

# ECE 3893: Introduction to Heterogeneous Integration and Electronics Packaging, Spring Offering

## Course Overview

This Undergraduate-Level Engineering course leverages both theoretical and hands-on instruction methods to introduce concepts needed for an introductory understanding of characterization of modern Heterogeneous Integrated electronic packaging systems. Knowledge and experience gained from this course will have direct applicability to multiple industries, some of which include: Defense, Aerospace, Automotive, Consumer Electronics, as well as many other rapidly growing industries.

## Topics

Overview of HI and Electronics Packaging	Material Selection and Characterization
Electrical Design and Characterization	Package Fabrication
Thermal Design and Characterization	Statistical Modelling and Data Analysis
Mechanical Design and Characterization	Radiation Hardening

## Format

30% Theory via Online Lectures      70% Application via Web-Based Laboratories

## Grading

Exams	None	0%
Homework	None	0%
Mini-Projects	Weekly/Final Lab Projects	100%

## Prerequisites

Junior-Level standing in an ABET Accredited Undergraduate Engineering Program.  
Restricted to all COE students who are not freshmen or sophomore.

