Engineering Faculty Document No. 54-22
December 1, 2021

TO: The Faculty of the College of Engineering

FROM: The Faculty of the Weldon School of Biomedical Engineering

RE: Change to Undergraduate-Level Course BME 30100 requisites

The faculty of the School of Biomedical Engineering has approved the following change in requisites of the course listed below. This action is now submitted to the Engineering Faculty with a recommendation for Fast Track approval.

FROM: **BME 30100 Bioelectricity**
Term offered: Fall, Lecture, Cr. 3, 16 weeks
Prerequisites: MA 26200 or (MA 26500 and MA 26600) and (PHYS 24100 or PHYS 27200) and (BME 30500 [may be taken concurrently] or ECE 20200 [may be taken concurrently])
College Restriction: School of Biomedical Engr
Major Restriction: Biomedical Engineering

Fundamentals of bioelectricity of the mammalian nervous system and other excitable tissues. Passive and active forms of electric signals in both the single cell and cell-cell communication, tissue and systematic bioelectricity, mathematical analysis including Nernst equation, Goldman equation, linear cable theory, and Hodgkin-Huxley Model of action potential generation and propagation.

TO: **BME 30100 Bioelectricity**
Term offered: Fall, Lecture, Cr. 3, 16 weeks
Prerequisites: MA 26200 or (MA 26500 and MA 26600) and BME 20700
Major Restriction: Biomedical Engineering

Fundamentals of bioelectricity of the mammalian nervous system and other excitable tissues. Passive and active forms of electric signals in both the single cell and cell-cell communication, tissue and systematic bioelectricity, mathematical analysis including Nernst equation, Goldman equation, linear cable theory, and Hodgkin-Huxley Model of action potential generation and propagation.

REASON: Requisite changes have been made to reflect recent changes in BME plan of study updates/requirements. Pre-requisites have also been streamlined to eliminate redundancy.

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Weldon School of Biomedical Engineering