dynamics of rigid bodies and vibrational analysis problems |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C201.1 | 3 | | | | | | | | | | | |
| C201.2 | 3 | | | | | | | | | | | |
| C201.3 | | 3 | | | | | | | | | | |
| C201.4 | 3 | | | | | | | | | | | |
| C201.5 | | 3 | | | | | | | | | | |
| C201 | 3 | 3 | | | | | | | | | | |

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|---|---|---|
| | | |
| Dr. Purushothama S<br>Bhanupriya B K | | Nataraj K |
| Faculty in charge | | Course Coordinator |
| | | |
| Ajaykumar M<br>NBA coordinator | Indumathi R S<br>Criteria 3 Coordinator | Dr. Srinivasa A H<br>HOD |
| | | |
| Convener | | Principal |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477**
**DEPARTMENT OF MATHEMATICS**

**Course Outcome (2022-23)**

**Subject:- COMPLEX ANALYSIS, PROBABILITY AND LINEAR PROGRAMMING**

**Subject Code:-21MATME41** **Course Code:-C213**

**Course Outcomes: - At the end of the course the student will be able to**

| CO'S | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C213.1 | Use the concepts of an analytic function and complex potentials to solve the problems arising in fluid flow. |
| C213.2 | Utilize conformal transformation and complex integral arising in aerofoil theory, fluid flow visualisation and image processing. |
| C213.3 | Apply discrete and continuous probability distributions in analyzing the probability models arising in the engineering field. |
| C213.4 | Analyze and solve linear programming models of real – life situations and solve LPP by simplex method. |
| C213.5 | Learn techniques to solve Transportation and Assignment problems. |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C213.1 | 3 | | | | | | | | | | | |
| C213.2 | | 3 | | | | | | | | | | |
| C213.3 | 3 | | | | | | | | | | | |
| C213.4 | 3 | | | | | | | | | | | |
| C213.5 | | 3 | | | | | | | | | | |
| C213 | 3 | 3 | | | | | | | | | | |

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|---|---|---|
| | | |
| Dr. Indumathi R S Vinayaka Bhandari | | Nataraj K |
| Faculty in- charge | | Course Coordinator |
| | | |
| Dr. Ajaykumar M<br>NBA coordinator | Criteria 3 Coordinator<br>Dr. Indumathi R S | Dr. Srinivasa A.H<br>HOD |
| | | |
| Convener | | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
## BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477
## DEPARTMENT OF MATHEMATICS
### COURSE OUTCOME (2022-23)

**Subject:-TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUE**

**Subject Code:-21MAT31** **Course Code:-C231**

**Course Outcomes:-At the end of the course the student will be able to**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C231.1 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| C231.2 | Employ Fourier series to study the behavior of periodic functions and their applications in system communications, digital signal processing and field theory. |
| C231.3 | Analyze the concept of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems. |
| C231.4 | To solve the first and second order partial differential equations arising in engineering problems make use of single step and multistep numerical methods. |
| C231.5 | Examine the extremals of functional using calculus of variations arising in dynamics of rigid bodies and vibrational analysis problems |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C231.1 | 3 | | | | | | | | | | | |
| C231.2 | 3 | | | | | | | | | | | |
| C231.3 | | 3 | | | | | | | | | | |
| C231.4 | 3 | | | | | | | | | | | |
| C231.5 | | 3 | | | | | | | | | | |
| C231 | 3 | 3 | | | | | | | | | | |

| | | |
|---|---|---|
| Dr. Indumathi R S | Seema S | Bhanupriya B K |
| Faculty in charge | | Course Coordinator |
| Dr. Ajaykumar M<br>NBA coordinator | Dr. Indumathi R S<br>Criteria 3 Coordinator | Dr. Srinivasa A H<br>HOD |
| Convener | | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
## BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477
## DEPARTMENT OF MATHEMATICS
### COURSE OUTCOME (2022-23)

**Subject: MATHEMATICAL FOUNDATION FOR COMPUTING, PROBABILITY & STATISTICS**
**Subject Code:-21MATCS41** **Course Code:-C241**

