

## REQUEST TO COLLEGE CURRICULUM COMMITTEE FOR CURRICULAR IMPROVEMENTS

DEPARTMENT:

PROPOSED EFFECTIVE SEMESTER:

COLLEGE:

## PROPOSED IMPROVEMENTS

## Academic Program

- ☐ New degree\*  
☐ New major\*  
☐ New curriculum\*  
☐ New concentration\*  
☐ New certificate  
☐ New minor  
☐ Revised major  
☐ Revised minor  
☐ Admission requirements

XX ☐ Graduation requirements

- ☐ Deletion ☐ Transfer  
☐ Other (explain\*\*)

## Substantive Course Changes

- ☐ New course  
☐ Pre or Co-requisites  
☐ Deletion (required by others)  
☐ Course #, different level  
☐ Credit hours  
☐ Enrollment restriction  
☐ Course-level restriction  
☐ Prefix ☐ Title and description  
 (attach current & proposed)  
☐ General education (select one)  
 Not Applicable  
☐ Other (explain\*\*)

## Misc. Course Changes

- ☐ Title  
☐ Description (attach current & proposed)  
☐ Deletion (not required by others)  
☐ Course #, same level  
☐ Variable credit  
☐ Credit/no credit  
☐ Cross-listing  
☐ COGE reapproval  
☐ Other (explain\*\*)

\*\* Other:

Title of degree, curriculum, major, minor, concentration, or certificate: Computer Science (CSI)

Existing course prefix and #: Proposed course prefix and #: Credit hours:

Existing course title:

Proposed course title:

Existing course prerequisite &amp; co-requisite(s):

Proposed course prerequisite(s)

If there are multiple prerequisites, connect with "and" or "or". To remove prerequisites, enter "none."

Proposed course co-requisite(s)

If there are multiple corequisites, they are always joined by "and."

Proposed course prerequisite(s) that can also be taken concurrently:

Is there a minimum grade for the prerequisites or corequisites?

The default grades are D for undergraduates and C for graduates.

Major/minor or classification restrictions:

List the Banner 4 character codes and whether they should be included or excluded.

For 5000 level prerequisites &amp; corequisites: Do these apply to: (circle one) undergraduates graduates both

Specifications for University Schedule of Classes:

a. Course title (maximum of 30 spaces):

b. Multi-topic course: ☐ No ☐ Yesc. Repeatable for credit: ☐ No ☐ Yesd. Mandatory credit/no credit: ☐ No ☐ Yes

e. Type of class and contact hours per week (check type and indicate hours as appropriate)

1. ☐ Lecture      3. ☐ Lecture/lab/discussion      5. ☐ Independent study  
 2. ☐ Lab or discussion      4. ☐ Seminar or ☐ studio      6. ☐ Supervision or practicum

CIP Code (Registrar's use only):

Chair/Director

Date

Chair, College Curriculum Committee

Date

Dean

Date:

Graduate Dean:

Date

Curriculum Manager: Return to dean ☐ Date

Forward to:

Date

Chair, COGE/ PEB / FS President

Date

## FOR PROPOSALS REQUIRING GSC/USC REVIEW:

\* ☐ Approve ☐ Disapprove

Chair, GSC/USC

Date

\* ☐ Approve ☐ Disapprove

Provost

Date

1. Explain briefly and clearly the proposed improvement.

Currently the CS Department does not restrict the number of courses in which students can earn a D or DC grade – other than prerequisite courses in which they must earn a “C or better”. We propose to restrict the number of courses to 2, in which a student can earn less than a C grade – out of those courses counted towards graduation from the following set of courses:

- All courses with a CS prefix
- ECE2500
- courses used for the Math/Stat/Science 30 credit hour requirement including required Math/Stat courses, the required Science course and any courses included as the Math/Stat/Science electives

2. Rationale. Give your reason(s) for the proposed improvement. (If your proposal includes prerequisites, justify those, too.)

This brings us in line with the other CEAS programs.

3. Effect on other colleges, departments or programs. If consultation with others is required, attach evidence of consultation and support. If objections have been raised, document the resolution. Demonstrate that the program you propose is not a duplication of an existing one.

No major effects foreseen.

4. Effect on your department's programs. Show how the proposed change fits with other departmental offerings.

No major effects foreseen.

