

**MICHIGAN STATE
UNIVERSITY**

January 2, 2013

MEMORANDUM

TO: Dr. Douglas Estry, Associate Provost for Undergraduate Education
and Dean of Undergraduate Studies

FROM: Dr. Linda O. Stanford, Associate Provost for Academic Services

RE: Request to Change the Graduation Requirements for All Majors in the
College of Engineering

For Transmittal to the University Committee on Undergraduate
Education (UCUE)

The request referenced above is being sent to you for action by the University
Committee on Undergraduate Education (UCUE).

UCUE Response Requested:

Please ask the UCUE to consider the request referenced above. Please mail the
related materials referenced under the heading Attachments at the end of this
memorandum to the members of the UCUE.

The UCUE alone will consider this request.

If you have any questions about this memorandum or the attached materials, please call
me at 5-8420.

Thank you for your help.

Attachments:

1. Request to Change the Graduation Requirements for All Majors in the
College of Engineering



**University
Curriculum and
Catalog**

Hannah Admin. Building
426 Auditorium Road
Room 176
East Lansing, MI 48824

517-355-8420
Fax: 517-353-1935

s:\share\lucueegrgradreq

View a Program		Main Menu
Joy Speas, RO	Tuesday, 12/11/2012	
Program Name: Engineering - Graduation Requirements Degree: BS Sequence Number: 5	Program Request ID: 2362	
Effective Dates: Fall 2013 - Open Status: Interim Initial Action: Change		
Requested Date: 12/7/2012 9:45:51 AM		
<p>1. Department/School/College: 16256 College of Engineering</p> <p>2. Name of Program: Engineering - Graduation Requirements</p> <p>3. Name of Degree: BS</p> <p>4. Type of Program: Major</p> <p>5. Effective Start Semester: Fall 2013</p> <p>6. Target student audience for the program: Undergraduate engineering students</p> <p>7. Enrollment: What is the expected enrollment per year: 700 What is the minimum enrollment acceptable: 400</p> <p>8. Source of budget for the program: To align academic planning and curricular change, ALL requests for NEW funds must be included in the College's annual planning letter. Provost approval of new funds and the effective date for the new program must align. If funding is not approved, then the program request will not be forwarded to Faculty Senate. College reallocation If new funds, was this request included in the College's annual planning letter? Indicate yes or no. If no, then this is a department or college fund reallocation (If the program is implemented, no additional resources are required.).</p> <p>9. Projected Costs as compared to other programs in unit: Same</p> <p>10. Staff requirement: How many additional staff will be required: 0 Who will provide the primary instruction. Describe any external linkages(industry, government, etc.):</p>		

11. Will additional equipment be required:

Approximate cost: 0

Source of funding:

12. Will additional library materials be required:

Approximate cost: 0

Source of funding: current resources are sufficient

13. Will additional space be required:

Type:

Approximate amount:

14. If the program requirements contain a named concentration, do you wish for the concentration to be noted on the student's transcript?:

No

15. Detailed Description:

1. The University requirements for bachelor's degrees as described in the Undergraduate Education section of the catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Computer Science and the Bachelor of Science degree in Applied Engineering Sciences; and 128 credits, including general elective credits, are required for the Bachelor of Science degree in the other Engineering majors.

Students who are enrolled in majors leading to the Bachelor of Science degree in the College of Engineering may complete an alternative track to Integrative Studies in Biological and Physical Sciences that consists of the following courses:

- a. One of the following courses: Biological Science 161; Plant Biology 105; Entomology 205; Microbiology and Molecular Genetics 201, 301; Physiology 250; Zoology 141.
- b. Two of the following courses: Chemistry 141, Chemistry 151, Physics 183 or 183B, Physics 184.
- c. One of the following laboratory courses: Plant Biology 106; Chemistry 161; Physics 191.

Credits earned in the alternative track may also be counted toward college and major requirements for the Bachelor of Science degree.

2. The requirements of the College of Engineering for the Bachelor of Science degree that are listed below:
 - a. Mathematics 132, 133, 234, and 235. Computer Science, and Applied Engineering Sciences majors are not required to complete Mathematics 235.
 - b. Chemistry 141 or 151. Computer Science majors are not required to complete Chemistry 141 or 151.

