

6 October 2020

TO: Faculty Senate

FROM: Paul Loikith, Chair, Graduate Council

RE: November 2020 Consent Agenda

The following proposals have been approved by the Graduate Council and are recommended for approval by the Faculty Senate.

You may read the full text for any proposal, as well as Budget Committee comments, at the [Online Curriculum Management System \(OCMS\) Curriculum Dashboard](#).

## **Maseeh College of Engineering and Computer Science**

### **New Courses**

#### E.1.a.1

- \*ME 561 Buildings and health: Indoor air quality, 4 credits  
We spend 90% of our time inside buildings and much of our exposure to air pollution occurs indoors. Students develop mass-balance models of pollutant fate, transport, and transformation for indoor spaces including parameterizing indoor sources (emissions), indoor-outdoor transport (ventilation), transformation (removal and chemical reactions), and control strategies for indoor air pollutants. Students solve developed models with analytical and numerical methods. Students use mass-balance models to inform assessment of human exposure to air pollution and infectious disease transmission.  
Prerequisite: ME 320 or equivalent.

#### E.1.a.2

- ME 580 Boundary Layers, 4 credits  
Presents boundary layers from a laminar and turbulent perspective. Derivation of the boundary layer equations of motion is carried out. Order of magnitude analysis and similarity solutions are discussed. Specific cases of these flows are considered.  
Prerequisite: ME 541 or equivalent.

#### E.1.a.3

- ME 680 Boundary Layers, 4 credits  
Presents boundary layers from a laminar and turbulent perspective. Derivation of the boundary layer equations of motion is carried out. Order of magnitude analysis and similarity solutions are discussed. Specific cases of these flows are considered.  
Prerequisite: ME 641 or equivalent.

\* This course is part of a dual-level (400/500) course. For any revisions associated with the 400-level section please refer to the Undergraduate Curriculum Committee consent agenda memo.