



OFFICE OF THE PRESIDENT

January 17, 2013

Interim Dean Judith Ramey
College of Engineering
Box 352180

Dear Judy:

Based on the recommendation of its Subcommittee on Admissions and Programs, the Faculty Council on Academic Standards has recommended approval of the revised admission and program requirements for a Bachelor of Science in Chemical Engineering degree; revised program requirements for the option in Nanoscience and Molecular Engineering within the Bachelor of Science in Chemical Engineering degree; and a revised continuation policy for all programs within the Bachelor of Science in Chemical Engineering degree. A copy of the changes is attached.

I am writing to inform you that the College of Engineering is authorized to specify these requirements beginning spring quarter 2013.

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,

A handwritten signature in black ink, appearing to read "Michael K. Young".

Michael K. Young
President

Enclosure

cc: Mr. Dave Drischell (with enclosure)
Mr. Robert Corbett (with enclosure)
Dr. Deborah H. Wiegand (with enclosure)
Ms. Virjean Edwards (with enclosure CHEME-20121030)

NOV 27 2012



UNIVERSITY OF WASHINGTON

CREATING AND CHANGING UNDERGRADUATE ACADEMIC PROGRAMS

OFFICE USE ONLY
Control #
CHEME-2012-1030

1 copy

After college/school/campus review, send a signed original and 3 copies 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 Engineering/Seattle	Department/Unit Chemical Engineering	Date Oct 30, 2012
New Programs <input type="checkbox"/> Leading to a Bachelor of _____ in _____ degree. <input type="checkbox"/> Leading to a Bachelor of _____ degree with a major in _____. <input type="checkbox"/> Leading to a _____ Option within the existing major in _____. <input type="checkbox"/> Leading to a minor in _____.		
Changes to Existing Programs <input type="checkbox"/> New Admission Requirements for the Major in _____ within the Bachelor of _____. <input checked="" type="checkbox"/> Revised Admission Requirements for the Major in <u>Chemical Engineering</u> within the Bachelor of <u>Science</u> . <input checked="" type="checkbox"/> Revised Program Requirements for the Major in <u>Chemical Engineering</u> within the Bachelor of <u>Science</u> . <input checked="" type="checkbox"/> Revised Requirements for the Option in <u>Nanoscience & Molecular Engr</u> within the major in <u>Chemical Engineering</u> . <input type="checkbox"/> Revised Requirements for the Minor in _____.		
Other Changes <input type="checkbox"/> Change name of program from _____ to _____. <input checked="" type="checkbox"/> New or Revised Continuation Policy for <u>Bachelor of Science in Chemical Engineering (including NME option)</u> . <input type="checkbox"/> Eliminate program in _____.		
Proposed Effective Date: Quarter: <input type="checkbox"/> Autumn <input type="checkbox"/> Winter <input checked="" type="checkbox"/> Spring <input type="checkbox"/> Summer Year: 20 13		

Contact Person: Dave Drischell	Phone: 3-2252	Email: rdd@uw.edu	Box: 351750
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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).

Update continuation policy to reflect change in core courses
 Update proportion of students admitted through direct freshman admission and early admission to reflect future practice
 Update change to additional writing requirement (replacing HCDE 333 with CHEM E 436 and 437)
 Update degree requirement, removing 3cr of Chemistry (CHEM 457, physical chemistry 3), with new CHEM E course focused on molecular engineering, adding 3cr to major requirements/chemical engineering core courses
 Update major requirements/nano and molecular engineering requirement to remove CHEM 461 as replacement option to CHEM E 455

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: <u>Chemistry</u>	Chair/Program Director: <u>[Signature]</u>	Date: <u>11/14/12</u>
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.

