

**SWARNIM STARTUP & INNOVATION UNIVERSITY**  
**SWARNIM INSTITUTE OF TECHNOLOGY**  
**Master of Civil Engineering (Structural Engineering)**  
**Department of CIVIL Engineering**  
**Semester I-IV Teaching Scheme and Examination Scheme**

| Semester: 1 (Structural Engineering) |  |          |        |                          |     |           |       |             |         |     |         |          |         |    |         |       |   |
|--------------------------------------|--|----------|--------|--------------------------|-----|-----------|-------|-------------|---------|-----|---------|----------|---------|----|---------|-------|---|
| Subject Code                         | Subject Name                                       | Category | Credit | Teaching scheme per week |     |           |       | Examination |         |     |         |          |         |    |         | Total | REMARKS                                 |
|                                      |  |          |        | Th                       | Tut | Practical | Total | Internal    |         |     |         | External |         |    |         |       |   |
|                                      |  |          |        |                          |     |           |       | Th          | PASSING | Pr  | PASSING | Th       | PASSING | Pr | PASSING |       |   |
| 26080101                             | English for Research Paper Writing ( Audit Course) | Audit-1  | -      | 2                        | -   | -         | 2     | -           | -       | -   | -       | 50       | 25      | -  | -       | 50    | INDIVIDUAL<br>PASS IN EACH<br>COMPONENT |
| 26080102                             | Research Methodology and IPR                       | MLC      | 2      | 1                        | -   | 2         | 3     | -           | -       | 20  | 10      | -        | -       | 80 | 40      | 100   |   |
| 26080103                             | Advanced Structural Analysis                       | Core-1   | 4      | 3                        | -   | 2         | 5     | 30          | 15      | 50  | 25      | 70       | 35      | -  | -       | 150   |   |
| 26080104                             | Advanced Concrete Design of Structures             | Core-2   | 4      | 3                        | -   | 2         | 5     | 30          | 15      | 50  | 25      | 70       | 35      | -  | -       | 150   |   |
|                                      | Elective - I                                       | PE-I     | 4      | 3                        | -   | 2         | 5     | 30          | 15      | 50  | 25      | 70       | 35      | -  | -       | 150   |   |
|                                      | Elective - II                                      | PE-II    | 4      | 3                        | -   | 2         | 5     | 30          | 15      | 50  | 25      | 70       | 35      | -  | -       | 150   |   |
| Total                                |  |          | 18     | 15                       | 0   | 10        | 25    | 120         | 60      | 220 | 110     | 330      | 165     | 80 | 40      | 750   |   |

| Subject Code | Audit Course - 1                   |
|--------------|------------------------------------|
| 26080101     | English for Research Paper Writing |
| 26080105     | Disaster Management                |

| Subject Code | Program Elective - I                                  |
|--------------|---|
| 26080106     | Analytical and Numerical methods for Structural Engg. |
| 26080107     | Theory and applications of Cement Composites          |
| 26080108     | Theory of structural stability                        |

| Subject Code | Program Elective - II          |
|--------------|--------------------------------|
| 26080109     | Theory of Thin plates & shells |
| 26080110     | Advanced Solid Mechanics       |
| 26080111     | Structural Optimization        |

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*Mamir Patra*  
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*Dr. M. K. Patel*  
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| Semester: 2 (Structural Engineering) |                                     |          |        |                          |     |           |       |             |         |     |         |          |         |    |         |       |                                   |
|--------------------------------------|-------------------------------------|----------|--------|--------------------------|-----|-----------|-------|-------------|---------|-----|---------|----------|---------|----|---------|-------|-----------------------------------|
| Subject Code                         | Subject Name                        | Category | Credit | Teaching scheme per week |     |           |       | Examination |         |     |         |          |         |    |         | Total | REMARKS                           |
|                                      |                                     |          |        | Th                       | Tut | Practical | Total | Internal    |         |     |         | External |         |    |         |       |                                   |
|                                      |                                     |          |        |                          |     |           |       | Th          | PASSING | Pr  | PASSING | Th       | PASSING | Pr | PASSING |       |                                   |
| 26080105                             | Disaster Management ( Audit Course) | Audit-2  | -      | 2                        | -   | -         | 2     | -           | -       | -   | -       | 50       | 25      | -  | -       | 50    | INDIVIDUAL PASS IN EACH COMPONENT |
| 26080201                             | Advanced Steel Design               | Core-3   | 4      | 3                        | -   | 2         | 5     | 30          | 15      | 50  | 25      | 70       | 35      | -  | -       | 150   |                                   |
| 26080202                             | Structural Dynamics                 | Core-4   | 4      | 3                        | -   | 2         | 5     | 30          | 15      | 50  | 25      | 70       | 35      | -  | -       | 150   |                                   |
| 26080203                             | Structural Design Project           | Core-5   | 2      | -                        | -   | 4         | 4     | -           | -       | 20  | 10      | -        | -       | 80 | 40      | 100   |                                   |
|                                      | Elective – III                      | PE-III   | 4      | 3                        | -   | 2         | 5     | 30          | 15      | 50  | 25      | 70       | 35      | -  | -       | 150   |                                   |
|                                      | Elective – IV                       | PE-IV    | 4      | 3                        | -   | 2         | 5     | 30          | 15      | 50  | 25      | 70       | 35      | -  | -       | 150   |                                   |
| Total                                |                                     |          | 18     | 14                       | 0   | 12        | 26    | 120         | 60      | 220 | 110     | 330      | 165     | 80 | 40      | 750   |                                   |

