College of Engineering
Honors Programs:
College and Departmental

1999-2001

With

Honors

Student Handbook

University of Washington
Seattle, Washington
Welcome

To the College of Engineering
Departmental Honors Program

If you have any questions regarding the information provided in this handbook, please contact your departmental advisor or the advising staff in the College of Engineering Advising Center – Loew Hall 356.

Table of Contents

Introduction – History of the Program ...................... 1
Administration ................................................................ 2
Minimum GPA for Honors ........................................... 3
Description of College & Dept. Honors Programs ... 4
   (1) College Honors Requirements ....................... 5
   Arts & Sciences Core Courses .............................. 6
   (2) Departmental Honors Requirements ............... 7
Number of Credits Required ...................................... 8
Registration for Honors Courses .............................. 8
ENGR 499H/Department 499H Special Projects .... 8
Ad Hoc Honors .......................................................... 9
Regulations Governing Continuation ..................... 10
Scholarships ............................................................ 11
Scholarship Recognition – Dean's List .................... 11
Graduation and Transcripts ..................................... 12
Application for Graduation .................................... 12
Baccalaureate Honors .............................................. 13
The Honors Lounge .................................................. 13
Mailings to Honors Students ................................. 13
Withdrawal from Program .................................... 13
Honors Societies ..................................................... 14-15
Honors Advisors .................................................... 16
**Handbook for Honors Students**

For College of Engineering students who have been admitted to their departments, this Handbook supplements the departmental Bachelor's Degree Planbook and discusses the role of an Honor Student in the Program.

For freshmen who are invited to join the Arts & Sciences Honors Program and who plan to enroll in an engineering department, this Handbook will provide an overview of College of Engineering Honors Program Requirements and assist you in planning your entire undergraduate Honors course curriculum.

**History of the Honors Program**

The College of Engineering Honors Program began in 1961 and was continued through 1972. The goal of this honors program was "to provide an opportunity for the gifted undergraduate engineering student to develop to his/her fullest extent."

**Autumn 1993 Reinstatement of Honors Program**

In Autumn 1993, the College of Engineering Honors program was reinstated at the University of Washington. Students who were admitted to their departments in Autumn 1992 and invited to join the Honors Program in 1992-93 were the first engineering students to graduate under the then newly reinstated Honors Program.

**Administration**

The College of Engineering Honors Program is administered by the College of Engineering Advising Office, which is located in Room 356 Loew Hall. Additionally, each department in the College of Engineering with an approved Honors degree track has a designated undergraduate advisor to serve as the Departmental Honors Advisor. This Honors advisor provides counsel and information to Honors students in that major. (Honors advisors are listed on page 16 of this handbook). Information and applications for the College of Engineering Honors Program may be obtained from the engineering departments or the Advising Office in Loew.

Freshmen who wish to participate in the Arts and Sciences Honors Program as pre-engineering students should do so through the University Honors Program Office located in Padelford B102, E-mail: uwhonors@u.washington.edu, URL: http://depts.washington.edu/uwhonors/
DESCRIPTION OF THE ENGINEERING HONORS PROGRAMS:  
COLLEGE AND DEPARTMENTAL

Engineering Honors Program
The College of Engineering Honors Program offers outstanding students a course of study designed to provide intellectual challenges in a stimulating learning atmosphere drawing on the resources of a large, diversified University. Students entering the Honors Program become candidates for the degree "With College Honors" or "With Distinction."

"College Honors"  
The College Honors Degree
Pre-Engineering students who participate in the University Honors program may be nominated for the College of Engineering Honors program once they are admitted to engineering departments. These students become candidates for the degree "With College Honors." Completion of the College Honors degree involves both an Honors general education component and advanced Honors work completed after students have been admitted to engineering departments.

"With Distinction"  
The Departmental Honors Degree
Students entering the Honors Program after they are admitted to engineering departments participate in the Departmental Honors Program. These students become candidates for the degree "With Distinction."

Minimum Honors GPA
Honors students must earn a 3.3 UW cumulative GPA and have the following minimum engineering department honors GPA:

<table>
<thead>
<tr>
<th>Discipline</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeronautics &amp; Astronautics</td>
<td>3.5</td>
</tr>
<tr>
<td>Bioengineering</td>
<td>3.6</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>3.3</td>
</tr>
<tr>
<td>Civil and Environmental Engineering</td>
<td>3.5</td>
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<tr>
<td>Computer Science and Engineering</td>
<td>3.5</td>
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<tr>
<td>Electrical Engineering</td>
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<tr>
<td>Industrial Engineering</td>
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<tr>
<td>Materials Science and Engineering</td>
<td>3.5</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>3.5</td>
</tr>
<tr>
<td>Technical Communication</td>
<td>3.5</td>
</tr>
</tbody>
</table>
COLLEGE HONORS PROGRAM REQUIREMENTS

Students who complete this program receive a degree "With College Honors."