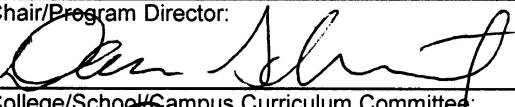



see attachments

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.

see attachments

APPROVALS

Chair/Program Director: 	Date: 11/4/12
College/School/Campus Curriculum Committee: 	Date: 11-20-12
Dean/Vice Chancellor: 	Date: 11/21/12
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair: 	Date: 1/11/13
POST TRI-CAMPUS APPROVAL (when needed)	
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date:

*****Current Catalog Copy*****

Continuation Policy

1. Full-time students must complete 12 or more credits per quarter that are applicable to the BSChE degree. An average of 15 hours per quarter is required to complete the minimum graduation requirements in the conventional 12 quarters.
2. Part-time attendance is possible, subject to approval by the chair of the department. Application for part-time status should be made prior to the first day of the quarter. Students who receive permission to attend part time must complete at least one course each quarter applicable to their degree.
3. A student who has withdrawn from the UW or from a required chemical engineering course or who is dropped for non-payment of fees must obtain approval of the department admissions committee before registering or maintaining preregistration for subsequent chemical engineering courses.
4. Students must obtain a minimum 2.0 grade in CHEM E 260 (or equivalent) and CHEM E 310 to remain in the department. Students who fail to do so are dropped from the department.
5. Students must maintain a quarterly 2.00 GPA. Any students whose quarterly GPA falls below 2.00 is placed on departmental probation.
6. All students must maintain both an overall and a chemical engineering 2.00 GPA. (For chemical engineering courses which are repeated, the chemical engineering GPA is based only on the first time a course is taken.)
7. The minimum passing grade for any course is 0.7. A student may repeat a chemical engineering course only if less than that minimum grade (i.e., a failure) is received in a departmental course.
8. Students admitted to the nanoscience and molecular engineering option (NME) must adhere to all the above criteria. Since NME coursework is offered in specified quarters only, student must enroll in these courses to be considered making satisfactory progress. Students not making satisfactory progress toward the NME option are dropped from that option.

*****Proposed Catalog Copy*****

Continuation Policy

1. Full-time students must complete 12 or more credits per quarter that are applicable to the BSChE degree. An average of 15 hours per quarter is required to complete the minimum graduation requirements in the conventional 12 quarters. Once enrolled in CHEM E 310 students are required to move through the core coursework as a cohort (see the Plan of Study on the dept website); any deviation from the stated plan requires a petition. Students who fail to maintain registration in core coursework are dropped from the department.
2. Part-time attendance is possible, subject to approval by the chair of the department. Application for part-time status should be made prior to the first day of the quarter.

Students who receive permission to attend part time must complete at least one course each quarter applicable to their degree.

3. Students admitted through Direct Freshman Admission or Early Admission are expected to follow the Plan of Study (see dept website) and be prepared to take CHEM E 310 spring quarter of the sophomore year. Prior to autumn quarter of the junior year students are expected to have the following courses complete: CHEM 142, CHEM 152, CHEM 162 (or CHEM 145, 155, 165), CHEM 237 (or 223, 335), CHEM 238 (or 224, 335), MATH 124, 125, 126, 307, 308, (or MATH 134, 135, 136), PHYS 121, PHYS 122, PHYS 123, AMATH 301 (or CSE 142), and English composition. Students who fail to do so are dropped from the department.
4. Students seeking to pursue two or more degrees must submit an academic plan for approval by the department. Once approved, the academic plan will define the number of credits and courses applicable towards the degrees that must be completed each quarter to maintain satisfactory progress. Students may not add a second major after completion of the junior core.
5. A student who has withdrawn from the UW or from a required chemical engineering course or who is dropped for non-payment of fees must obtain approval of the department admissions committee before registering or maintaining preregistration for subsequent chemical engineering courses.
6. Students must obtain a minimum 2.0 grade in CHEM E 310 to remain in the department. Students who fail to do so are dropped from the department.
7. Students must maintain a quarterly 2.00 GPA. Any students whose quarterly GPA falls below 2.00 is placed on departmental probation.
8. All students must maintain both an overall and a chemical engineering 2.00 GPA. (For chemical engineering courses which are repeated, the chemical engineering GPA is based only on the first time a course is taken.)
9. The minimum passing grade for any course is 0.7. A student may repeat a chemical engineering course only if less than that minimum grade (i.e., a failure) is received in a departmental course.
10. Students admitted to the nanoscience and molecular engineering option (NME) must adhere to all the above criteria. Since NME coursework is offered in specified quarters only, student must enroll in these courses to be considered making satisfactory progress. Students not making satisfactory progress toward the NME option are dropped from that option.