**Course Outcomes:-At the end of the course the student will be able to**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C241.1 | Apply the concepts of logic for effective computation & relating problems in Computer science & allied branches. |
| C241.2 | Analysis of concepts of functions & relations to various fields of Engineering , comprehened the concepts of Graph Theory for various applications of Computational science |
| C241.3 | Apply discrete & continuous probability distributions in analysing the probability models arising in Computer science & allied branches. |
| C241.4 | Make use of the correlation & regression analysis to fit a suitable mathematical model for the statistical data. |
| C241.5 | Construct joint probability distribution & demonstrate the validity of testing the hypothesis |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C241.1 | 3 | | | | | | | | | | | |
| C241.2 | | 3 | | | | | | | | | | |
| C241.3 | 3 | | | | | | | | | | | |
| C241.4 | | 3 | | | | | | | | | | |
| C241.5 | 3 | | | | | | | | | | | |
| C241 | 3 | 3 | | | | | | | | | | |

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|---|---|
| Dr. Ajaykumar M Sindhushree M V Bhanupriya B K | Bhanupriya B K |
| Faculty in charge | Course Coordinator |

| | | |
|---|---|---|
| Dr. Ajaykumar M<br>NBA coordinator | Dr.Indumathi R S<br>Criteria 3 Coordinator | Dr. Srinivasa A H<br>HOD |
| Convener | | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
## BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477
## DEPARTMENT OF MATHEMATICS
### COURSE OUTCOME (2021-22)

**Subject: TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUE**
**Subject Code: 18MAT31** **Course Code: C231**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| 18MAT31.1 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| 18MAT31.2 | Employ Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory. |
| 18MAT31.3 | Analyze the concept of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems. |
| 18MAT31.4 | To solve the first and second order ordinary differential equations arising in engineering problems make use of single step and multistep numerical methods. |
| 18MAT31.5 | Examine the externals of functional using calculus of variations arising in dynamics of rigid bodies and vibrational analysis problems |

| CO No | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 18MAT31.1 | 3 | - | | | | | | | | | | |
| 18MAT31.2 | 3 | - | | | | | | | | | | |
| 18MAT31.3 | - | 3 | | | | | | | | | | |
| 18MAT31.4 | 3 | - | | | | | | | | | | |
| 18MAT31.5 | - | 3 | | | | | | | | | | |
| CO Average | 3 | 3 | | | | | | | | | | |

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|---|---|---|
| Vinayak Bhandari | Nataraj K | Vinayak Bhandari |
| Faculty | | Course Coordinator |

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| | | |
| Ajaykumar M<br>NBA coordinator | Criteria 3 Coordinator | Dr.Srinivasa A.H<br>HOD |
| | | |
| Convener | | Principal |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
## BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477
## DEPARTMENT OF MATHEMATICS
### COURSE OUTCOME (2021-22)

**Subject:- COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS**

**Subject Code: - 18MAT41** **Course Code:-C241**

**Course Outcomes: - At the end of the course the student will be able to**

| CO'S | DESCRIPTION OF THE OUTCOMES |
|---|---|
| 18MAT41.1 | **Construct analytic functions and solve real and complex integral problems.** |
| 18MAT41.2 | **Analyze the probability models in various engineering fields.** |
| 18MAT41.3 | **Apply the method of least squares to fit a linear curve, quadratic curve and geometric curve for a statistical data.** |
| 18MAT41.4 | **Apply the concept of correlation and regression to fit suitable mathematical models for the statistical data.** |
| 18MAT41.5 | **Analyze joint probability distribution and estimate the test of hypothesis.** |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 18MAT41.1 | 3 | - | | | | | | | | | | |
| 18MAT41.2 | - | 3 | | | | | | | | | | |
| 18MAT41.3 | 3 | - | | | | | | | | | | |
| 18MAT41.4 | 3 | - | | | | | | | | | | |
| 18MAT41.5 | - | 3 | | | | | | | | | | |
| **18MAT41** | 3 | 3 | | | | | | | | | | |

Approval of the COs and their mapping with POs on 12/04/2021

| | | |
|---|---|---|
| **Vinayak Bhandari , Nataraj K, Ajay C K** | | **Vinayak Bhandari** |
| **Faculty** | | **Course Coordinator** |
| **Ajaykumar M**<br>**NBA coordinator** | **Criteria 3 Coordinator** | **Dr.Srinivasa A.H**<br>**HOD** |
| **Convener** | | **Principal** |

**MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE**
**BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477**

# DEPARTMENT OF MATHEMATICS

**COURSE OUTCOME (2022-23)**

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
**DEPARTMENT OF MATHEMATICS**

# Course Outcome (2021-22)

**Subject: TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUE**
**Subject Code: 18MAT31** **Course Code: C231**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C231.1 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| C231.2 | Employ Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory. |
| C231.3 | Analyze the concept of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems. |
| C231.4 | To solve the first and second order ordinary differential equations arising in engineering problems make use of single step and multistep numerical methods. |
| C231.5 | Examine the externals of functional using calculus of variations arising in dynamics of rigid bodies and vibrational analysis problems |

| CO No | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C231.1 | 3 | - | | | | | | | | | | |
| C231.2 | 3 | - | | | | | | | | | | |
| C231.3 | - | 3 | | | | | | | | | | |
| C231.4 | 3 | - | | | | | | | | | | |
| C231.5 | - | 3 | | | | | | | | | | |
| CO Average | 3 | 3 | | | | | | | | | | |

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|---|---|---|---|
| Ajay Kumar M | Sindhushree M V | Dr. Purushothama S | Ajay C K |
| Faculty | | | Course Coordinator |

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| Ajay Kumar M<br>NBA coordinator | Criteria 3 Coordinator | Dr. Srinivasa A H<br>HOD |
| | | |
| Convener | | Principal |

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477
**DEPARTMENT OF MATHEMATICS**

# Course Outcome (2021-22)

**Subject: COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS**

**Subject Code: 18MAT41** **Course Code: C241**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C241.1 | Construct analytic functions and solve real and complex integral problems. |
| C241.2 | Analyze the probability models in various engineering fields. |
| C241.3 | Apply the method of least squares to fit a linear curve, quadratic curve and geometric curve for a statistical data. |
| C241.4 | Apply the concept of correlation and regression to fit suitable mathematical models for the statistical data. |
| C241.5 | Analyze joint probability distribution and estimate the test of hypothesis. |

| CO No | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C241.1 | 3 | | | | | | | | | | | |
| C241.2 | | 3 | | | | | | | | | | |
| C241.3 | 3 | | | | | | | | | | | |
| C241.4 | 3 | | | | | | | | | | | |
| C241.5 | | 3 | | | | | | | | | | |
| CO Average | 3 | 3 | | | | | | | | | | |

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|---|---|---|---|
| Nataraj K | Ajay Kumar M | Ajay C K | Ajay C K |
| **Faculty** | | | **Course Coordinator** |
| | | | |
| **Ajaykumar M**<br>**NBA coordinator** | | **Criteria 3 Coordinator** | **Dr. A H Srinivasa**<br>**HOD** |
| | | | |
| **Convener** | | | **Principal** |

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477

# DEPARTMENT OF MATHEMATICS

## Course Outcome (2022-23)

**Subject: TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUE**
**Subject Code: 21MAT31** **Course Code: C231**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C231.1 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| C231.2 | Employ Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory. |
| C231.3 | Analyze the concept of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems. |
| C231.4 | To solve the first and second order ordinary differential equations arising in engineering problems make use of single step and multistep numerical methods. |
| C231.5 | Examine the externals of functional using calculus of variations arising in dynamics of rigid bodies and vibrational analysis problems |

| CO No | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C231.1 | 3 | - | | | | | | | | | | |
| C231.2 | 3 | - | | | | | | | | | | |
| C231.3 | - | 3 | | | | | | | | | | |
| C231.4 | 3 | - | | | | | | | | | | |
| C231.5 | - | 3 | | | | | | | | | | |
| CO Average | 3 | 3 | | | | | | | | | | |

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|---|---|---|---|
| Indumathi R S | Vinayak Bhandari | Dr Srinivasa A H | Ajay C K |
| Faculty | | | Course Coordinator |

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|---|---|---|
| Ajay Kumar M<br>NBA coordinator | Criteria 3 Coordinator | Dr. Srinivasa A H<br>HOD |
| Convener | | Principal |

