

Engineering Faculty Document No. EFD 14-26

May 9, 2025

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Memorandum

To: The Faculty of the College of Engineering

The School of Aeronautics and Astronautics From:

Date: May 9, 2025

Re: Fast track EFD – AAE 20401 updating course description

AAE 20401 Aeromechanics II Laboratory

Current AAE 20401 Course Description:

Introduction to strain gauges, dial gauges, and photoelasticity. Tensile test. Torsion of solid and hollow propeller shafts. Stress concentration around skin cut-outs. Bending of symmetrical box wing beams. Combined axial and flexural test of aircraft stringers. Buckling of slender stringers.

Proposed AAE 20401 Course Description:

This course introduces aerospace engineering students to experimental concepts including strain gauges and Wheatstone bridges, as well as mechanics of materials using tensile testing, basic truss structures, bending of I-beams, torsion of shafts, and bi-axial stress and strain.

Reasons: A course review revealed the new description better described the course content.

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