New Course Requests

**AERO 670. Turbulence Modeling.** (3-0). Credit 3. Identification of physical features that render Navier-Stokes equation difficult to compute or model; includes; Reynolds-averaged and filtered Navier-Stokes equations for unresolved stresses; development of closure models for pressure-strain correlation, dissipation and turbulent transport Reynolds; algebraic Reynolds stress modeling, Large Eddy Simulations (LES) and hybrid methods are presented; validation and prediction studies. Prerequisite(s): AERO 640 and graduate classification or approval of instructor.

**ENTO 645. Arthropods as Vectors of Plant Pathogens.** (3-0). Credit 3. Concepts on transmission of plant pathogens, discussion of transmission mechanisms, characteristics of insect vectors and their consequences for plant protection. Prerequisite(s): Graduate classification or approval of instructor.

**VTPP 652. Fetal and Embryo Physiology.** (3-0). Credit 3. Introduction to the physiologic processes driving embryonic development and pregnancy; focus on embryo implantation, establishment of the placenta, development of the fetal circulatory systems and the molecular processes governing embryo differentiation and development; special emphasis on the major organ systems affected by pediatric disease and on the actions of teratogens. Prerequisite(s): Graduate classification.