NON-DESTRUCTIVE EVALUATION MINOR

Minor supervised by an interdisciplinary faculty committee, administered by Materials Science and 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 a "Curriculum Change" form and complete the minimum prescribed 16 credit-hours of course work defined below. Acceptance is based on approval by the administering department, Materials Science and Engineering.

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

The course requirements for the undergraduate minor in NDE are:

- **EM 3620/3620** Principles of Nondestructive Testing 3
- **MATE/EM 3620L** Nondestructive Testing Laboratory 1
- At least one of the following NDE specific courses 3-4
  - **CE 4490** Structural Health Monitoring
  - **EM 4800** Ultrasonic Nondestructive Evaluation
  - **MATE 4850X** Penetrating Radiation Methods in Nondestructive Evaluation
  - **MATE 4880** Eddy Current Nondestructive Evaluation
  - **MSE/EM 5500** Nondestructive Evaluation

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

- **AERE 4900J** Aerospace Engineering Independent Study: Nondestructive Evaluation (Research Topic related to NDE for any 4900)
  - or **EE 4900** Independent Study
  - or **MATE 49IC** Independent Study
  - or **ME 4900H** Independent Study: Honors
  - or **ME 4900HIC** Independent Study: Non Technical Elective
  - or **ME 4900T** Independent Study: Technical Elective

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

- **AERE 3210** Flight Structures Analysis
- **AERE 4210** Advanced Flight Structures

Total Credits: 16-20