

# Mechanical Engineering, M.S.

## Thesis Option

| Code                               | Title                          | Semester<br>Credit<br>Hours |
|------------------------------------|--------------------------------|-----------------------------|
| <b>Core Requirements</b>           |                                |                             |
| MEEN 5330                          | Continuum Mechanics            | 3                           |
| MEEN 5321                          | Advanced Fluid Mechanics       | 3                           |
| MEEN 5318                          | Advanced Dynamics              | 3                           |
| MEEN 5337                          | Engin Analysis in Applied Mech | 3                           |
| <b>Thesis Requirement</b>          |                                |                             |
| MEEN 5306                          | Thesis                         | 3                           |
| MEEN 5306                          | Thesis                         | 3                           |
| <b>Approved Electives</b>          |                                | <b>12</b>                   |
| MEEN 5301                          | Advanced Probs in Mech Eng     |                             |
| MEEN 5303                          | Advanced Topics in Mech Eng    |                             |
| MEEN 5314                          | Finite Element Methods in Engi |                             |
| MEEN 5315                          | Advanced Mechanism Design      |                             |
| MEEN 5316                          | Mechanics Composite Materials  |                             |
| MEEN 5320                          | Theory of Elasticity           |                             |
| MEEN 5322                          | Turbulent Flow                 |                             |
| MEEN 5326                          | Control Systems Engineering    |                             |
| MEEN 5328                          | Dynamic Systems Engineering    |                             |
| MEEN 5331                          | Advance Materials Science      |                             |
| MEEN 5333                          | Polymer Science                |                             |
| MEEN 5335                          | Advnd Robotics and Automation  |                             |
| MEEN 5339                          | Comp Aided Geometric Design    |                             |
| MEEN 5341                          | Tribology: Friction Wear & Lub |                             |
| MEEN 5347                          | Advanced Thermodynamics        |                             |
| MEEN 5348                          | Auto. Sys. and Ind. Controls   |                             |
| MEEN 5349                          | Mechanical Vibrations          |                             |
| MHEN 5372                          | Sensors & Actuators Mechatron  |                             |
| <b>Total Semester Credit Hours</b> |                                | <b>30</b>                   |

## Research Project Option

| Code                                | Title                          | Semester<br>Credit<br>Hours |
|-------------------------------------|--------------------------------|-----------------------------|
| <b>Core Requirements</b>            |                                |                             |
| MEEN 5330                           | Continuum Mechanics            | 3                           |
| MEEN 5321                           | Advanced Fluid Mechanics       | 3                           |
| MEEN 5318                           | Advanced Dynamics              | 3                           |
| MEEN 5337                           | Engin Analysis in Applied Mech | 3                           |
| <b>Research Project Requirement</b> |                                |                             |
| MEEN 5305                           | Graduate Research Project      | 3                           |
| <b>Approved Electives</b>           |                                | <b>21</b>                   |
| MEEN 5301                           | Advanced Probs in Mech Eng     |                             |
| MEEN 5303                           | Advanced Topics in Mech Eng    |                             |

|                             |                                |    |
|-----------------------------|--------------------------------|----|
| MEEN 5314                   | Finite Element Methods in Engi |    |
| MEEN 5315                   | Advanced Mechanism Design      |    |
| MEEN 5316                   | Mechanics Composite Materials  |    |
| MEEN 5320                   | Theory of Elasticity           |    |
| MEEN 5322                   | Turbulent Flow                 |    |
| MEEN 5326                   | Control Systems Engineering    |    |
| MEEN 5328                   | Dynamic Systems Engineering    |    |
| MEEN 5331                   | Advance Materials Science      |    |
| MEEN 5333                   | Polymer Science                |    |
| MEEN 5335                   | Advnd Robotics and Automation  |    |
| MEEN 5339                   | Comp Aided Geometric Design    |    |
| MEEN 5341                   | Tribology: Friction Wear & Lub |    |
| MEEN 5347                   | Advanced Thermodynamics        |    |
| MEEN 5348                   | Auto. Sys. and Ind. Controls   |    |
| MEEN 5349                   | Mechanical Vibrations          |    |
| MHEN 5372                   | Sensors & Actuators Mechatron  |    |
| Total Semester Credit Hours |                                | 36 |

## Course Only Option

| Code                               | Title                          | Semester<br>Credit<br>Hours |
|------------------------------------|--------------------------------|-----------------------------|
| <b>Core Requirements</b>           |                                |                             |
| MEEN 5330                          | Continuum Mechanics            | 3                           |
| MEEN 5321                          | Advanced Fluid Mechanics       | 3                           |
| MEEN 5318                          | Advanced Dynamics              | 3                           |
| MEEN 5337                          | Engin Analysis in Applied Mech | 3                           |
| <b>Approved Electives</b>          |                                | <b>24</b>                   |
| MEEN 5301                          | Advanced Probs in Mech Eng     |                             |
| MEEN 5303                          | Advanced Topics in Mech Eng    |                             |
| MEEN 5314                          | Finite Element Methods in Engi |                             |
| MEEN 5315                          | Advanced Mechanism Design      |                             |
| MEEN 5316                          | Mechanics Composite Materials  |                             |
| MEEN 5320                          | Theory of Elasticity           |                             |
| MEEN 5322                          | Turbulent Flow                 |                             |
| MEEN 5326                          | Control Systems Engineering    |                             |
| MEEN 5328                          | Dynamic Systems Engineering    |                             |
| MEEN 5331                          | Advance Materials Science      |                             |
| MEEN 5333                          | Polymer Science                |                             |
| MEEN 5335                          | Advnd Robotics and Automation  |                             |
| MEEN 5339                          | Comp Aided Geometric Design    |                             |
| MEEN 5341                          | Tribology: Friction Wear & Lub |                             |
| MEEN 5347                          | Advanced Thermodynamics        |                             |
| MEEN 5348                          | Auto. Sys. and Ind. Controls   |                             |
| MEEN 5349                          | Mechanical Vibrations          |                             |
| MHEN 5372                          | Sensors & Actuators Mechatron  |                             |
| <b>Total Semester Credit Hours</b> |                                | <b>36</b>                   |