## AEROSPACE ENGINEERING, M.E.

## Degree Requirements

An M.E. student must take a minimum of 30 hours of graded graduate courses. For M.E. degree, the student must take five required courses. All remaining course work must be taken from an approved list of courses, which includes engineering and mathematics courses numbered 500 or above. Other courses must be approved by the student's advisor and the graduate studies committee. All candidates for the M.E. degree must complete comprehensive assessment that is distinct from program course requirements.

## Program of Study for the Masters Program in Aerospace Engineering

## Required Courses

All M.S. and M.E. candidates in Aerospace Engineering will be required to take the five (5) core courses listed below:

| Course | Title | Credits |
| :--- | :--- | ---: |
| EMCH 508 | Finite Element Analysis in Mechanical Engineering | 3 |
| EMCH 577 | Aerospace Structures I | 3 |
| EMCH 744 | Aerodynamics \& Flight Mechanics | 3 |
| EMCH 585 | Introduction to Composite Materials | 3 |
| EMCH 721 | Aeroelasticity | 3 |
| Total Credit Hours | $\mathbf{1 5}$ |  |

## Elective Aerospace Courses

All students in Aerospace Engineering must take a minimum of two (2) courses from the following courses:

| Course | Title | Credits |
| :--- | :--- | ---: |
| EMCH 743 | Aircraft and Rocket Propulsion | 3 |
| EMCH 777 | Aerospace Structures II | 3 |
| EMCH 522 | Design for Manufacture and Assembly | 3 |
| EMCH 544 | Compressible Fluid Flow | 3 |
| EMCH 516 | Control Theory in Mechanical Engineering | 3 |
| EMCH 532 | Intermediate Dynamics | 3 |
| EMCH 571 | Mechanical Behavior of Materials | 3 |
| EMCH 701 | Methods of Engineering Analysis | 3 |
| ENCP 707 | Continuum Mechanics | 3 |
| EMCH 721 | Aeroelasticity | 3 |
| EMCH 751 | Advanced Heat Transfer | 3 |
| EMCH 741 | Viscous and Turbulent Flow | 3 |
| EMCH 794 | Thermodynamics | 3 |
| EMCH 785 | Design of Composite Materials for Aerospace | 3 |
| EMCH 881 | Structures | 3 |

## Other Elective Courses

All remaining work must be taken from an approved list of courses which currently includes all engineering courses numbered 500 or above and math courses numbered 700 or above. Business courses numbered 500 or above may be taken with advance approval by the advisor and the

Graduate Studies Committee. Other courses will be added to the list as approved by the faculty.

## Additional Program of Study Requirements

## Course and Program Grades

Courses not satisfying the requirements for a graduate degree are:

1. Any course with a grade of $D+, D$ or $F$.
2. More than 12 credits with grade of $\mathrm{C}+$ or below (the 4-C Rule).
3. Any course taken on a non-letter grade basis (except thesis).
4. More than 12 semester hours of credits from a previous graduate degree program.

The student must maintain a minimum grade point average of 3.0 in:

1. All courses taken as part of the official degree program.
2. All courses numbered 700 or above.
3. All courses taken for graduate credit, including those not included in the official degree program.
4. Pass/Fail - A "fail" grade counts toward the 4-C rule.

## Comprehensive Examination

For the M.E. degree, a student passes the comprehensive exam by demonstrating competence in a written exam.