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477

# DEPARTMENT OF MATHEMATICS

## Course Outcome (2022-23)

**Subject: MATHEMATICAL FOUNDATIONS FOR COMPUTING, PROBABILITY & STATISTICS**

**Subject Code: 21MATCS41** **Course Code: C241**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| C241.1 | Apply the concepts of logic for effective computation and relating problems in the engineering domain. |
| C241.2 | Analyze the concepts of functions and relations to various fields of Engineering Comprehend the concepts of Graph Theory for various applications of Computational sciences. |
| C241.3 | Apply discrete and continuous probability distributions in analysing the probability models arising in the engineering field. |
| C241.4 | Make use of the correlation and regression analysis to fit a suitable mathematical model for the statistical data. |
| C241.5 | Construct joint probability distribution and estimate the validity of testing the hypothesis. |

| CO No | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| C241.1 | 3 | | | | | | | | | | | |
| C241.2 | | 3 | | | | | | | | | | |
| C241.3 | 3 | | | | | | | | | | | |
| C241.4 | 3 | | | | | | | | | | | |
| C241.5 | | 3 | | | | | | | | | | |
| CO Average | 3 | 3 | | | | | | | | | | |

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|---|---|---|---|
| Ajay C K | GAGANA M R | SEEMA S | Ajay C K |
| **Faculty** | | | **Course Coordinator** |
| | | | |
| **Ajaykumar M**<br>**NBA coordinator** | | **Criteria 3 Coordinator** | **Dr. A H Srinivasa**<br>**HOD** |
| | | | |
| **Convener** | | | **Principal** |

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477

**DEPARTMENT OF MATHEMATICS**

# Course Outcome (2022-23)

**Subject: TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUE**

**Subject Code: 21MAT31** **Course Code: C231**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| 21MAT31.1 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| 21MAT31.2 | Employ Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory. |
| 21MAT31.3 | Analyze the concept of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems. |
| 21MAT31.4 | To solve the first and second order ordinary differential equations arising in engineering problems make use of single step and multistep numerical methods. |
| 21MAT31.5 | Examine the externals of functional using calculus of variations arising in dynamics of rigid bodies and vibrational analysis problems |

| CO No | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 21MAT31.1 | 3 | - | | | | | | | | | | |
| 21MAT31.2 | 3 | - | | | | | | | | | | |
| 21MAT31.3 | - | 3 | | | | | | | | | | |
| 21MAT31.4 | 3 | - | | | | | | | | | | |
| 21MAT31.5 | - | 3 | | | | | | | | | | |
| CO Average | 3 | 3 | | | | | | | | | | |

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|---|---|---|
| **Dr.Srinivasa A.H** | **Vinayak Bhandari** | **Dr Purushothama S** |
| **Faculty** | | **Course Coordinator** |
| | | |
| **Ajaykumar M.**<br>**NBA coordinator** | **Criteria 3 Coordinator** | **Dr.Srinivasa A.H**<br>**HOD** |
| | | |
| **Convener** | | **Principal** |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE

**BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477**

**DEPARTMENT OF MATHEMATICS**

**Course Outcome (2022-23)**

**Subject:- COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS**

**Subject Code: - 21MAT41** **Course Code:- C241**

| CO'S | DESCRIPTION OF THE OUTCOMES |
|---|---|
| 21MAT41.1 | Construct analytic functions and solve real and complex integral problems. |
| 21MAT41.2 | Special functions familiarize the power series solution required to analyse the Engineering Problems |
| 21MAT41.3 | Apply the method of least squares to fit a linear curve, quadratic curve and geometric curve for a statistical data. |
| 21MAT41.4 | Apply the concept of correlation and regression to fit suitable mathematical models for the statistical data. |
| 21MAT41.5 | Analyze probability, joint probability distribution and estimate the test of hypothesis. |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 21MAT41.1 | 3 | - | | | | | | | | | | |
| 21MAT41.2 | - | 3 | | | | | | | | | | |
| 21MAT41.3 | 3 | - | | | | | | | | | | |
| 21MAT41.4 | 3 | - | | | | | | | | | | |
| 21MAT41.5 | - | 3 | | | | | | | | | | |
| 21MAT41 | 3 | 3 | | | | | | | | | | |

