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
Electrical Design and Characterization
Thermal Design and Characterization
Mechanical Design and Characterization
Material Selection and Characterization
Package Fabrication
Statistical Modelling and Data Analysis
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.