| Subject Code | Audit Course - 2                   |
|--------------|------------------------------------|
| 26080101     | English for Research Paper Writing |
| 26080105     | Disaster Management                |

| Subject Code | Program Elective - III         |
|--------------|--------------------------------|
| 26080204     | Design of Formwork             |
| 26080205     | Design of High rise Structures |
| 26080206     | Design of Masonry Structures   |

| Subject Code | Program Elective - IV                                     |
|--------------|---|
| 26080207     | Structural Health Monitoring & Retrofitting of Structures |
| 26080208     | Design of Bridge Structures                               |
| 26080209     | Soil Structure Interaction                                |

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| Semester: 3 (Structural Engineering) |                      |              |        |                          |     |           |       |             |         |     |         |          |         |     |         |       |         |
|--------------------------------------|----------------------|--------------|--------|--------------------------|-----|-----------|-------|-------------|---------|-----|---------|----------|---------|-----|---------|-------|---------|
| Subject Code                         | Subject Name         | Category     | Credit | Teaching scheme per week |     |           |       | Examination |         |     |         |          |         |     |         | Total | REMARKS |
|                                      |                      |              |        | Th                       | Tut | Practical | Total | Internal    |         |     |         | External |         |     |         |       |         |
|                                      |                      |              |        |                          |     |           |       | Th          | PASSING | Pr  | PASSING | Th       | PASSING | Pr  | PASSING |       |         |
| 24000007                             | Dissertation Phase I | Dissertation | 10     | -                        | -   | 20        | 20    | -           | -       | 100 | 50      | -        | -       | 100 | 50      | 200   |         |
|                                      | Open Elective        | OE           | 3      | 3                        | -   | -         | 3     | 30          | 15      | -   | -       | 70       | 35      | -   | -       | 100   |         |
|                                      | Program Elective – V | PE-V         | 3      | 3                        | -   | -         | 3     | 30          | 15      | -   | -       | 70       | 35      | -   | -       | 100   |         |
| Total                                |                      |              | 16     | 6                        | 0   | 20        | 26    | 60          | 30      | 100 | 50      | 140      | 70      | 100 | 50      | 400   |         |

| Subject Code | Open Elective       |
|--------------|---------------------|
| 26080301     | Industrial Safety   |
| 26080302     | Operation Research  |
| 26080303     | Composite Materials |

| Subject Code | Program Elective - V                      |
|--------------|---|
| 26080304     | Design of Prestressed Concrete Structures |
| 26080305     | Earthquake Resistant Design of Structures |
| 26080306     | Advanced Design of foundations Systems    |

| Semester: 4 (Structural Engineering) |                       |              |        |                          |     |           |       |             |         |     |         |          |         |     |         |       |         |
|--------------------------------------|-----------------------|--------------|--------|--------------------------|-----|-----------|-------|-------------|---------|-----|---------|----------|---------|-----|---------|-------|---------|
| Subject Code                         | Subject Name          | Category     | Credit | Teaching scheme per week |     |           |       | Examination |         |     |         |          |         |     |         | Total | REMARKS |
|                                      |                       |              |        | Th                       | Tut | Practical | Total | Internal    |         |     |         | External |         |     |         |       |         |
|                                      |                       |              |        |                          |     |           |       | Th          | PASSING | Pr  | PASSING | Th       | PASSING | Pr  | PASSING |       |         |
| 24000008                             | Dissertation Phase-II | Dissertation | 16     | -                        | -   | 32        | 32    | -           | -       | 100 | 50      | -        | -       | 100 | 50      | 200   |         |
| Total                                |                       |              | 16     | 0                        | 0   | 32        | 32    | 0           | 0       | 100 | 50      | 0        | 0       | 100 | 50      | 200   |         |

  
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