*****Current Catalog Copy*****

Direct Freshman Admission

The department enrolls up to ~~40~~ percent of its incoming class directly from high school, prior to completion of University-level prerequisites. Students accepted to the UW who indicate chemical engineering as their preferred major on the freshman application are automatically considered. Competitive applicants have taken or are taking calculus and at least two years of laboratory science (physics, chemistry preferred) in high school. Admission is for autumn quarter only.

*****Proposed Catalog Copy*****

Direct Freshman Admission

The department enrolls up to 30 percent of its incoming class directly from high school, prior to completion of University-level prerequisites. Students accepted to the UW who indicate chemical engineering as their preferred major on the freshman application are automatically considered. Competitive applicants have taken or are taking calculus and at least two years of laboratory science (physics, chemistry preferred) in high school. Admission is for autumn quarter only.

*****Current Catalog Copy*****

Early Admission

The department enrolls up to ~~20~~ percent of its class from students who have taken one year of college-level coursework at the UW. The application is available at www.engr.washington.edu/uapp. Admission is for autumn quarter only. Application deadline is July 1.

Course Requirements: MATH 124, MATH 125, MATH 126; CHEM 142, CHEM 152, CHEM 162; PHYS 121; and 5 credits of English composition, chosen from C LIT 240, ENGL 109-ENGL 110, ENGL 111, ENGL 121, ENGL 131, ENGL 197, ENGL 198, ENGL 199, or ENGL 281.

All courses must be completed prior to the July 1 application deadline.

Credit Requirements: Applicants must be completing their freshman year at the UW and must have completed a minimum 15 credits taken in residence at the UW.

Grade Requirements: Minimum 2.0 grade in each prerequisite course and minimum 2.50 GPA

*****Proposed Catalog Copy*****

Early Admission

The department enrolls up to 30 percent of its class from students who have taken one year of college-level coursework at the UW. The application is available at www.engr.washington.edu/uapp. Admission is for autumn quarter only. Application deadline is July 1.

Course Requirements: MATH 124, MATH 125, MATH 126; CHEM 142, CHEM 152, CHEM 162; PHYS 121; and 5 credits of English composition, chosen from C LIT 240, ENGL 109-ENGL 110, ENGL 111, ENGL 121, ENGL 131, ENGL 197, ENGL 198, ENGL 199, or ENGL 281.

All courses must be completed prior to the July 1 application deadline.

Credit Requirements: Applicants must be completing their freshman year at the UW and must have completed a minimum 15 credits taken in residence at the UW.

Grade Requirements: Minimum 2.0 grade in each prerequisite course and minimum 2.50 GPA

*****Current Catalog Copy*****

Graduation Requirements

180 credits, as follows:

General Education Requirements (104 credits)

1. *Written and Oral Communications (42 credits)*: one 5-credit English composition course from the University list; HCDE 231; HCDE 333 (or department-approved alternative)
2. *Visual, Literary, & Performing Arts (VLPA) and Individuals & Societies (I&S) (24 credits)*: A minimum of 10 credits required in each area
3. *Natural World (68 credits)*
 - a. Physics (15 credits): PHYS 121, PHYS 122, PHYS 123
 - b. Mathematics (24 credits): MATH 124, MATH 125, MATH 126, MATH 307, MATH 308, and MATH 309 (or MATH 390 or IND E 315)
 - c. Chemistry (29 credits): CHEM 142, CHEM 152, CHEM 162, CHEM 237, CHEM 238, CHEM 455, CHEM 457

Major Requirements (71 credits)

1. *Engineering Fundamentals (4 credits)*: AMATH 301 or CSE 142
2. *Chemical Engineering Core Courses (48 credits)*: CHEM E 310, CHEM E 325, CHEM E 326, CHEM E 330, CHEM E 340, CHEM E 435, CHEM E 436, CHEM E 437, CHEM E 465, CHEM E 480, CHEM E 485, CHEM E 486
3. *Molecular and Nanoscience Engineering (3 credits)*: CHEM E 455 (~~highly recommended~~) or CHEM 461
4. *Engineering Elective Courses (16 credits)*: Only one, 1-credit seminar is allowed to count toward engineering electives. A maximum of 9 credits of undergraduate research (CHEM E 299, CHEM E 499, of which no more than 3 credits may be CHEM 299) may count toward engineering electives.

