NOT FOR USE FOR CURRICULAR COURSE CHANGES
REQUEST FOR PROGRAM IMPROVEMENTS

NOTE: Changes to programs may require course changes, which must be processed electronically. Any questions should be directed to Associate Provost David Reinhold at 7-4564 or david.reinhold@wmich.edu

DEPARTMENT: MAE
COLLEGE: CEAS
PROPOSED EFFECTIVE FALL YEAR: 2019

PROPOSED IMPROVEMENTS: Academic Program Proposed Improvements
☐ New degree*
☐ New major*
☐ New curriculum*
☐ New concentration*
☐ New certificate*
☐ New minor*
☐ Deletion*
☐ Revised major
☐ Revised minor
☐ Admission requirements
☐ Graduation requirements
☐ Change in Title
☐ Transfer

☐ Other (explain**)
** Other:

Title of degree, curriculum, major, minor, concentration, or certificate: MEGJ

Chair, Department Curriculum Committee: ____________________________ Date ____________

CHECKLIST FOR DEPARTMENT CHAIRS/DIRECTORS
☐ For new programs and other changes that have resource implications, the dean has been consulted.
☐ When appropriate, letters of support from department faculty are attached.
☒ When appropriate, letters of support from other departments in the same college are attached.
☐ When appropriate, letters of support from other college deans, whose programs/courses may be affected by the change, are attached.
☐ The proposal has been reviewed by HIGE for possible implications for international student enrollment.
☐ The proposal is consistent with the departmental assessment plan, and identifies measurable learning outcomes for assessment.
☐ Detailed resource plan is attached where appropriate.
☐ All questions attached have been completed and supporting documents are attached.
☐ The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Chair/Director: ____________________________ Date ____________

CHECKLIST FOR COLLEGE CURRICULUM COMMITTEE
☐ The academic quality of the proposal and the faculty involved has been reviewed.
☐ Detailed resource plan is attached where appropriate.
☐ Consistency between the proposal and the relevant catalog language has been confirmed.
☐ The proposal has been reviewed for effect on students transferring from Michigan community colleges. Detailed information on transfer articulation must be included with undergraduate proposals.
☐ Consistency between the proposal and the College and department assessment plans has been confirmed.
☐ Consistency between the proposal and the College and department strategic plans has been confirmed.
☐ All questions attached have been completed and supporting documents are attached.
☐ The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Chair, College Curriculum Committee: ____________________________ Date ____________

Revised Sept. 2018. All previous forms are obsolete and should not be used.
CHECKLIST FOR COLLEGE DEANS

☐ For new programs and proposed program deletions, the provost has been consulted.

☐ For new programs, letter of support from University Libraries Dean indicating library resource requirements have been met.

☐ When appropriate, letters of support from other college faculty and/or chairs are attached.

☐ When appropriate, letters of support from other college deans, whose programs/courses may be affected by the change, are attached.

☐ The proposal has been reviewed for implications for accreditation, certification, or licensure.

☐ Detailed resource plan is attached where appropriate.

☐ All questions attached have been completed and supporting documents are attached.

☐ The proposal is written and complete as outlined in the Faculty Senate guidelines and the curriculum change guides.

Dean: ____________________________ Date: ____________________________

FOR PROPOSALS REQUIRING REVIEW BY:
GSC/USC; EPGC, GRADUATE COLLEGE, and/or FACULTY SENATE EXECUTIVE BOARD

☐ Return to Dean

☐ Forward to: ____________________________ Curriculum Manager: ____________________________ Date: ____________________________

☐ Approve ☐ Disapprove *needs review by
Chair, GSC/USC: ____________________________ Date: ____________________________

☐ Approve ☐ Disapprove
Chair, EPGC: ____________________________ Date: ____________________________

☐ Approve ☐ Disapprove
Graduate College Dean: ____________________________ Date: ____________________________

☐ Approve ☐ Disapprove
Faculty Senate President: ____________________________ Date: ____________________________

☐ Approve ☐ Disapprove *needs review by
Provost: ____________________________ Date: ____________________________

Revised Sept. 2018. All previous forms are obsolete and should not be used.
1. Explain briefly and clearly the proposed improvement:

Remove CS 1022, CS 1023, IEE 3090 from the list of required courses in mechanical engineering. Add CS 1200 as a required course.

2. Rationale. Give your reason(s) for the proposed improvement.

ME students need a higher level of knowledge in computer programming. Instead of a 1 cr-hr course (CS 1022 or 1023) they will take a 3 cr-hr course (CS 1200). By removing also IEE 3090 (2 cr-hr economics course), this upgrade is achieved without affecting the total number of cr-hr for graduation. An accredited mechanical engineering program does not need the economics course.

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.

The CS changes are endorsed by the CS department. The IEE change is coordinated with the IME department.

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

The AE program in our department has already adopted these changes. The proposed change for the ME program will better streamline our undergraduate programs in terms of requirements, advising and internal transfers.

5. Alignment with college’s and department’s strategic plan, mission, and vision.

No change.

6. 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.

Students will take one course instead of two. It will improve their course scheduling. Also, there is no effect on number of credit hours for graduation.

7. 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?

The changes will significantly upgrade the education of our students in computer programming. In today’s engineering, this is very beneficial to the professional preparation of our students.

8. Effects on resources. Explain how your proposal would affect department and University resources, including faculty, equipment, space, technology, and library holdings. If proposing a new program, include a letter and/or email of support from the university libraries affirming that the library resource issues have been reviewed. Tell how you will staff additions to the program. If more advising will be needed, how will you provide for it? What will be the initial one-time costs and the ongoing base-funding costs for the proposed program? (Attach additional pages, as necessary.)

The CS department is in favor of implementing the change.

9. List the learning outcomes for the revised or proposed major, minor, or concentration. The department will use these outcomes for future assessments of the program.

N/A

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

It is a result of internal assessment of the quality and progress of our curriculum.

11. (Undergraduate proposals only) Describe in detail how this change affects transfer articulation for Michigan community colleges. 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

Revised Sept. 2018. All previous forms are obsolete and should not be used.
college guidelines. Department chairs should seek assistance from college advising directors or from the admissions office in completing this section.

**No effect**

12. Please offer both “Current Catalog Language” and “Proposed Catalog Language” if there is to be a change in the catalog description for a given program. For the “current” language, please copy and paste relevant language from the most current catalog and for the “proposed” language, please share the exact proposed new catalog language. As possible, bold or otherwise note the key changes in the new proposed catalog language.

**Current catalog language** (pp. 465-466):

...  
Second Semester (16 hours)  
General Education Credits: 3 hours (Pre-Engineering requirement)  
CS 1022 - Introduction to Engineering Computing 2: Mathematical Software Credits: 1 hour  
OR  
CS 1023 - Introduction to Engineering Computing 3: Computer Programming Credits: 1 hour (Pre-Engineering requirement)  
MATH 1230 - Calculus II Credits: 4 hours or  
MATH 1710 - Calculus II, Science and Engineering Credits: 4 hours (Pre-engineering requirement)  
ME 2615 - Introduction to Mechanical Engineering Credits: 3 hours  
PHYS 2050 - University Physics I Credits: 4 hours (Pre-engineering requirement)  
PHYS 2060 - University Physics I Laboratory Credits: 1 hour (Pre-engineering requirement)  
...  
Eighth Semester (16 to 18 hours)  
ME Elective Credits: 3 to 4 hours  
ME Elective Credits: 3 to 4 hours  
General Education Credits: 3 hours  
General Education Credits: 2 hours  
IEE 3090 - Engineering Economy for Mechanical Engineers Credits: 2 hours  
ME 4800 - Mechanical and Aerospace Engineering Project Credits: 3 hours

**Proposed catalog language:**

...  
Second Semester (18 hours)  
General Education Credits: 3 hours (Pre-Engineering requirement)  
CS 1200 - Programming in C for Engineers Credits: 3 hours (Pre-Engineering requirement)  
MATH 1230 - Calculus II Credits: 4 hours or  
MATH 1710 - Calculus II, Science and Engineering Credits: 4 hours (Pre-engineering requirement)  
ME 2615 - Introduction to Mechanical Engineering Credits: 3 hours  
PHYS 2050 - University Physics I Credits: 4 hours (Pre-engineering requirement)  
PHYS 2060 - University Physics I Laboratory Credits: 1 hour (Pre-engineering requirement)  
...  
Eighth Semester (14 to 16 hours)  
ME Elective Credits: 3 to 4 hours  
ME Elective Credits: 3 to 4 hours  
General Education Credits: 3 hours  
General Education Credits: 2 hours  
ME 4800 - Mechanical and Aerospace Engineering Project Credits: 3 hours

Revised Sept. 2018. All previous forms are obsolete and should not be used.
ECE has agreed to the changes, with reservations. However, those reservations are from Brad and not the ECE faculty. We plan to go ahead with the proposed changes with implementation beginning Fall 2019.

Steve

Dr. Steven M. Carr
Professor and Chair
Department of Computer Science
Western Michigan University
1903 W. Michigan Ave.
Kalamazoo MI 49008-5466
269-276-3101

Steve and Ala,

I am following up on the status of the revisions to CS1200. I remember last time we met with Ala, he was going to discuss the changes that were discussed with the MAE department with ECE to see if they are willing to go along. Has this been done? Do we have an agreement on the new, revised CS1200 course?

If so, then we can prepare our fall curriculum proposals for removing CS1022/1023 from our ME curriculum and replacing it with CS1200. This also will result in removal of another course (there is a domino effect).

Let me know please.

Thank you,
Koorosh
Got it. Thank you Koorosh. Steve

On 9/25/2018 3:57 PM, Koorosh Naghshineh wrote:

Hi Steve,

I am writing this email to notify you that the ME curriculum committee will have a proposal sent to CCC to eliminate IEE3090 as a required class from the ME curriculum. We will talk to Tim next week about the possibility of bringing this course back as an Essential Studies class.

Thanks,
Koorosh

Koorosh Naghshineh, Ph.D., P.E.
(pronounced nag-she-neh)
Professor and Chair
Mechanical and Aerospace Engineering Department
College of Engineering and Applied Sciences, Room F-234
Western Michigan University
1903 West Michigan Avenue
Kalamazoo, MI 49008-5343
Office Phone: (269)276-3292
Fax: (269)276-3421
Email: koorosh.naghshineh@wmich.edu
http://homepages.wmich.edu/~naghshin

--

Steven E. Butt
Professor and Chairman
Departments of:
Industrial and Entrepreneurial Engineering & Engineering Management (IEE&EM);
Engineering Design, Manufacturing, and Management Systems (EDMMS)
Parkview Campus (F-232), Mailstop: 5336
Western Michigan University
Kalamazoo, MI 49008-5336
Phone: (269) 276-3356
Fax: (269) 276-3353
E-mail: steven.butt@wmich.edu