

# BLENDING BS/MS IN MECHANICAL ENGINEERING

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## In Workflow

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## Approval Path

1. Thu, 19 Sep 2019 21:25:37 GMT  
Akihiko Kumagai (akuma): Approved for ME Committee Chair
2. Thu, 19 Sep 2019 21:26:24 GMT  
Akihiko Kumagai (akuma): Approved for ME Chair
3. Fri, 27 Sep 2019 16:37:12 GMT  
Troy Topping (troy.topping): Approved for ECS College Committee Chair
4. Fri, 27 Sep 2019 19:18:54 GMT  
Kevan Shafizadeh (kevan): Approved for ECS Dean

## History

1. May 2, 2018 by clmig-jwehrheim

Date Submitted: Mon, 16 Sep 2019 23:36:39 GMT

**Viewing: Blended BS/MS in Mechanical Engineering**

**Last approved: Wed, 02 May 2018 13:44:30 GMT**

**Last edit: Fri, 27 Sep 2019 16:36:43 GMT**

Changes proposed by: Troy Topping (102067379)

**Academic Group: (College)**

Engineering & Computer Science

**Academic Organization: (Department)**

Mechanical Engineering

**Catalog Year Effective:**

2020-2021 Catalog

**Individual(s) primarily responsible for drafting the proposed degree major program:**

Name (First Last)	Email	Phone 999-999-9999
Troy Topping	troy.topping@csus.edu	916-206-0255

**Type of Program Proposal:**

Major

**Program Change Type:**

Non-Substantive

**Title of the Program:**

Blended BS/MS in Mechanical Engineering

**Designation: (degree terminology)**

Bachelor of Science

**Briefly describe the program proposal (new or change) and provide a justification:**

The total units for the program need to be changed from 153 to 150. When the program was originally proposed, the ME Department was concurrently working to reduce the units for the BS ME to 122. But, the units were still at 123, when this proposal went through. Now, the BS ME requires 122 units. The unit total of 122 reflects what should be required if a student opts out of the Blended Program and decides to take a BS in Mechanical Engineering (described below in Program Requirements). If the student completes the Blended Program, they are using 8 units of graduate coursework taken while still classified as an undergraduate. These include ME 209 (2 units) and 6 units of ME 2XX or ENGR 2XX course work. Since the number of units required to complete a BS degree can be 120 and the number of units to complete a Master's is 30, the total should be 150 for the Blended Masters Program. This aligns with Coded Memorandum AA-2-12-01.

The Blended BS/MS in Mechanical Engineering needs to be updated to reflect this. BS is 120 + MS is 30 = 150.

Also, there was a unit typo in the opt out description going back to a unit count from previous years. This needs to be changed from 129 to 122.

**Objectives of the degree program:**

1. Will enter professional employment at an advanced level and/or Ph.D. programs in the following areas of mechanical engineering practice: aerospace systems, design and dynamic systems, manufacturing, materials science engineering, and thermal and fluids systems.
2. Will use knowledge of the principles of science, mathematics, and engineering, to identify, formulate, and solve problems in mechanical engineering.
3. Will apply creativity in the design of systems, components, or processes to meet desired needs.
4. Will communicate effectively through speaking, writing, and graphics.

**University Learning Goals**

**Undergraduate Learning Goals:**

Competence in the disciplines  
Knowledge of human cultures and the physical and natural world  
Integrative learning  
Personal and social responsibility  
Intellectual and practical skills

**Will this program be required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?**

No

**Do these changes impact the Smart Planner roadmap?**

No

**Catalog Description:**

**Total units required for Blended BS/MS: 150**

**Program Description**

The Blended BS/MS program in Mechanical Engineering allows qualified students in the BS degree program to simultaneously complete requirements for both the BS and MS degree. Students in the program can progress from undergraduate to graduate status without applying for admission through the Office of Graduate Studies.

**Admission Requirements: Course prerequisites and other criteria for admission of students to the degree major program, and for their continuation in it.**

Students majoring in Mechanical Engineering will be eligible to apply to the program if they meet the following criteria:

- Completion of the WPJ or equivalent, eligible for WI course, and completion of the prerequisites for ME 190 (Project Engineering I);
- Are not double majoring;
- Have not yet enrolled in ME 190; and
- Have a minimum GPA in major courses of 3.00.

As defined by policy <http://www.csus.edu/umannual/acadaff/fsm00010.htm>, a change in units constitutes a substantive change to the program. If your changes constitute a substantive change, please refer back to the "Program Change Type" field above to ensure that "Substantive" is selected.

**Program Requirements: (If new courses are being created as part of a new program, it will be useful to propose courses first.)**

**Eligibility Requirements**

Students majoring in Mechanical Engineering will be eligible to apply to the program if they meet the following criteria:

- Completion of the WPJ or equivalent, eligible for WI course, and completion of the prerequisites for ME 190 (Project Engineering I);
- Have not yet enrolled in ME 190;
- Are not double majoring; and
- Have a minimum GPA in major courses of 3.00.

### **Application Procedures**

Students interested in applying to the Blended BS/MS Program should follow the following procedure:

- Prior to the tenth week during the semester before taking ME 190, students must complete the department application.
- Applicants do not need to pay the graduate program application fee.
- Electronic applications will be submitted to the ME Graduate Coordinator for review.
- Upon acceptance to the program, the department will notify the Registrar's Office and the Office of Graduate Studies in the change in status of the student.

### **Program of Study**

In the two semesters of their senior year, students admitted to the program will be required to take the following graduate classes:

- ME 209 Research Methodology (2 units)
- Two graduate-level courses (200 level) in Mechanical Engineering selected in consultation with the Graduate Coordinator (3 units each)

When the students have completed the core courses for the undergraduate program and have completed the 8 units of graduate courses listed above, they will be converted to graduate status and the BS degree can be awarded. Students will be eligible to receive the MS degree when the remaining requirements for the graduate degree are completed (i.e., the requirements for the MS degree are the same whether taken separately or blended).

During their first semester in graduate status, students will be required to submit a thesis proposal to the ME department and to apply for advancement to candidacy.

### **Opt-Out Option**

Students who wish to opt out after completing all other BS major requirements except the 6 units of ME electives may do so and the two graduate courses will count as two of the electives required in the normal undergraduate program. The total number of units taken for the BS degree will be the same (122 units) as for students who are not in the blended program.

### **Fiscal Impact to Change an Existing Program**

**Indicate programmatic or fiscal impact which this change will have on other academic units' programs, and describe the consultation that has occurred with affected units:**

NA

**Provide a fiscal analysis of the proposed changes:**

NA

**How will the above changes be accommodated within the department/College existing fiscal resources?**

NA

**Will the proposed changes require additional resources?**

No

**What additional space, equipment, operating expenses, library, computer, or media resources, clerical/technical support, or other resources will be needed?**

NA

**Please attach any additional files not requested above:**

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Key: 169