NON-DESTRUCTIVE EVALUATION ENGINEERING MINOR

Minor supervised by an interdisciplinary faculty committee, administered by Aerospace Engineering. The NDE minor is a unique opportunity for engineering students to acquire a multidisciplinary engineering qualification in the rapidly evolving field of Nondestructive Evaluation.

Undergraduate Study

Students interested in completing the NDE engineering minor must be enrolled in the College of Engineering at Iowa State University. They must submit the “Request for Minor” form and complete the minimum prescribed 16 credit-hours of course work defined below. Acceptance is based on approval by the administering department, Aerospace Engineering.

The course requirements for the undergraduate minor in NDE are:

- **MAT E/E M 362**  Principles of Nondestructive Testing  3
- **MAT E/E M 362L**  Nondestructive Testing Laboratory  1
- At least one of the following NDE specific courses  3-4
  - **C E 449**  Structural Health Monitoring
  - **M S E/E M 550**  Nondestructive Evaluation
  - **MAT E 488**  Eddy Current Nondestructive Evaluation
  - **E M 480**  Ultrasonic Nondestructive Evaluation
  - **AER E 429X**  Penetrating Radiation Methods in Nondestructive Evaluation

Independent Study courses on NDE projects from other engineering disciplines will need to be approved by the NDE Minor Coordinator

- **AER E 490J**  Aerospace Engineering Independent Study: Nondestructive Evaluation (Research Topic related to NDE for any 490)
  - or **E E 490**  Independent Study
  - or **M E 490**  Independent Study
  - or **MAT E 490**  Independent Study

Up to three of the following or additional NDE specific courses from the list above  9-12

- **AER E 321**  Flight Structures Analysis
- **AER E 421**  Advanced Flight Structures
- **AER E 423**  Composite Flight Structures
- **E E 418**  High Speed System Engineering Measurement and Testing
- **E E 224**  Signals and Systems I

**Total Credits**  16-20

A combined average grade of C or higher is required in courses applied to the minor and the minor must include at least 9 credits that are not used to meet any other department, college, or university requirement.