

Amrutvahini Sheti and Shikshan Vikas Sanstha's

**AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER**

(An Autonomous Institute Approved by AICTE and Affiliated to SPPU, Pune)

Amrutnagar, Ghulewadi, Sangamner – 422608



## Curriculum Structure

Of

**M. Tech. Mechanical Engineering-Design Engineering**

w.e.f.

**S.Y. M.Tech: 2026 – 2027**



Chairman  
BoS, Mechanical Engineering  
Amrutvahini College of Engineering, Amrutnagar  
Sangamner-422608



Chairman  
Academic Council  
Amrutvahini College of Engineering, Amrutnagar  
Sangamner-422608

**Second Year M. Tech (Design Engineering) (Semester III)**

| Course Code              | Course Type             | Course Name                                                                                                                                                                                        | Teaching Scheme (Hrs./week) |          |           | Examination Scheme and Marks |         |           |           |      | Credits |          |           |       |
|--------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------|-----------|------------------------------|---------|-----------|-----------|------|---------|----------|-----------|-------|
|                          |                         |                                                                                                                                                                                                    | Theory                      | Tutorial | Practical | CCE*                         | End-Sem | Term work | Practical | Oral | Theory  | Tutorial | Practical | Total |
| Semester III             |                         |                                                                                                                                                                                                    |                             |          |           |                              |         |           |           |      |         |          |           |       |
| R25-MDE-RM-601           | Research Methodology    | Research Methodology                                                                                                                                                                               | 4                           | -        | -         | 50                           | 50      | -         | -         | -    | 4       | -        | -         | 4     |
| R25-MDE-OJT /602         | On Job Training         | Industry Internship                                                                                                                                                                                | -                           | -        | 10        | --                           | --      | 100       | -         | -    | --      | -        | 5         | 5     |
| R25-MDE-MOOC/ SWAYAM-603 | Program Elective Course | Program open elective courses based on MOOC / SWAYAM Platform.<br>• Composite Material Design<br>• Artificial Intelligence in Design Engineering<br>• Optimization Technique<br>• Any other course | 4                           | -        | --        | --                           | 50      | -         | -         | -    | 4       | -        |           | 4     |
| R25-MDE-RPS I-604        | Research Project        | Research Project Stage -I                                                                                                                                                                          | --                          | -        | 18        | --                           | --      | -         | -         | 50   | --      | -        | 9         | 9     |
| R25-MDE-CTS-605          | Civitech Skill Course   | Introduction to Constitution of India                                                                                                                                                              | -                           | -        | --        | -                            | -       | --        | -         | --   | -       | -        | -         | 2     |
| Total                    |                         |                                                                                                                                                                                                    | 08                          | -        | 28        | 50                           | 100     | 100       | --        | 50   | 08      | --       | 14        | 24    |

**CCE\*: Comprehensive Continuous Evaluation**

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**Second Year M. Tech (Design Engineering) (Semester IV)**

| Course Code        | Course Type            | Course Name               | Teaching Scheme (Hrs./week) |          |           | Examination Scheme and Marks |         |           |           |      | Credits |          |           |       |
|--------------------|------------------------|---------------------------|-----------------------------|----------|-----------|------------------------------|---------|-----------|-----------|------|---------|----------|-----------|-------|
|                    |                        |                           | Theory                      | Tutorial | Practical | CCE*                         | End-Sem | Term work | Practical | Oral | Theory  | Tutorial | Practical | Total |
| Semester IV        |                        |                           |                             |          |           |                              |         |           |           |      |         |          |           |       |
| R25-MDE-SEM II-606 | Research Project       | Seminar-II                | -                           | -        | 08        | --                           | --      | 50        | -         | 50   | -       | -        | 04        | 4     |
| R25-MDE-RPS II-607 | Research Project       | Research Project Stage-II | -                           | -        | 36        | -                            | -       | 150       | -         | 50   | -       | -        | 18        | 18    |
| R25-MDE-CTS-608    | Civitech Skills Course | Cyber Security            | --                          | -        | --        | --                           | --      | -         | -         | -    | --      | -        | --        | 4     |
| Total              |                        |                           | -                           | -        | 44        | --                           | --      | 200       | --        | 100  | --      | --       | 18        | 26    |

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