College Honors students complete all regular requirements for the undergraduate degree, including the satisfaction of College distribution and proficiency requirements, and the following Honors requirements specific to the College of Engineering "College Honors Program."

GPA Requirements: 3.3 cumulative GPA, minimum Departmental GPA (see page 3), and participation in University Honors program as a pre-engineer.

Arts & Sciences Course Curriculum: Select three 3-quarter sequences from A and B (selecting at least one from each).

A. Visual Literary and Performing Arts (VLPA) and Individuals and Societies (I&S):
   Western Civilization H A&S 251, 252, & 253
   or
   World Civilization H A&S 261, 262, & 263
   or
   History of Western Civilization HIST 111, 112, & 113 (Honors sections)

B. The Natural World
   MATH 134, 135, & 136
   or
   CHEM 145, 155, & 164 (or CHEM 335, 336, & 337)
   or
   PHYS 121, 122, & 123 (Honors sections), concurrent registration is required in PHYS 131, 132, & 133

Engineering Course Curriculum: Honors Special Projects and ad hoc courses, 9 credits.

Select a total of 9 credits of College Honors Courses with a minimum of 3 credits of Departmental 499H Special Projects (or ENGR 499H). The additional honors credits can be fulfilled with either special projects or ad hoc courses.*

*Through the ad hoc option, a student can contract with the instructor in a given departmental course to obtain honors credit in that course by completing additional work (see page 9).

Arts & Sciences Core Courses

Students who enroll in the College Honors program take Arts & Sciences Core Courses while they are enrolled in the College of Arts & Sciences taking their engineering prerequisites. In order to qualify for the Engineering Honors Program, students need to complete at least one honors natural science or math sequence and at least one civilization sequence.

Completion of the Arts & Sciences Honors Sequences (Students in College Honors Program)

Because of the difficulty of scheduling a three-course sequence around required Engineering classes, the College recommends that all three required Arts & Science Honors sequences be completed prior to admission into Engineering. Students are encouraged to work with Engineering Advising to plan their A&S Honors sequences. Engineering Advising is located in 356 Loew Hall.

Balancing VLPA and I&S Requirements

If one 15-credit Honors Arts & Sciences sequence is taken, the student must complete an additional 9 to 15 credits in Visual Literary and Performing Arts and Individuals and Societies (VLPA/I&S) depending on the department. The College will evaluate individual Honors A&S courses for VLPA/I&S content and advise the student as to his or her remaining VLPA/I&S requirement. If a student takes two sequences, the College will assume that distribution requirements for VLPA/I&S have been satisfied, including the requirement for one in-depth sequence.
Students who complete this program receive a degree "With Distinction."

GPA Requirements: 3.3 cumulative GPA, minimum Departmental GPA (see page 3), and nomination from Engineering Department to enter program.

Engineering Course Curriculum: Honors Special Projects and ad hoc courses, 9 credits.

Select a total of 9 credits of College Honors Courses with a minimum of 3 credits of Departmental 499H Special Projects (or ENGR 499H). The additional honors credits can be fulfilled with either special projects or ad hoc courses.∗

∗Through the ad hoc option, a student can contract with the instructor in a given departmental course to obtain honors credit in that course by completing additional work (see page 9).

Encouraged but not required: Students are encouraged to select Honors courses from the following Math, Chemistry, and Physics courses:

Natural Sciences and Mathematics:

MATH 134, 135, 136 (Accelerated Honors Calculus)
MATH 334, 335, 336 (Accelerated Honors Adv. Calculus)
CHEM 145, 155, 165 (Honors General Chemistry)
CHEM 335, 336, 337 (Honors Organic Chemistry)
CHEM 455H, 456H, 457H (Honors Physical Chemistry)
PHYS 121H, 122H, 123H (Honors Physics)

To sign up for these courses, students must contact the instructor for the course and/or department advisor for permission.

Number of Credits Required to Complete the Program

The College intends that most Honors students will complete the Honors Program within the 180 credit minimum currently required for an engineering degree. This can be done with the approval of the department by:

(1) Using Honors Projects (499H) to satisfy departmental elective requirements, and/or
(2) Completing the ad hoc option for honors credit in a departmental course.

Registration for Honors Courses

See departmental advisor for registration forms for departmental honors special projects (499H) and ad hoc forms. Forms for ENGR 499H are located in the Engineering Advising Office, Loew 356.