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| **Dr. Purushothama S** | **Nataraj K** | **Dr. Purushothama S** |
| **Faculty** | | **Course Coordinator** |
| **Dr. Ajaykumar M**<br>**NBA coordinator** | **Criteria 3 Coordinator** | **Dr.Srinivasa A.H**<br>**HOD** |
| **Convener** | | **Principal** |

# MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE

**BELAWADI, SRIRANGAPATNA TALUK, MANDYA-571477**

**DEPARTMENT OF MATHEMATICS**

**Course Outcome (2021-22)**

**Subject:- COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS**

**Subject Code: - 18MAT41** **Course Code:-C241**

| CO'S | DESCRIPTION OF THE OUTCOMES |
|---|---|
| 18MAT41.1 | Construct analytic functions and solve real and complex integral problems. |
| 18MAT41.2 | Analyze the probability models in various engineering fields. |
| 18MAT41.3 | Apply the method of least squares to fit a linear curve, quadratic curve and geometric curve for a statistical data. |
| 18MAT41.4 | Apply the concept of correlation and regression to fit suitable mathematical models for the statistical data. |
| 18MAT41.5 | Analyze joint probability distribution and estimate the test of hypothesis. |

| CO No. | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 18MAT41.1 | 3 | - | | | | | | | | | | |
| 18MAT41.2 | - | 3 | | | | | | | | | | |
| 18MAT41.3 | 3 | - | | | | | | | | | | |
| 18MAT41.4 | 3 | - | | | | | | | | | | |
| 18MAT41.5 | - | 3 | | | | | | | | | | |
| 18MAT41 | 3 | 3 | | | | | | | | | | |

| | | |
|---|---|---|
| **Indumathi R S** **Nataraj K** **Dr. Purushothama S** | | **Dr. Purushothama S** |
| **Faculty** | | **Course Coordinator** |
| **Ajaykumar M**<br>**NBA coordinator** | **Criteria 3 Coordinator** | **Dr.Srinivasa A.H**<br>**HOD** |
| **Convener** | | **Principal** |

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE
BELAWADI, SRIRANGAPATNA Taluk, MANDYA-571477

**DEPARTMENT OF MATHEMATICS**

# Course Outcome (2020-21)

**Subject: TRANSFORM CALCULUS, FOURIER SERIES AND NUMERICAL TECHNIQUE**

**Subject Code: 18MAT31** **Course Code: C231**

| CO's | DESCRIPTION OF THE OUTCOMES |
|---|---|
| 18MAT31.1 | Solving differential/ integral equation arising in network analysis, control systems and other fields of engineering by Laplace transform and inverse Laplace transform |
| 18MAT31.2 | Employ Fourier series to study the behaviour of periodic functions and their applications in system communications, digital signal processing and field theory. |
| 18MAT31.3 | Analyze the concept of Fourier transform and Z-transform to illustrate discrete/continuous function arising in wave and heat propagation, signals and systems. |
| 18MAT31.4 | To solve the first and second order ordinary differential equations arising in engineering problems make use of single step and multistep numerical methods. |
| 18MAT31.5 | Examine the externals of functional using calculus of variations arising in dynamics of rigid bodies and vibrational analysis problems |

| CO No | PO No | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 18MAT31.1 | 3 | - | | | | | | | | | | |
| 18MAT31.2 | 3 | - | | | | | | | | | | |
| 18MAT31.3 | - | 3 | | | | | | | | | | |
| 18MAT31.4 | 3 | - | | | | | | | | | | |
| 18MAT31.5 | - | 3 | | | | | | | | | | |
| CO Average | 3 | 3 | | | | | | | | | | |

| | | |
|---|---|---|
| **Ajay C K** **R. S. Indumathi** **Sindhushree M V** | | **Dr Purushothama S** |
| **Faculty** | | **Course Coordinator** |
| | | |
| **Ajaykumar M.**<br>**NBA coordinator** | **Criteria 3 Coordinator** | **Dr.Srinivasa A.H**<br>**HOD** |
| | | |
| **Convener** | | **Principal** |