- c. Physics 183 or 183B and 184.
- d. Engineering 102. Computer Science, Computer Engineering, and **Electrical and Computer** Engineering majors are not required to complete Engineering 102.
- e. Engineering 100.

Students who are enrolled in bachelor's degree programs in the College of Engineering may elect a Specialization in Environmental Studies. For additional information, refer to the *Specialization in Environmental Studies* statement in the *College of Natural Science* section of this catalog.

Students who are enrolled in the Bachelor of Science Degree in Computer Science in the College of Engineering may elect a Specialization in Game Design and Development. For additional information, refer to the *Specialization in Game Design and Development* statement in the *Department of Telecommunication, Information Studies and Media* section of this catalog.

Students who are enrolled in bachelor's degree programs in the College of Engineering may elect a Specialization in Information Technology. For additional information, refer to the *Specialization in Information Technology* statement in *The Eli Broad College of Business* section of this catalog.

16. Are there admissions requirements for this program?:

Grade or grade-point average requirements and if so in which course(s), portfolio requirement, audition, essay, etc. If there are not admission requirements other than those required by the University policy indicate "none".

no change

17. Type(s) of change(s):

college requirements

18. Students who will be affected by the proposed changes:

Electrical Engineering Students

19. Will the proposed change(s) have a negative impact on students? If so, which ones?:

No.

Describe impact and explain what accommodations will be made: We will provide a one year transition offering of CSE 251 for affected students.

20. Reason(s) for change(s):

Change in requirements: Electrical Engineering majors need a different programming language.

DEPARTMENT LEVEL APPROVAL STATUS

Approved: College of Engineering
12/11/2012 10:24:34 AM by Jamie Ramos for Thomas F. Wolff, Associate Dean

Comments: Please process at the same time as the Electrical Engineering Program change.

COLLEGE LEVEL APPROVAL STATUS

Approved: College of Engineering
12/11/2012 10:24:45 AM by Jamie Ramos for Thomas F. Wolff, Associate Dean

Comments: Please process at the same time as the Electrical Engineering Program change.

© 2012 Office of the Registrar, Michigan State University Board of Trustees. East Lansing, MI 48824

MSU is an affirmative-action, equal-opportunity employer.

Graduation Requirements for All Majors

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of the catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Computer Science and the Bachelor of Science degree in Applied Engineering Sciences; and 128 credits, including general elective credits, are required for the Bachelor of Science degree in the other Engineering majors.

Students who are enrolled in majors leading to the Bachelor of Science degree in the College of Engineering may complete an alternative track to Integrative Studies in Biological and Physical Sciences that consists of the following courses:

- a. One of the following courses: Biological Science 161; Plant Biology 105; Entomology 205; Microbiology and Molecular Genetics 201, 301; Physiology 250; Zoology 141.
- b. Two of the following courses: Chemistry 141, Chemistry 151, Physics 183 or 183B, Physics 184.
- c. One of the following laboratory courses: Plant Biology 106; Chemistry 161; Physics 191.

Credits earned in the alternative track may also be counted toward college and major requirements for the Bachelor of Science degree.

2. The requirements of the College of Engineering for the Bachelor of Science degree that are listed below:
 - a. Mathematics 132, 133, 234, and 235. Computer Science, and Applied Engineering Sciences majors are not required to complete Mathematics 235.
 - b. Chemistry 141 or 151. Computer Science majors are not required to complete Chemistry 141 or 151.
 - c. Physics 183 or 183B and 184.
 - d. Engineering 102. Computer Science, Computer Engineering, and Electrical and Computer Engineering majors are not required to complete Engineering 102.
 - e. Engineering 100.

Students who are enrolled in bachelor's degree programs in the College of Engineering may elect a Specialization in Environmental Studies. For additional information, refer to the *Specialization in Environmental Studies* statement in the *College of Natural Science* section of this catalog.

Students who are enrolled in the Bachelor of Science Degree in Computer Science in the College of Engineering may elect a *Specialization in Game Design and Development*. For additional information, refer to the *Specialization in Game Design and Development* statement in the *Department of Telecommunication, Information Studies and Media* section of this catalog.

Students who are enrolled in bachelor's degree programs in the College of Engineering may elect a *Specialization in Information Technology*. For additional information, refer to the *Specialization in Information Technology* statement in *The Eli Broad College of Business* section of this catalog.