

# Curriculum for the Department of Mechanical Engineering

## Master Graduate Program For 2021

| Semester<br>(Credit<br>/hour) | Fall  |             | Spring  |             |
|-------------------------------|---|-------------|---|-------------|
|                               | Courses   | Credit/hour | Courses   | Credit/hour |
| Required<br>courses (0/2)     | Treatise  | 0/1         | Treatise  | 0/1         |
| Elective<br>courses (3/3)     | Failure Analysis of<br>Materials                                | 3/3         | Mechanical Behaviors of<br>Materials            | 3/3         |
|                               | Vibration   | 3/3         | Finite Element Method                           | 3/3         |
|                               | Automatic Optical<br>Inspection                                 | 3/3         | Computer Aided Structure<br>Design and Analysis | 3/3         |
|                               | Precision Machine Design  | 3/3         | Principles & Applications<br>of Gears           | 3/3         |
|                               | Introduction to<br>Computational Fluid<br>Dynamics and Practice | 3/3         | Green Energy Engineering                        | 3/3         |
|                               | Micro Machine System  | 3/3         | Renewable Energy                                | 3/3         |
|                               | Hydraulic and<br>Compressible Flow<br>Turbomachines             | 3/3         | Intelligent Machinery and<br>Manufacturing      | 3/3         |
|                               | Advanced 3D Printer<br>Technology                               | 3/3         | Thermal Fluid<br>Measurement                    | 3/3         |
|                               | Engineering Statistics and<br>Probability                       | 3/3         | Engineering Optimum<br>Design                   | 3/3         |
|                               | Advanced Composite<br>Structures                                | 3/3         | Advanced Mechanics of<br>Materials              | 3/3         |
|                               | Composite structural<br>mechanics                               | 3/3         | Sensor Principle and<br>Application             | 3/3         |
|                               | Internships   | 3/3         | Satellite Navigation for<br>Aviation            | 3/3         |

### Graduation Qualifications:

- 24 credits. (Include 8 elective courses, and at least two semesters of Thesis Seminar).
- The dissertation oral examination must be passed.
- Academic Ethics Online Course must be Pass
- Please refer to the Study Regulations for the Master's Program of the Department.

\*The number of courses offered each academic year will be adjusted according to the actual approved standards.