TO: The Engineering Faculty

FROM: The Faculty of the Weldon School of Biomedical Engineering

RE: New Engineering Concentration

The Faculty of the Weldon School of Biomedical Engineering has approved the following new Concentration from the College of Engineering. This action is now submitted to the Engineering Faculty with a recommendation for approval.

TITLE:

Concentration in Artificial Intelligence and Digital Health

DESCRIPTION:

This concentration applies to these programs/major:

Programs:

- BME-MSBME

To earn this concentration, students will complete the following coursework:

- 9 credit hours in Artificial Intelligence and Digital Health, consisting of 3 of the following 4 courses (additional courses may be developed or identified in the area of artificial intelligence and digital health to fulfill this requirement):
    - BME 59500 Healthcare Systems Engineering
    - BME 59500 Wearable Sensors in Healthcare
    - BME 64600 Deep Learning – Theory and Practice of Deep Neural Networks
    - BME 69500 Seminars in Digital Health Transformation

RATIONALE:

The development of new medical technologies and devices has expanded from traditional hardware devices to an increasing reliance on software devices and supporting technologies including AI. Additionally, the delivery of healthcare and collection and use of health-related data to support treatment and new product development rely on digital technologies. This new concentration provides a focus on artificial intelligence and digital health within the medical technology ecosystem. BME students have a high level of interest in AI and digital technologies in healthcare. A concentration in this space provides an opportunity for these students to focus on this area of high demand by the healthcare industry, including manufacturers of medical devices and pharmaceuticals, and healthcare organizations.

Kevin Otto

Head/Director of the Weldon School of Biomedical Engineering

Link to Curriculog entry: https://purdue.curriculog.com/proposal:29148/form