

## ACADEMIC COUNCIL REPORT

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### ACTION REQUESTED:

Recommendation   
Decision   
Discussion/Direction   
Information

DATE: 26 March 2024

FROM: Undergraduate Studies Committee

SUBJECT: Minor Program Adjustment – Bachelor of Engineering – Software Engineering program, Software Engineering – Internet of Things specialization, and Software Engineering and Management program

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### COMMITTEE MANDATE:

In accordance with Section 1. b) of the Undergraduate Studies Committee (USC) Terms of Reference, USC has the responsibility “to approve minor program adjustments and report them to Academic Council for information.”

### BACKGROUND/CONTEXT & RATIONALE:

The Faculty proposed to:

- Remove ELEE 2790U Electric Circuits from Year 2, Semester 1 and replace with ELEE 2200U – Electrical Engineering Fundamentals
- Merge ELEE 2450U and ELEE3450U into a new SOFE 2250U course.
  1. Remove ELEE 2450U Digital Systems from Year 2, Semester 2
  2. Remove ELEE 3450U Microprocessors and Computer Architecture from Year 3, Semester 1
  3. Add New Course SOFE 2250U Digital Systems and Computer Architecture to Year 2, Semester 2
- Merge SOFE 3490U and SOFE3980U into a new SOFE 3290U course.
  1. Remove SOFE 3490U Software Project Management from Year 3, Semester 2
  2. Remove SOFE 3980U Software Quality from Year 3, Semester 2
  3. Add New Course SOFE 3290U Software Quality and Project Management to Year 3, Semester 2

The changes to the Software Engineering program are a reflection of the continuous improvement process and are aligned with a commitment to providing an exceptional educational experience while promoting the well-being of students. Streamlining the curriculum to offer five courses per semester will provide the needed balance between academic rigor and mental wellness. This is

accomplished by removing unnecessary courses and combining courses to reduce content overlap without compromising the quality of the program.

The changes enhance the program and the student learning experience as follows:

- Quality over quantity: the focused curriculum will enhance the student engagement by providing more time to facilitate better understanding and applications of concepts leading to a more enriching educational experience.
- Reduced mental load: The five courses per semester allow for a more manageable course load that contributes to reduced stress and anxiety levels leading to a more supportive and productive learning environment.

As a result of the above changes, the following course changes are required:

- SOFE 3950U Operating Systems: change the prerequisite to SOFE 3200U
- SOFE 4590U Embedded Systems: change the prerequisite to SOFE 3950U

### **RESOURCES REQUIRED:**

Courses are being removed or combined, therefore no additional resources required.

### **TRANSITION PLAN:**

- Fall 2023 entry (students starting year 2 in Fall 2024) and Fall 2024 entry (students starting year 1) – students will follow the new program map
- Fall 2022 entry (students starting year 3) - students will take ELEE 3450U in (3-1) and will take the new course SOFE 3290U instead of SOFE 3490U and SOFE 3980U in (3-2).

### **CONSULTATION AND APPROVAL:**

- ✓ FEAS Graduate Committee: 18 January 2024
- ✓ Faculty Council: 25 January 2024
- ✓ Undergraduate Studies Committee (for approval): 20 February 2024
- Academic Council (for information): 26 March 2024

Additional consultation and feedback were garnered through faculty, staff and student representation at program and department level meetings.

### **NEXT STEPS:**

Following presentation to Academic Council, this change will be included in the 2024-2025 Academic Calendar.

### **SUPPORTING REFERENCE MATERIALS:**

- [Minor Program Adjustment Proposal – Software Engineering](#)
- [Minor Program Adjustment Proposal – Internet of Things specialization](#)
- [New Course Proposal – SOFE 2250U](#)
- [New Course Proposal – SOFE 3290U](#)
- [Course Change – SOFE 3950U](#)
- [Course Change – SOFE 4590U](#)