**STUDENT INFORMATION**

|  |  |
| --- | --- |
| **Name:** | **NAU ID:** |
| **NAU E-mail Address:** | **Phone Number:** |
| **Term of Admission:** | **Expected Graduation Term/Year:** |
| **Advisor:** | **Required Credits for Degree Program: 60** |

**I. Mechanical Engineering Coursework (21 units required):**

* Select from ME 520, ME 523, ME 525, ME 530, ME 535, ME 554, ME 556, ME 560, ME 561, ME 563, ME 573, ME 575, ME 580, and ME 599.
* ME 599 topics include Grid Integration of Renewable Energy, Elasticity, Advanced Engineering Analysis, Continuum Mechanics, Convective Transport, Advanced Thermodynamics, Advanced Dynamics, Viscous Flows, Multivariable Controls, Statistical Thermodynamics and Kinetic Theory, Plates and Shells.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Course Title** | **Replacement Course** | **Semester** | **Year** | **Units** | **Grade** | **T/P/I/A\*\*** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**II. Applied Mathematics (3 units required):**

* Select from MAT 661, MAT 690, ME 556, ME 599: Advanced Engineering Analysis, and STA 570.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Course Title** | **Replacement Course** | **Semester** | **Year** | **Units** | **Grade** | **T/P/I/A\*\*** |
|  |  |  |  |  |  |  |  |

**III. Engineering Computations (3 units required):**

* Select from MAT 563, ME 554, ME 525, and ME 599: Advanced Computational Fluid Mechanics.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Course Title** | **Replacement Course** | **Semester** | **Year** | **Units** | **Grade** | **T/P/I/A\*\*** |
|  |  |  |  |  |  |  |  |

**IV. Electives (15 units required):**

* In consultation with your faculty advisor, select additional ME, science, business, mathematics or other graduate coursework. These may include up to 6 units of 400-level courses and up to 6 units of independent study.
* Up to 30 units of Graduate-level coursework from an MS degree may be applied toward the degree requirements with the approval of the dissertation committee.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Course Title** | **Replacement Course** | **Semester** | **Year** | **Units** | **Grade** | **T/P/I/A\*\*** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**V. Mechanical Engineering Seminar (3 units required):** ME 698

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Course Title** | **Replacement Course** | **Semester** | **Year** | **Units** | **Grade** | **T/P/I/A\*\*** |
| ME 698 | Graduate Seminar |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**VI. Dissertation (15 units required):** ME 799

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Course Title** | **Replacement Course** | **Semester** | **Year** | **Units** | **Grade** | **T/P/I/A\*\*** |
| ME 799 | Dissertation |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**ADDITIONAL INFORMATION**

In addition to course requirements, students will have a publication requirement for this degree. In order to complete a PhD in ME at NAU, students must have at least one paper in which they are the lead author accepted for publication in a reviewer-blind peer-reviewed journal with an impact factor of at least 0.5.

ME 608 is encouraged so that students obtain an internship with a local or regional industrial partner as part of their graduate training. However, no more than 3 units of 608 may be used towards the degree.

In accordance with standards across the U.S. for ME PhD programs, there are three major exams required for this degree:

* Qualifying exam. This exam is to be taken once a student has completed (or is concurrently enrolled in) at least 30 units of coursework, including all of their ME, Mathematics, and Computation courses. The exam will be both written and oral and will test the student understanding of the fundamental principles related to their dissertation research topic.
* Advance to Candidacy exam. This exam must be completed within one semester of a student passing the qualifying exam. This exam has both a written and oral component, and will be administered by a student’s dissertation committee.
* Dissertation Defense. This exam is to be taken once a student has advanced to candidacy and has at least one reviewer-blind, peer-reviewed journal paper accepted for publication.

This Program of Study documents your progress on your academic requirements for the degree and catalog year listed above. For Department of Defense-related requirements, it serves as the evaluated and approved educational plan.

In addition to all University and Office of Graduate & Professional Studies (OGPS) policies, procedures, and requirements, graduate students must also adhere to the academic requirements, policies, procedures, and criteria outlined by their program’s Graduate Student Handbook.

**Students:**

You must secure official approval by your advisor and Department Chair/Director before submitting your final Program of Study for graduation.

By signing or entering your name below, you agree to the following statement:

*“Students are responsible for complete knowledge of Academic Catalog requirements in their degree plan for their catalog year and adhering to all policies in the Academic Catalog.”*

**Advisors and Chairs/Directors:**

Please indicate approval of the curriculum on the Program of Study by placing your signature (formal digital signatures are permitted) in the space provided.

|  |  |
| --- | --- |
| **Student:** | **Date:** |
| **Advisor:** | **Date:** |
| **Chair:** | **Date:** |

**\*\*Transfer/Previous Graduate Degree/Internal Transfer/Accelerated (T/P/I/A)** – Must have Advisor approval

Transfer T = Course transferred from another university

Previous Graduate Degree P = Course taken at NAU from previous graduate degree

Internal Transfer I = Graduate-level course taken as undergraduate; Not applied to undergraduate degree

Accelerated Program “Dual-use” A = Courses completed during the undergraduate career and used to satisfy both the Bachelor’s and Master’s degree requirements. ONLY for designated Accelerated students.