Engineering Faculty Document No.: 39-01
Date: June 10, 2002

TO: Faculty of Schools of Engineering

FROM: Faculty of the School of Aeronautics and Astronautics

SUBJECT: Change in Course Catalog Description for AAE 558

The Faculty of the School of Aeronautics and Astronautics has approved the change in the course catalog description of the course listed below. This action is now submitted to the Engineering Faculty with a recommendation for approval.

FROM:

AAE 558 Finite Element Methods in Aerospace Structures
Sem. 1, class 3, cr. 3
Prerequisite: AAE 453 or consent of instructor

Introduction to the use of advanced finite element methods in treating aerospace structures. Static analysis of wing, fuselage, and rocket structures. Stability and large displacement of ribs, stringers, and skins. Vibration of wing-fuselage combinations. Structural damping. Vibration of stretched or compressed wing panels.

TO:

AAE 558 Finite Element Methods in Aerospace Structures
Sem. 1, class 3, cr. 3
Prerequisite: AAE 453 or consent of instructor

Introduction to the use of advanced finite element methods in the calculation of deformation, strain, and stress in aerospace structures. Topics include 1-D, 2-D, 3-D, and axisymmetric elements, isoparametric element formulation, convergence, treatment of boundary conditions and constraints. Special topics include stability, dynamic analysis, and nonlinear material behavior. Emphasis is on the theoretical knowledge of the finite element method. Applied experience is gained by solution of aerospace structural analysis problems through use of professional software.

Reason:
The new description more accurately reflects what is actually taught in the course.

_____
Thomas N. Farris, Professor and Head
School of Aeronautics and Astronautics