5. Effects on enrolled students: Are program conflicts avoided? Will your proposal make it easier or harder for students to meet graduation requirements? Can students complete the program in a reasonable time? Show that you have considered scheduling needs and demands on students' time. If a required course will be offered during summer only, provide a rationale.

In looking at the last year's set of graduates, this would affect 4 students out of 35 having to re-take 1-2 courses in order to improve their grade.

6. Student or external market demand. What is your anticipated student audience? What evidence of student or market demand or need exists? What is the estimated enrollment? What other factors make your proposal beneficial to students?

Not applicable

7. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? How often will course(s) be offered? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)

None

8. General education criteria. For a general education course, indicate how this course will meet the criteria for the area or proficiency. (See the General Education Policy for descriptions of each area and proficiency and the criteria. Attach additional pages as necessary. Attach a syllabus if (a) proposing a new course, (b) requesting certification for baccalaureate-level writing, or (c) requesting reapproval of an existing course.)

Not applicable

9. List the learning outcomes for the proposed course or the revised or proposed major, minor, or concentration. These are the outcomes that the department will use for future assessments of the course or program.

No change

10. Describe how this curriculum change is a response to assessment outcomes that are part of a departmental or college assessment plan or informal assessment activities.

Not applicable

11. (Undergraduate proposals only) Describe, in detail, how this curriculum change affects transfer articulation for Michigan community colleges. For course changes, include detail on necessary changes to transfer articulation from Michigan community college courses. For new majors or minors, describe transfer guidelines to be developed with Michigan community colleges. For revisions to majors or minors, describe necessary revisions to Michigan community college guidelines. Department chairs should seek assistance from college advising directors or from the admissions office in completing this section.

Not applicable

The changes to the Catalog as a result of this change are highlighted in bold below. A new number 3 in the requirements is stated and should replace the old number 3.

### Requirements

Students enrolling in the Computer Science Program are required to own a laptop computer with minimum specifications set by the department. By April of each year, the department will establish specifications of laptops for students entering in the following fall. These specifications will be posted on the department website.

Candidates for the Bachelor of Science in Computer Science must satisfy the following requirements in addition to those required by Western Michigan University:

#### 1. Mathematics/Statistics and Laboratory Science

To satisfy CAC/ABET accreditation requirements, all students must complete at least thirty credit hours of mathematics, statistics and laboratory science requirements which must include one approved laboratory science and a minimum of 15 credit hours in mathematics/statistics. Mathematics/statistics course work must include:

MATH 1220 - Calculus I Credits: 4 hours

Or

MATH 1700 - Calculus I, Science and Engineering Credits: 4 hours

STAT 2600 - Statistics Using R Credits: 4 hours

CS 1310 - Foundations of Computer Science Credits: 4 hours

Students may meet the laboratory science requirement by taking one of the following:

BIOS 1610 - Molecular and Cellular Biology Credits: 4 hours

CHEM 1100 - General Chemistry I Credits: 3 hours

And

CHEM 1110 - General Chemistry Laboratory I Credits: 1 hour

GEOS 1300 - Physical Geology Credits: 4 hours

PHYS 2050 - University Physics I Credits: 4 hours

And

PHYS 2060 - University Physics I Laboratory Credits: 1 hour

Remaining Mathematics/Statistics and Laboratory Science:

The remaining required courses in laboratory science, mathematics and statistics must be approved by a department advisor.

#### 2. General Education

A list of approved General Education courses can be found in the "Graduation and Academic Advising" section in this catalog.

General Education requirements include one course from each of the distribution area I, II, III, IV, V, VI (included in the program), VII, and VIII with no more than two courses in the same department and at least two courses at the 3000-4000 level. A writing course is also required to satisfy Proficiency I.

#### 3. Minimum Grades

- Students may receive at most 2 grades below a C in the following courses:  
All courses with a CS prefix
- **ECE2500**
- **courses used for the Math/Stat/Science 30 credit hour requirement including required Math/Stat courses, the required Science course and any courses included as the Math/Stat/Science electives**

#### 4. Complete 122 Semester Credit Hours

Complete the following program of 122 semester credit hours. The schedule below is an example of one leading to graduation in eight semesters, beginning with the fall semester

## Old Catalog Copy

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#### 3. Grade Point Average

**A grade point average of 2.0 or better must be earned in courses presented for graduation with CS and ECE prefixes and in courses with MATH and STAT prefixes.**

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