

CDA 3XXX Computer Architecture

New Course Justification

During the curriculum restructuring process, two architecture specific required courses (CDA-3103 and CDA-4101) are identified with substantial overlap with other Computer Science required courses. For this reason, these two courses as in the left flowchart (present curriculum model) below, have been replaced with one new course (CDA-3XXX) as shown in the right flowchart (restructured new curriculum model) below. This enables students to take one additional elective course to widen their skills in emerging technologies that would increase their career opportunities.

This course focuses on the execution of high-level language programs through assembly language code and machine language, basics of digital logic; design of combinational and sequential circuits, memory, arithmetic logic unit, and CPU. Further, it introduces cache architecture, branch prediction and multiple instruction issue that would facilitate students to gain insight on performance improvement of program execution.

