

# MINOR IN MECHANICAL ENGINEERING

## Overview

The University of Miami Department of Mechanical and Aerospace Engineering offers a minor in Mechanical Engineering

## Curriculum Requirements

| Code   | Title  | Credit Hours |
|--|--|--------------|
| <b>Core Courses</b>  |  |              |
| CAE 210  | Mechanics of Solids I                          | 3            |
| <b>Elective Courses</b>  |  |              |
| EGN 123<br>or EGN 114 OR EGN 110   | Computing and Digital Solutions for the future | 3            |
| Select 9 credit hours from one of the following areas of specialization: |  | 9            |
| Energy Engineering:  |  |              |
| MAE 303  | Thermodynamics                                 |              |
| MAE 420  | Applied Thermodynamics                         |              |
| MAE 503  | Internal Combustion Engines                    |              |
| MAE 506  | Nuclear Engineering                            |              |
| MAE 510  | Fundamentals of Solar Energy Utilization       |              |
| Environmental Engineering:   |  |              |
| MAE 303  | Thermodynamics                                 |              |
| MAE 309  | Fluid Mechanics                                |              |
| MAE 408  | Heating, Ventilating, and Air Conditioning     |              |
| MAE 510  | Fundamentals of Solar Energy Utilization       |              |
| MAE 521  | Exhaust Emission Control                       |              |
| Materials Engineering:   |  |              |
| MAE 207  | Mechanics of Solids II                         |              |
| MAE 301  | Engineering Materials Science                  |              |
| MAE 302  | Mechanical Behavior of Materials               |              |
| MAE 507  | Advanced Mechanics of Solids                   |              |
| Thermal Engineering:   |  |              |
| MAE 303  | Thermodynamics                                 |              |
| MAE 310  | Heat Transfer                                  |              |
| MAE 408  | Heating, Ventilating, and Air Conditioning     |              |
| MAE 420  | Applied Thermodynamics                         |              |
| MAE 441  | Design of Fluid and Thermal Systems            |              |
| MAE 503  | Internal Combustion Engines                    |              |
| MAE 508  | Intermediate Heat Transfer                     |              |
| MAE 510  | Fundamentals of Solar Energy Utilization       |              |
| <b>Total Credit Hours</b>  |  | <b>15</b>    |

\* At least 9 credit hours of Mechanical Engineering courses must be taken at the University of Miami; subject to approval of an academic advisor.

\*\* A minimum 2.0 grade point average in all MAE courses taken is required.