

BVM Engineering College (An Autonomous Institution)**Structural Engineering Department****M. Tech. Infrastructure Engineering and Technology****Semester 1**

| Sr. No | Course Code | Name of Course | L | T | P | H | C |
|------------------------------|-----------------------|--|-----------|----------|----------|-----------|-----------|
| 1 | 501IF | Infrastructure Planning and Finance | 3 | 1 | 0 | 4 | 4 |
| 2 | 502IF | Sustainable Urban Planning | 3 | 1 | 0 | 4 | 4 |
| 3 | 503IF | Infrastructure Engineering & Technology Studio - I | 0 | 0 | 4 | 4 | 2 |
| 4 | | Program Elective - I | 3 | 0 | 2 | 5 | 4 |
| 5 | | Program Elective - II | 3 | 1 | 0 | 4 | 4 |
| 6 | | Program Elective - III | 2 | 1 | 0 | 3 | 3 |
| Total | | | 14 | 4 | 6 | 24 | 21 |
| Program Elective - I | | | | | | | |
| 1 | 501EN | Theory of Water and Waste Water Engineering -I | 3 | 0 | 2 | 5 | 4 |
| 2 | 541IF | Urban Infrastructure Planning & Management | 3 | 0 | 2 | 5 | 4 |
| 3 | 542IF | Electrical & Mechanical System in Infrastructure Engineering | 3 | 0 | 2 | 5 | 4 |
| 4 | 543IF | Fundamental design study of various infrastructure | 3 | 0 | 2 | 5 | 4 |
| 5 | 544IF | Project Procurement systems | 3 | 0 | 2 | 5 | 4 |
| 6 | 501MA | Data Analytics in Engineering | 3 | 0 | 2 | 5 | 4 |
| Program Elective - II | | | | | | | |
| 1 | 545IF | Reliability Engineering | 3 | 1 | 0 | 4 | 4 |
| 2 | 546IF | Infrastructure Informatics | 3 | 1 | 0 | 4 | 4 |
| 3 | 546TE | Water Transport System | 3 | 1 | 0 | 4 | 4 |
| 4 | 546SE | Structural Health Monitoring | 3 | 1 | 0 | 4 | 4 |
| 5 | 541TE | Transportation Planning and Practices | 3 | 1 | 0 | 4 | 4 |
| 6 | 545TE | Railway Infrastructure Planning and Design | 3 | 1 | 0 | 4 | 4 |

Program Elective - III

| | | | | | | | |
|---|-----------------------|--|---|---|---|---|---|
| 1 | 547IF | Municipal Rules And By-Laws | 2 | 1 | 0 | 3 | 3 |
| 2 | 548IF | Introduction to Green Buildings | 2 | 1 | 0 | 3 | 3 |
| 3 | 549IF | Contracts and Arbitration | 2 | 1 | 0 | 3 | 3 |
| 4 | 550IF | Geotechnical Landfill Design and Maintenance | 2 | 1 | 0 | 3 | 3 |
| 5 | 551IF | Reuse & Recycle Technology | 2 | 1 | 0 | 3 | 3 |
| 6 | 552IF | Renewable Energy Technology | 2 | 1 | 0 | 3 | 3 |

Semester 2

| Sr. No | Course Code | Name of Course | L | T | P | H | C |
|--------------|-----------------------|---|-----------|----------|----------|-----------|-----------|
| 1 | 504IF | Infrastructure Project Management | 3 | 1 | 0 | 4 | 4 |
| 2 | 505IF | Construction Technology and Management | 3 | 1 | 0 | 4 | 4 |
| 3 | 506IF | Infrastructure Engineering and Technology Studio - II | 0 | 0 | 4 | 4 | 2 |
| 4 | 508SE | Research Methodology | 1 | 0 | 2 | 3 | 2 |
| 5 | | Program Elective - IV | 3 | 0 | 2 | 5 | 4 |
| 6 | | Program Elective - V | 3 | 1 | 0 | 4 | 4 |
| 7 | | Program Elective - VI | 2 | 1 | 0 | 3 | 3 |
| Total | | | 15 | 4 | 8 | 27 | 23 |

Program Elective - IV

| | | | | | | | |
|---|-----------------------|--|---|---|---|---|---|
| 1 | 553IF | Project Management | 3 | 0 | 2 | 5 | 4 |
| 2 | 554IF | Advanced Concrete Technology | 3 | 0 | 2 | 5 | 4 |
| 3 | 555IF | City Micro-drainage System | 3 | 0 | 2 | 5 | 4 |
| 4 | 556IF | Geotechnology for Infrastructure | 3 | 0 | 2 | 5 | 4 |
| 5 | 541CE | GIS and GPS in Civil Engineering | 3 | 0 | 2 | 5 | 4 |
| 6 | 504EN | Theory of Water and Waste Water Engineering-II | 3 | 0 | 2 | 5 | 4 |

| Program Elective - V | | | | | | | |
|-----------------------------|-----------------------|---|---|---|---|---|---|
| 1 | 550CM | Project Risk Analysis and Mitigation Techniques | 3 | 1 | 0 | 4 | 4 |
| 2 | 504TE | Pavement Analysis and Design | 3 | 1 | 0 | 4 | 4 |
| 3 | 557IF | Irrigation and Water Distribution Systems | 3 | 1 | 0 | 4 | 4 |
| 4 | 558IF | Urban Governance And Legislation | 3 | 1 | 0 | 4 | 4 |
| 5 | 551SE | Design of Prestressed Concrete Structures | 3 | 1 | 0 | 4 | 4 |
| 6 | 549EN | Environmental Impact Assessment | 3 | 1 | 0 | 4 | 4 |

| Program Elective - VI | | | | | | | |
|------------------------------|-----------------------|--|---|---|---|---|---|
| 1 | 559IF | Design of Intelligent Buildings and Cities | 2 | 1 | 0 | 3 | 3 |
| 2 | 560IF | Water Harvesting, Conservation and Intelligent Control | 2 | 1 | 0 | 3 | 3 |
| 3 | 561IF | Infrastructure Economics | 2 | 1 | 0 | 3 | 3 |
| 4 | 562IF | Project Formulation and Appraisal | 2 | 1 | 0 | 3 | 3 |
| 5 | 563IF | Laws for Engineers | 2 | 1 | 0 | 3 | 3 |
| 6 | 564IF | Sustainable Development | 2 | 1 | 0 | 3 | 3 |

Semester 3

| Sr. No | Course Code | Name of Course | L | T | P | H | C |
|--------------|-----------------------|----------------------------------|----------|----------|-----------|-----------|-----------|
| 1 | 631IF | Dissertation – I | 0 | 0 | 30 | 30 | 15 |
| Total | | | 0 | 0 | 30 | 30 | 15 |

Semester 4

| Sr. No | Course Code | Name of Course | L | T | P | H | C |
|----------------------------------|-----------------------|-----------------------------------|-----------|----------|-----------|------------|-----------|
| 1 | 632IF | Dissertation - II | 0 | 0 | 30 | 30 | 15 |
| Total | | | 0 | 0 | 30 | 30 | 15 |
| Total Credit Distribution | | | 29 | 8 | 74 | 111 | 74 |