Engineering Faculty Document No.: 80-24 February 26, 2023

**TO**: The Engineering Faculty

FROM: Interdisciplinary Engineering Team

**RE**: New graduate course – ENGR 60300 Doctor of Engineering Seminar

The Interdisciplinary Engineering team has approved the following new graduate course, which will be available residentially and online. This action is now submitted to the Engineering Faculty with a recommendation for approval.

Name: ENGR 60300 Doctor of Engineering Seminar

Semesters offered: Fall, Spring and Summer

Credits: 1 credit per semester; standard academic calendar

Pre-Requisites: None required

The graduate seminar is designed to provide students with the opportunity to explore and engage with current research topics, trends, and developments within engineering. The seminar will feature a different guest speaker each week. Here are the benefits of participating in the seminar:

- Knowledge expansion: You will gain insights into cutting-edge research.
- Exposure to diverse research areas: You will be exposed to a broader range of topics and research
  areas. This exposure will help you gain a more comprehensive understanding of current cutting edge
  research topics and techniques. It can also inspire new research ideas and perspectives that you may
  not have considered previously.
- Developing critical thinking skills: You will refine your critical thinking by asking questions and participating in discussions during the seminars.
- Developing presentation skills: You will observe different presentation styles and effective communication techniques that you can use as examples to develop your own.
- Networking: You will be able to interact with professors, researchers, and peers from within and outside your program.

#### **RATIONALE:**

Seminar courses in Engineering are currently offered residentially and allow students exposure to industry professionals. The Doctor of Engineering program will be offered primarily online, so a seminar available fully online will be important. Additionally, as D.Eng. students begin their interdisciplinary engineering program, they may be interested in a more general engineering seminar such as this one to help direct and focus their industry goals. Other discipline-specific graduate seminars will be open to D.Eng. students, but students will likely want to start by taking this more general Doctor of Engineering Seminar course.

Jamara I.K. Cham

Link to Curriculog entry: forthcoming

# **ENGR 60300 – Doctor of Engineering Seminar**

#### **Course Information**

Course Number and Title: ENGR 60300 Doctor of Engineering Seminar

CRN: TBD

Meeting day(s) and time(s): Online, asynchronous

Mode: Asynchronous, 16 weeks, 1 credit hours

Prerequisites: None

**Instructor Information** 

**TBD** 

## **Course Description**

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- Knowledge expansion: You will gain insights into cutting-edge research.
- Exposure to diverse research areas: You will be exposed to a broader range of topics and research areas. This exposure will help you gain a more comprehensive understanding of current cutting edge research topics and techniques. It can also inspire new research ideas and perspectives that you may not have considered previously.
- **Developing critical thinking skills:** You will refine your critical thinking by asking questions and participating in discussions during the seminars.
- **Developing presentation skills:** You will observe different presentation styles and effective communication techniques that you can use as examples to develop your own.
- **Networking:** You will be able to interact with professors, researchers, and peers from within and outside your program.

As one of the foundational courses for the Doctor of Engineering program, students are expected to take this course at least once during their first year of the program.

### **Learning Outcomes**

LOA1. List critical areas and topics being investigated across a variety of engineering disciplines and areas.

LOA2. Summarize a research presentation.

LOA3. Identify improvements for current research practices.

LOA4. Identify effective presentation styles and effective communication techniques.

LOA5. Network with your peers and provide feedback.

## **Assignments**

Attendance Presentation Report

#### Grading

This course is Pass / Not Pass. The expectation is that you attend at least 12 out of 15 seminars in the semester. Attendance will be taken and will include answering several reflection questions meant to demonstrate the learning objectives of the course.

Example topics include:

Briefly summarize the topic of the seminar talk.

Briefly summarize the research methods used to perform the research presented in the talk.

Do you think the statistical or computational methods used to analyze the data were appropriate or not appropriate? Why?

What was the main take-away message from the research presented?

Briefly summarize the application of the research.