UNIVERSITY *of* WASHINGTON

Michael K. Young
President

June 9, 2014

Dean Elaine Scott
School of Science, Technology, Engineering and Mathematics
University of Washington, Bothell
Box 358538

Dear Elaine:

Based upon the recommendations of the Executive Council, the General Faculty Organization has recommended approval of the revised program requirements for the Bachelor of Science degree in Mechanical Engineering. A copy of the change is attached.

I am writing to inform you that the School of Science, Technology, Engineering, and Mathematics is authorized to specify these requirements beginning autumn quarter 2014.

The new requirements should be incorporated in printed statements and in individual department websites as soon as possible. The *General Catalog* website will be updated accordingly by the Registrar's Office.

Sincerely yours,

Michael K. Young
President

Enclosure

cc: Dr. Steven Collins (with enclosure)
Mr. Robert Corbett (with enclosure)
Ms. Virjean Edwards (with enclosure)

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UNIVERSITY OF WASHINGTON

CREATING AND CHANGING UNDERGRADUATE ACADEMIC PROGRAMS

After college/school/campus review, send a signed original and 1 copy to the Curriculum Office/FCAS, Box 355850.
For information about when and how to use this form: http://depts.washington.edu/uwcr/1503instructions.pdf

College/Campus Bothell	**Department/Unit** School of STEM, Engineering & Mathematics	**Date** April 16, 2014

New Programs

- ☐ Leading to a Bachelor of _____ in _____ degree.
- ☐ Leading to a Bachelor of _____degree with a major in _____.
- ☐ Leading to a _____ Option within the existing major in _____.
- ☐ Leading to a minor in _____

Changes to Existing Programs

- ☐ New Admission Requirements for the Major in _____ within the Bachelor of _____.
- ☐ Revised Admission Requirements for the Major in _____ within the Bachelor of _____.
- X Revised Program Requirements for the Major in Mechanical Engineering within the Bachelor of Science.
- ☐ Revised Requirements for the Option in _____within the major in _____.
- ☐ Revised Requirements for the Minor in _____.

Other Changes

- ☐ Change name of program from _____ to _____.
- ☐ Change delivery method or location of program.
- ☐ New or Revised Continuation Policy for _____.
- ☐ New Honors Requirements for _____.
- ☐ Eliminate program in _____.

Proposed Effective Date: **Quarter:** X Autumn ☐ Winter ☐ Spring ☐ Summer **Year: 20 14**

Contact Person: Steven Collins	Phone: 2-5356	Email: swcollin@uw.edu	Box: 358538

EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE

For new program, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support and departmental handouts. (*Use additional pages if necessary*).

The following three revisions are proposed for the newly approved Bachelor of Science in Mechanical Engineering at the UW Bothell Campus, which will begin Autumn, 2014:

1. Prefix change to the course Fundamentals of Material Science, from B STEM 320 to B ENGR 320, and revision to the course description: The B ENGR prefix has been approved as the designation for general engineering courses open to all students who have fulfilled the course prerequisites. B STEM is not an approved prefix. The course description has been changed so that it reads more clearly and more accurately reflects the course content.
2. Number change to the course Computational Physical Modeling, from B ENGR 210 to B ENGR 310: This course requires Differential Equations, which has course number ST MATH 307, as a prerequisite. The change corrects the problem of having a 300-level course as a prerequisite for a 200-level course.
3. Addition of the course CSS 161, Fundamentals of Computing, as an option in the Computational Analysis & Design category: The current requirements cover 3-D graphical modeling, computational modeling with MATLAB, and drawing, but not fundamentals of computing/programming. Adding this course fills out the category by providing an option for students interested in developing basic programming skills.

OTHER DEPARTMENTS AFFECTED

List all departments/units/ or co-accredited programs affected by your new program or changes to your existing program and acquire the signature of the chair/director of each department/unit listed. Attach additional page(s) if necessary. *See online instructions.

Department/Unit:	Chair/Program Director:	Date:
Department/Unit:	Chair/Program Director	Date:

CATALOG COPY

Catalog Copy as currently written. Include only sections/paragraphs that would be changed if your request is approved. Please cross out or otherwise highlight any deletions.

1. B STEM 320 Fundamentals of Materials Science (5 cr)
Fundamental principles of structure and properties of materials utilized in practice of engineering. Properties of materials are related to atomic, molecular, crystalline structure. Metals, ceramics, multiphase systems, and polymeric materials. Relationships between structure and electrical, mechanical, thermal, chemical properties. Includes laboratory.
Prerequisite: B CHEM 143

2. B ENGR 210 Computational Physical Modeling (5 cr) (NW)

3. The catalog description of the requirements in the Computational Analysis & Design category is currently being written. Reflecting the requirements spelled out in the degree proposal, the draft description now reads: "To fulfill the requirements in the Computational Analysis & Design category, students must take B ENGR 310, B ME 310, and either B ART 121 or B ART 131."

PROPOSED CATALOG COPY

Reflecting requested changes (Include exact wording as you wish it to be shown in the printed catalog. Please underline or otherwise highlight any additions. If needed, attach a separate, expanded version of the changes that might appear in department publications). **Please note:** all copy will be edited to reflect uniform style in the General Catalog.

1. B ENGR 320 Fundamentals of Materials Science (5 cr)
Properties of metals, ceramics, polymers, and composites in relation to their internal subatomic, microscopic, and macroscopic structures. Incorporates materials testing, analysis of failure, and engineering of materials to achieve desired function and performance. Includes laboratory. Prerequisite: B CHEM 143

2. B ENGR 310 Computational Physical Modeling (5 cr) (NW)

3. To fulfill the requirements in the Computational Analysis & Design category, students must take B ENGR 310, B ME 310, and one of the following three courses: B ART 121, B ART 131, or CSS 161.

APPROVALS

Chair/Program Director: Lisa P Scott	Date: 5/6/14
College/School/Campus Curriculum Committee: Suzanne Fitzmier	Date: 5-7-14
Dean/Vice Chancellor:	Date:
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date:

POST TRI-CAMPUS APPROVAL (when needed)

Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date: