



UNIVERSITY OF WASHINGTON

OFFICE OF THE PRESIDENT

Mark A. Emmert, President

May 15, 2007

Dean Matthew O'Donnell
College of Engineering
Box 352180

Dear Matthew:

Based on the recommendation of its Subcommittee on Admissions and Programs, the Faculty Council on Academic Standards has recommended approval of the revised admissions requirements for a Bachelor of Science in Materials Science and Engineering degree. A copy of the changes is attached.

I am writing to inform you that the department of Materials Science and Engineering is authorized to specify these requirements beginning winter quarter 2008.

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 "Mark".

Mark A. Emmert
President

Enclosure

cc: Kathleen Elkins (with enclosure)
Mr. Robert Corbett (with enclosure)
Dr. Deborah H. Wiegand (with enclosure)
Todd Milton, J.D. (with enclosure MSE-20070320)



UNIVERSITY OF WASHINGTON

CREATING AND CHANGING UNDERGRADUATE ACADEMIC PROGRAMS

OFFICE USE ONLY

Control #

MSE-200 70320

After college/school review, send a signed original and 8 copies to FCAS, Box 355850.

For information about when and how to use this form: <http://depts.washington.edu/uwcr/1503instructions.pdf>

College Engineering	Department or Unit MS E	Date 3/20/07
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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 MS E within the Bachelor of Science
- Revised Program Requirements for the Major in _____ within the Bachelor of _____
- Revised Requirements for the Option in _____ within the major in _____
- Revised Requirements for the Minor in _____

Other Changes

- Change name of program from _____ to _____
- New or Revised Continuation Policy for _____
- Eliminate program in _____

Proposed Effective Date:

Quarter: Autumn Winter Spring Summer Year: 20_08

Contact Person Kathleen A. Elkins	Contact's Phone 206 - 616 - 6581	Contact's Email kelkins@u.washington.edu
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EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE

For new programs, 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 College of Engineering is increasing the number of direct freshmen admissions to engineering departments as each department develops curriculum, activities, and strategies for incorporating students in the major department. The Materials Science and Engineering Department, after collecting much information from other engineering departments already admitting freshmen, has admitted a sample group of freshmen for Autumn 2007 and would like to be able to continue admitting up to 20% of its undergraduate class through direct freshmen admission. This direct offer allows the department and the university to bring more highly qualified freshmen applicants to our campus and allows our faculty to provide coursework, research exposure, and other activities to retain them in the department and college through the bachelor's degree.

MSE
Adding DFA

CATALOG COPY

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

"A diverse student body adds an important element to the education of all students in the program. All students who meet the minimum admission requirements will be considered for admission.

All applicants have the right to petition and appeal the decision of the department.

1. Early Admission Group (EAG)
 - a. Open to students enrolled at the UW.
 - b. Completion of the following courses prior to application: MATH 124, 125, 126; 10 credits of physical science courses plus accompanying laboratory at the level of PHYS 121, 122, 123 or CHEM 142, 152; and 5 credits of English composition.
 - c. A minimum grade of 2.0 in each prerequisite course and a minimum cumulative GPA of 2.50. At least 15 of the credits must have been taken at the UW.
 - d. Application deadline for early admission is July 1 for autumn quarter only.
2. Upper-Division Admission Group (UAG)...."

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)

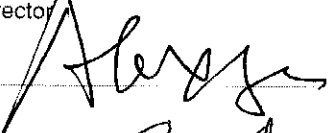
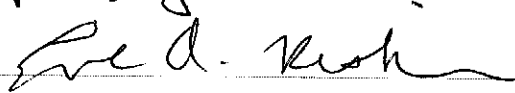

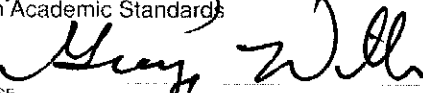
(to be added)

- "1. Direct Freshmen Admission (DFA)
 - a. Open to freshmen students formally admitted to the UW.
 - b. High school GPA of 3.7 or higher; SAT (or equivalent) scores of 1300 or higher.
 - c. Indication on the application that Materials Science and Engineering is the first choice for a major."

(numbering change only)

2. Early Admission (EAG)....
3. Upper-Division Admission Group (UAG)....

SIGNATURES (required)

Chair/Program Director		Date	4/10/07
Dean		Date	4-25-07
College Committee		Date	4/24/07
Faculty Council on Academic Standards		Date	5/11/07



Have the ability to communicate effectively, orally and in writing, the concepts and results of engineering investigations to both technical and non-technical audiences

Use specific program educational objectives are consistent with the mission statements above, and provide specific means for disseminating knowledge through innovative learning in a high quality educational program. The objectives provide a means for student to develop their materials knowledge in the context of the fundamentals of science, mathematics, and engineering

Student Associations: Keramos (materials honor society), American Ceramic Society (ACerS); ASM/TMS (the joint student chapter of ASM International and TMS); Society for the Advancement of Materials and Process Engineering (SAMPE).

Scholarship Opportunities: Materials Science and Engineering students that are interested in paid scholarship experiences should contact the Engineering Co-op Program, 301 Loew Hall, Box 2180, 206-543-8711, coop@enr.washington.edu.

Combined B.S./M.S. Degree Program

The goal of the combined B.S./M.S. program in Materials Science and Engineering is to provide a more direct route to the master's degree for well-qualified undergraduate students who wish for more in-depth graduate-level work in preparation for work in industry or for a Ph.D. program. This program merges the B.S. and M.S. programs of the MSE department to create a more efficient and continuous academic program that leads directly to the Master of Science degree. The program is designed to enable students to earn both the B.S. and M.S. degrees in three years. This program is available to students after they are admitted to the department. Information about the B.S./M.S. program is available from the department Web site.

Undergraduate Honors Program

Students that have been admitted to the undergraduate program with at least a 3.30 cumulative GPA and 3.50 departmental GPA will be invited into the department's honors program. These are students that enter the honors program after they are admitted to the department and would receive "Honors with Distinction." This honors notation appears on the transcript and diploma. Further information about the SE undergraduate honors program is available on the departmental Web site.

Bachelor of Science in Materials Science and Engineering

Admission Requirements: Application information, forms, and deadlines are available from the department's academic counselor along with a detailed undergraduate planbook for the program. Applications for admission are also available from the College of Engineering Web site at www.enr.washington.edu/score/admissions.html. Students are urged to consult with the department academic counselor early in their University career regarding plans of study in preparation for their major and for assistance in preparing their application for admission to the program.

Admission to the department is competitive, and completion of the requirements does not guarantee admission.

The diverse student body adds an important element to the education of all students in the program. All students who meet the minimum admission requirements will be considered for admission.

All applicants have the right to petition and appeal the decision of the department.

1. Early Admission Group (EAG):

- a. Open to students enrolled at the UW.
- b. Completion of the following courses prior to application: MATH 124, 125, 126; 10 credits of physical science courses plus accompanying laboratory at the level of PHYS 121, 122, 123, or CHEM 142, 152; and 5 credits of English composition.
- c. A minimum grade of 2.0 in each prerequisite course and a minimum cumulative GPA of 2.50. At least 15 of the credits must have been taken at the UW.
- d. Application deadline for early admission is July 1 for autumn quarter only.

2. Upper-Division Admission Group (UAG):

- a. Completion of 64 credits with a minimum cumulative GPA of 2.50 and a minimum grade of 2.0 in each prerequisite course.
- b. Completion of the following courses prior to admission: MATH 124, 125, 126, 307; CHEM 142, 152; PHYS 121, 122; 5 credits of English composition; CSE 142, MSE 170. Strongly recommended before admission are A A 210, CEE 220, and T C 231.
- c. Applications for admission are accepted autumn and spring quarters only.

Graduation Requirements:

College of Engineering General Education requirements: (1) Visual, Literary, and Performing Arts (VLPA) and Individuals and Societies (I&S): 24 credits to include 10 credits of VLPA courses, 10 credits of I&S courses, and an additional 4 credits of either VLPA or I&S courses (the 24 credits of VLPA/I&S must include an 8-credit in-depth sequence requirement; see adviser for more details); (2) Natural Science: 31 credits to include CHEM 142, 152, PHYS 121, 122, 123, and two of the following classes: PHYS 224, 225, CHEM 162, 223, 224, 237, 238, 455, 457; (3) Mathematics: 24 credits to include MATH 124, 125, 126, 307, either 308 or 318, and one of the following: MATH 309, 324, IND E 315, or STAT 390; (4) Oral and Written Communication: 12 credits to include one 5-credit English composition class from the UW-approved list, T C 231, and T C 333; (5) Engineering Fundamentals: 24 credits to include CSE 142, MSE 170, A A 210, CEE 220, and two additional courses from the following: E E 215, M E 123, M E 230, IND E 250, CHEM E 260.

Materials Science and Engineering Core Requirements: 49 credits total. For current list of acceptable classes, visit the department's Web site or see the department's academic counselor.

Technical Electives: 16 credits total. For a current list of acceptable classes, visit the department's Web site or see the department's academic counselor.

To graduate with a B.S. in Materials Science and Engineering a student must earn a total of 180 credits with a cumulative UW GPA of at least 2.00 and a departmental cumulative GPA of at least 2.00. For a complete description of the current requirements, please consult the undergraduate degree planbook available from the academic counselor or visit the department's Web site.

A variety of financial aid is available to students in materials science and engineering. In addition to need-based aid provided through the University's Office of Student Financial Aid, companies and individuals with interest in developing materials science

and engineering students have provided scholarships for students at all levels who have been admitted to the program. Specific information and application forms are available from the academic counselor in 302 Roberts.

Minor

Students majoring in other departments at the UW can receive a minor in Materials Science and Engineering.

Minor Requirements: 30 credits to include a set of approved 300- and 400-level MSE courses with a minimum grade of 2.0 in each. The minor-program course sequence is offered with specialization in ceramics, composites, electronic materials, metallurgy, or structural materials. The required/recommended courses for each specialization are different. Contact the department's academic counselor for further details.

The following courses serve as prerequisites for the departmental courses in the minor. It is recommended that students take these courses before beginning the minor program in materials science. In addition, although a formal application is not required for the minor program, it is recommended that the student contact the department's academic counselor for assistance in establishing a minor program to suit the student's needs.

MATH 124, 125, 125, 307, and 308 or 318; CHEM 142 or 145, 152 or 155; PHYS 121, 122, 123; MSE 170; English composition.

Graduate Program

For information on the Department of Materials Science and Engineering's graduate program, see the graduate and professional volume of the General Catalog or visit the General Catalog online at www.washington.edu/students/gencaf/.

Faculty

Chair

Rajendra Kumar Bordia

Professors

Allan, G. Graham * 1966, (Adjunct); PhD, 1956, University of Glasgow (UK), DSc, 1971, University of Strathclyde (UK); creativity and innovation.

Anderson, Donald 1947, (Emeritus); BS, 1941, University of Illinois; mining and exploration.

Archbold, Thomas F. * 1961, (Emeritus); PhD, 1961, Purdue University; corrosion, thermal diffusion, substructure characterization, fatigue.

Dunham, Scott T. * 1999, (Adjunct); MS, 1980, PhD, 1985, Stanford University; modeling and simulation of microfabrication processes and device behavior.

Fischbach, David B. * 1969, (Emeritus); PhD, 1955, Yale University; structure and properties of carbons graphite, other non-oxide ceramics, and composite materials.

Ghose, Subrata * 1972, (Adjunct); MS, 1955, Calcutta University (India), PhD, 1959, University of Chicago; mineral physics, crystallography, mineralogy.

Inoue, Kanryu * 1993, (Research); PhD, 1977, Osaka City University (Japan); mechanical, physical, and magnetic properties, phase transformations of intermetallic alloys.