Departmental 499H (or ENGR 499H) Special Projects in Engineering (1-3 credits)

Students are invited to work with faculty in planning Departmental 499H projects (or ENGR 499H) of mutual interest. The student obtains an Honors Special Project Form and arranges to meet with the faculty member to plan the project. Following the Special Project Form instructions, a written project description is then delivered to the departmental advisor, where, provided the project is approved for Honors credit, the student will be given an entry code for the class that quarter. Entry codes for ENGR 499H are available from the Engineering Advising Office, Loew 356.
Ad Hoc Honors Courses and Credits

Ad Hoc Honors is an option available to College of Engineering Honors students. Through ad hoc, a student can contract with the instructor in a given departmental course to obtain Honors credit in a course not designated as an honors course.

Students may register for an ad hoc honors course, by completing a form that outlines the agreement made between instructor and student on extra work that will constitute honors credit. Typically this form is completed during the first or second week of the quarter. See the department advisor or the College of Engineering Advising staff at Loew Hall 356 for forms.

The Honors Program assumes that any Honors student who exercises this option is interested in pursuing the course in greater depth and with more intensity than he or she could within the framework of the regular class and that the student is prepared to undertake extra work.

REGULATIONS GOVERNING CONTINUATION IN THE HONORS PROGRAM

1. Any full-time student who wishes to participate in the Honors Program has a requirement of 10 graded hours per quarter. Students participating in Co-ops should notify department advisors before dropping below 10 credits.

2. In order to maintain a good standing in the Honors program at any level, a student must maintain a 3.3 cumulative GPA and the minimum departmental GPA (see page 3).

3. Students with junior or senior standing who are candidates for "College Honors" or "With Distinction" degrees must also continue to meet the minimum standards established by their major department. These may exceed, but shall in no case be less than, the requirements for the Honors Program as a whole.

4. Students in the College Honors Program and also those students in the Departmental Honors Program will be expected to make satisfactory progress toward completion of their College of Engineering Honors Program Requirements, descriptions of which are available in the Honors Program Office, 356 Loew Hall, (206) 543-1770. Students are encouraged to meet periodically with their department advisor, College of Engineering advisors, and/or University Honors Program, to discuss their programs of study and to verify completion of these Honors requirements.

A member of the Honors Program who does not maintain these standards will be placed on provisional standing for the following quarter. Continued failure to maintain an Honors-level grade point or to make reasonable progress toward satisfying Honors course requirements will result in transferring from the Honors Program. With the concurrence of the major department, good standing can be regained once the cumulative grade point returns to 3.3 and the departmental minimum Honors GPA is achieved.

Students with questions regarding these requirements are urged to meet with their departmental advisor.
Scholarships

April 1 of each year is the deadline for application for College of Engineering Scholarships for the next academic year. The College offers a broad range of scholarships. Applications are available at the College of Engineering Advising Office (Loew 356) in January for the following April 1 deadline.

Scholarship Recognition

Quarterly Dean's List. A Dean's List notation is made on the transcript of each undergraduate student who attains a quarterly GPA of at least 3.5 for 12 UW graded credits (exclusive of lower-division ROTC). "DEAN" is entered on the line below the quarter's courses on the transcript.

Yearly Dean's List. Undergraduates who have achieved a GPA of 3.5 or better in 12 graded hours for each of three or four quarters during the academic year (exclusive of lower-division ROTC courses) qualify for the Yearly Dean's List. The Yearly Dean's List high scholarship award is recorded on the student's transcript, and the student receives a certificate.

Graduation & Transcripts

At graduation, the transcript is labeled "With College Honors (or "With Distinction") in (major)" and the diploma indicates "Bachelor of Science with College Honors (or "With Distinction") in (major)." Students names will also be designated as honors students in the graduation ceremony program.

Application for Graduation

At the time students complete their Application for Graduation, the student and department advisor should complete an Honors Degree Record Form to document which honors course requirements have been met and which will be completed upon graduation. This form is sent to the College of Engineering Advising Office, which will complete the final check to see that College Departmental Honors Program degree requirements have been met. This office will notify the Registrar's Office as to which students are to graduate "With Distinction" or "With College Honors."

Students in the College of Engineering intending to complete a degree "With College Honors" should check with the University Honors Program well in advance of graduation to make certain that the Honors distribution requirements for the Arts & Sciences Honors coursework are met.
Baccalaureate Honors

Baccalaureate Honors (summa cum laude, magna cum laude, and cum laude) are awarded to recipients of a first baccalaureate degree who have earned 90 credits, or more, in residence at the University of Washington. Of these, at least 60 must be graded. The University’s Honors Committee determines annually the grade-point requirement for each baccalaureate honor. Students do not have to participate in the Honors program to receive Baccalaureate Honors.

