

UMBC UGC Change in Existing Course: CMPE 415 Programmable Logic Devices

Date Submitted: April 5, 2021

| | Name | Email | Phone | Dept |
|-------------------|----------------------|------------------|--------|------|
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COURSE INFORMATION: (please provide all information in the “current” column, and only the information changing in the “proposed” column)

| Change | | Current | Proposed |
|-------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | Course Number(s) Include cross-listed courses | 415 | 316 |
| <input type="checkbox"/> | Formal Title | Programmable Logic Devices | |
| <input type="checkbox"/> | Transcript Title (≤30c) | Programmable Logic Devices | |
| <input type="checkbox"/> | Recommended Course Preparation | N/A | |
| <input type="checkbox"/> | Prerequisite | CMPE 310 | Prerequisite must be passed with a grade of: <input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> D |
| <input type="checkbox"/> | # of Credits Must adhere to the UMBC Credit Hour Policy | 3 | |
| <input type="checkbox"/> | Repeatable? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> | Max. Total Credits | 3 | Max. Total Credits: This should be equal to the number of credits for courses that cannot be repeated for credit. For courses that may be repeated for credit, enter the maximum total number of credits a student can receive from this course. E.g., enter 6 credits for a 3 credit course that may be taken a second time for credit, but not for a third time. Please note that this does NOT refer to how many times a class may be retaken for a higher grade. |
| <input type="checkbox"/> | Grading Method(s) | <input checked="" type="checkbox"/> Reg (A-F) <input type="checkbox"/> Audit <input type="checkbox"/> Pass-Fail | <input type="checkbox"/> Reg (A-F) <input type="checkbox"/> Audit <input type="checkbox"/> Pass-Fail |
| <input type="checkbox"/> | Topics Course | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |

CURRENT CATALOG DESCRIPTION (required):

This course covers the concepts, structure and programming characteristics of programmable logic devices such as PLDs and FPGAs. Hardware Description Languages (HDLs) are used to create designs that are tested on FPGA devices.

PROPOSED CATALOG DESCRIPTION (Approximately 75 words in length. Please use full sentences): Leave blank if no changes are being proposed to the catalog description. NOTE: information about prerequisites should NOT appear in the catalog description.

RATIONALE FOR CHANGE:

According to current recommended advising plans, this course is taken in the third year of study in computer engineering. Students have been advised according to this plan and have taken the course in the third year for many years now. The computer engineering undergraduate committee feel that should remain in the third year of studies. Renumbering the course to CMPE 316 conveys the expecting timing of the course in students' program of study.

Since it has been taken successfully in the third year already, there is no proposed change in the content. It can be noted that within the field of computer engineering the refinement of the educational materials, guidelines, and tools associated with technology have been refined over the past couple decades. Furthermore, the use of and practice with FPGA's is much more commonplace. As a result, part of the material is being offered to students at earlier points in studies at universities and community colleges. We feel that formally recognizing and planning the curriculum around this shift is important. Furthermore, there are electives at the 400-level and internship opportunities that students can pursue after their third year if they have this course.

This change was approved by the CMPE UGC on 2021-02-15.

Required Information for Registrar's Office Implementation:

Items below will be listed in the catalog, but do not require UGC approval. For future changes to these items, submit an RT ticket to the Registrar's Office.

| | | | |
|--------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | Component | <input type="checkbox"/> Clinical <input type="checkbox"/> Discussion <input type="checkbox"/> Field Study <input type="checkbox"/> Independent Study <input type="checkbox"/> Laboratory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Practicum <input type="checkbox"/> Seminar <input type="checkbox"/> Thesis Research <input type="checkbox"/> Tutorial | <input type="checkbox"/> Clinical <input type="checkbox"/> Discussion <input type="checkbox"/> Field Study <input type="checkbox"/> Independent Study <input type="checkbox"/> Laboratory <input type="checkbox"/> Lecture <input type="checkbox"/> Practicum <input type="checkbox"/> Seminar <input type="checkbox"/> Thesis Research <input type="checkbox"/> Tutorial |
| <input type="checkbox"/> | Departmental Consent | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> | When Offered (Fall, Winter, Spring, Summer, Other*) *If Other, please describe | Spring and Optionally Fall | |

Requested Effective Date (Please note that the final approval date will determine the earliest possible effective date):

Spring 2022