PURDUE UNIVERSITY® | Elmore Family School of Electrical and Computer Engineering

Memorandum

To: The College of Engineering Faculty

From: The Elmore Family School of Electrical and Computer Engineering

Re: revision to the Software Engineering Concentration for BSCmpE

The faculty of the Elmore Family School of Electrical and Computer Engineering has approved the following revisions of the Software Engineering Concentration for BSCmpE from the College of Engineering. This action is now submitted to the Engineering Faculty with a recommendation for approval.

FROM:

Required: (10 credits):

Required Course (3 credits)
ECE 30864 – Software Engineering Tools

Selectives (6 credit)
ECE 46100 Software Engineering or
    ECE 59500 – Advanced Software Engineering
ECE 49595 – Open Source Software Senior Design

Electives (3 credits)
VIP (Vertically Integrated Projects) and ECE 49600 Undergraduate Projects may be taken for a maximum of 3 credits toward the concentration upon approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning.
ECE 30862 – Object-Oriented Programming in C++ and Java
ECE 40400 – Introduction to Computer Security
ECE 46900 – Operating Systems Engineering
ECE 46800 – Introduction to Compilers and Translation Engineering or
    ECE 57300 – Compilers and Translator Writing Systems
ECE 49600 – Electrical and Computer Engineering Projects
ECE 51220 – Applied Algorithms
VIP 37920 - Junior Participation In Vertically Integrated Projects (VIP)
VIP 47920 - Senior Participation In Vertically Integrated Projects (VIP)

TO:

Required: (10 credits):

Required Course (3 credits)
ECE 30864 – Software Engineering Tools

Selectives (6 credit)
ECE 46100 Software Engineering
ECE 49595 – Open Source Software Senior Design

Electives (3 credits)
ECE 30862 – Object-Oriented Programming in C++ and Java
ECE 40400 – Introduction to Computer Security
ECE 46900 – Operating Systems Engineering
ECE 46800 – Introduction to Compilers and Translation Engineering or
     ECE 57300 – Compilers and Translator Writing Systems
ECE 51220 – Applied Algorithms
ECE 56200 – Introduction to Data Management
ECE 56300 – Programming Parallel Machines
ECE 39595/49595/59500 - Selected Topics In Electrical Engineering Qualifying Title:
     ECE 59500 – Advanced Software Engineering

VIP (Vertically Integrated Projects) and ECE 49600 Undergraduate Projects may be taken for a maximum of 3 credits toward the concentration upon approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning.
ECE 49600 - Electrical And Computer Engineering Projects
VIP 37920 - Junior Participation In Vertically Integrated Projects (VIP)
VIP 47920 - Senior Participation In Vertically Integrated Projects (VIP)

Reason: The area added a few courses as well as some experimental courses have obtained permanent numbers.

T.S. Mutha

Mithuna Thottethodi
Associate Head of Teaching and Learning
Professor of Electrical and Computer Engineering

Software Engineering Concentration
for Computer Engineering

The Software Engineering Concentration prepares students to work in software-oriented jobs or research areas. It covers topics in software engineering (how do you build good software) and software tools (what modern frameworks do software developers need to know), as well as electives that give students an opportunity to hone their software development skills.

Requirements (10 credits)
VIP (Vertically Integrated Projects) and ECE 49600 Undergraduate Projects may be taken for a maximum of 3 credits toward the concentration Selectives or Electives upon approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning. If VIP or ECE 49600 are used to satisfy the selective requirement, they may not be used to meet the Elective credit below.

Required Course (1 credit):

ECE 30864: Software Engineering Tools

Selectives (6 credits):

ECE 46100: Software Engineering [3 credits]
ECE 49595: Open Source Software Senior Design [4 credits] *

With Approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning, can include up to 3 hours of:
•VIP 37920 [2 credits]
•VIP 47920 [2 credits]
•ECE 49600 [1-3 credits]

Electives (3 credits):

ECE 30862: Object-Oriented Programming in C++ and Java [3 credits]
ECE 40400: Introduction to Computer Security [3 credits]
ECE 46900: Operating Systems Engineering [4 credits]
ECE 46800: Introduction to Compilers and Translation Engineering [4 credits] **OR**
ECE 57300: Compilers and Translator Writing Systems [3 credits]
ECE 51220: Applied Algorithms [3 credits]
ECE 59500: Advanced Software Engineering [3 credits]

With Approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning, can include up to 3 hours of:
•VIP 37920 [2 credits]
•VIP 47920 [2 credits]
•ECE 49600 [1-3 credits]

*in process of getting permanent number