Unspecified Electives (5 credits)

Nanoscience and Molecular Engineering Option Major Requirements (74 credits)

1. *Engineering Fundamentals (4 credits)*: AMATH 301 or CSE 142
2. *Chemical Engineering Core Courses (48 credits)*: CHEM E 310, CHEM E 325, CHEM E 326, CHEM E 330, CHEM E 340, CHEM E 435, CHEM E 436, CHEM E 437, CHEM E 465, CHEM E 480, CHEM E 485, CHEM E 486
3. *Nanoscience and Molecular Engineering Courses (22 credits)*: CHEM E 299, CHEM E 455, CHEM E 499 (3-6 credits, maximum 3 credits from CHEM E 299), NME 220, NME 221, NME 321, NME 421; minimum two additional approved nanoscience and molecular engineering electives. See adviser for list of approved electives.

A minimum 2.00 GPA in core chemical engineering courses, based on the first time each course is taken, is required for graduation.

*****Proposed Catalog Copy*****

Graduation Requirements

180 credits, as follows:

General Education Requirements (101 credits)

1. *Written and Oral Communications (⁸~~12~~ credits)*: one 5-credit English composition course from the University list; HCDE 231. Additional writing credits are built into the major core courses.
2. *Visual, Literary, & Performing Arts (VLPA) and Individuals & Societies (I&S) (24 credits)*: A minimum of 10 credits required in each area
3. *Natural World (65 credits)*
 - a. Physics (15 credits): PHYS 121, PHYS 122, PHYS 123
 - b. Mathematics (24 credits): MATH 124, MATH 125, MATH 126, MATH 307, MATH 308, and MATH 309 (or MATH 390 or IND E 315)
 - c. Chemistry (26 credits): CHEM 142, CHEM 152, CHEM 162, CHEM 237, CHEM 238, CHEM 455

Major Requirements (74 credits)

1. *Engineering Fundamentals (4 credits)*: AMATH 301 or CSE 142
2. *Chemical Engineering Core Courses (51 credits)*: CHEM E 310, CHEM E 325, CHEM E 326, CHEM E 330, CHEM E 340, CHEM E 435, CHEM E 436, CHEM E 437, CHEM E 457, CHEM E 465, CHEM E 480, CHEM E 485, CHEM E 486
3. *Molecular and Nanoscience Engineering (3 credits)*: CHEM E 455
4. *Engineering Elective Courses (16 credits)*: Only one, 1-credit seminar is allowed to count toward engineering electives. A maximum of 9 credits of undergraduate research (CHEM E 299, CHEM E 499, of which no more than 3 credits may be CHEM 299) may count toward engineering electives.

Unspecified Electives (5 credits)

Nanoscience and Molecular Engineering Option Major Requirements (77 credits)

1. *Engineering Fundamentals (4 credits)*: AMATH 301 or CSE 142

2. *Chemical Engineering Core Courses (51 credits):* CHEM E 310, CHEM E 325, CHEM E 326, CHEM E 330, CHEM E 340, CHEM E 435, CHEM E 436, CHEM E 437, CHEM E 457, CHEM E 465, CHEM E 480, CHEM E 485, CHEM E 486
3. *Nanoscience and Molecular Engineering Courses (22 credits):* CHEM E 299, CHEM E 455, CHEM E 499 (3-6 credits, maximum 3 credits from CHEM E 299), NME 220, NME 221, NME 321, NME 421; minimum two additional approved nanoscience and molecular engineering electives. See adviser for list of approved electives.

Unspecified Electives (2 credits)

A minimum 2.00 GPA in core chemical engineering courses, based on the first time each course is taken, is required for graduation.