

Aerospace Engineering

AE 361 Fundamentals of Aerodynamics 3 cr

Conservation laws, potential flow, airfoil and wing analysis. Boundary layer theory and pressure gradients on plates and airfoils. Introduction to turbulent and vortex-dominated flows. Pre-requisite: (EG 360 Minimum Grade of C and MA 227 Minimum Grade of C and PH 202 Minimum Grade of C).

AE 468 Principles of Aircraft Design 3 cr

Introduction to aircraft design, including an understanding of the various components leading to a good conceptual design. Introduction to parameters in aerospace analysis and how they may impact a design. Application of design concepts to an RFP (request for proposal) for design competition.

Pre-requisite: (ME 328 Minimum Grade of C and EG 360 Minimum Grade of C). ME 328 can be taken concurrently with this course.

AE 470 Aircraft Structural Analysis 3 cr

Pre-requisite: EG 284 Minimum Grade of C and EG 315 Minimum Grade of C and ME 328 Minimum Grade of C. ME 328 can be taken concurrently with this course.