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 491  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.