The Honors Lounge

The Honors Lounge is located in C-101 Padelford. It provides a great place for solitary study, group study and discussion, and an opportunity to meet fellow Honors students. Keys are available from the student assistant in B-102 Padelford for a refundable deposit of $5.

Mailings to Honors Students

From time to time, the Advising Office will send the Honors students information about the honors program in the College of Engineering as needed. This information will be sent to your local address. Please keep the Advising Office aware of any local address changes.

Withdrawal from the Honors Program

A student may withdraw from the Honors Program without penalty; credits earned in Honors General Education courses can usually be applied toward the regular distribution requirements by means of a Graduation Petition.

Honor Societies

Φβκ—Phi Beta Kappa

The University of Washington has a chapter of Phi Beta Kappa, the national honor society. The primary purpose of the Phi Beta Kappa award is to recognize and honor excellent undergraduate students in the University. The society has specific breadth requirements in upper division liberal arts courses and a specific minimum number of UW course credits required. Membership elections are held twice yearly, in May and December. For information about election requirements for students in the College of Engineering, contact the Executive Secretary, Gerald Oppenheimer at 206-543-8718, Box 353090, e-mail: phibet@u.washington.edu, URL: http://staff.washington.edu/phibet/

Golden Key

Golden Key, a comparative newcomer among honoraries, was founded in 1977 at Georgia State University and currently has some 260 active chapters nationwide including a chapter established in Washington State in 1984. Membership is by invitation only and is limited to no more than the top 15% of the juniors and seniors in a given University, but is not subject to specific breadth requirements. This chapter advisor is Marilyn Zucker, in the Carlson Center. E-mail: goldkey@u.washington.edu URL: http://students.washington.edu/~goldkey
COLLEGE OF ENGINEERING HONOR SOCIETIES

τβπ – Tau Beta Pi
The College of Engineering has a chapter of the Tau Beta Pi Association, the national engineering honor society. Tau Beta Pi was founded in 1885 and is the oldest and most prestigious engineering honor society in the nation. The society's goal is to encourage and recognize superior scholarship and leadership. Membership is by invitation.

Departmental Honor Societies

Sigma Gamma Tau
(AA Honor Society)

Φε – Chi Epsilon Honor Society
(Civil and Environmental Engineering)

ηκν – Eta Kappa Nu
(Electrical Engineering)

Keramos
(Ceramic Engineering)

πτσ – Pi Tau Sigma
(Mechanical Engineering)

HONORS ADVISORS

<table>
<thead>
<tr>
<th>Department/Location</th>
<th>Advisor</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Engr. Advising Center 356 Loew Hall</td>
<td>Mary Cook</td>
<td>206/543-1770</td>
</tr>
<tr>
<td>Aeronautics &amp; Astronautics 206 Guggenheim Hall</td>
<td>Marlo Anderson</td>
<td>206/616-1115</td>
</tr>
<tr>
<td>Bioengineering 309 Harris Hydraulics</td>
<td>Isabel Landsberg</td>
<td>206/685-2022</td>
</tr>
<tr>
<td>Civil &amp; Environmental Engr. 121 More Hall</td>
<td>Lynn Girardeau</td>
<td>206/685-2611</td>
</tr>
<tr>
<td>Chemical Engineering 105 Benson Hall</td>
<td>Devota Madrano</td>
<td>206/543-2252</td>
</tr>
<tr>
<td>Computer Science &amp; Engr. 114 Sieg Hall</td>
<td>Elizabeth Rowson</td>
<td>206/543-1695</td>
</tr>
<tr>
<td>Electrical Engineering 253 EE/CSE Bldg.</td>
<td>Amy Feldman-Bawarshi</td>
<td>206/543-2142</td>
</tr>
<tr>
<td>Materials Science &amp; Engr. 302 Roberts Hall</td>
<td>Lara Davis</td>
<td>206/543-2600</td>
</tr>
<tr>
<td>Mechanical Engineering 143 Mechanical Engr. Bldg.</td>
<td>Dina Meske</td>
<td>206/685-0908</td>
</tr>
<tr>
<td>Technical Communication 14 Loew Hall</td>
<td>Kate Long</td>
<td>206/543-7108</td>
</tr>
<tr>
<td></td>
<td>Carolyn Plumb</td>
<td>206/543-7611</td>
</tr>
</tbody>
</table>
University of Washington
College of Engineering

356 Loew Hall, Box 352180
Seattle, Washington 98195-2180

Email: engradv@engr.washington.edu
Phone: (206) 543-1770
Fax: (206) 616-8554

College of Engineering Website:
http://www.engr.washington.edu

We apologize for any omission regarding the Honors Program.
Please advise of any errors to the address listed above.