



# ***Graduation with Honors in Engineering***

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## ***Graduation with Honors in Engineering***

The College of Engineering offers outstanding students several ways of distinguishing themselves including designation as an Honors student, Latin honors at graduation, graduation with distinction in their field of study, and graduation with honors in engineering.

As an Honors engineering student, you may participate in the Graduation with Honors in Engineering (GHIE) program:

1. To support and challenge you with access to more advanced levels of study,
2. To enable your creativity,
3. To encourage in you a sustaining interest in advanced education and research,
4. To enhance your professional development, and
5. To provide opportunities for you to gain recognition at the time of graduation for advanced and distinguished work as an undergraduate. This will be indicated on your diploma as a Bachelor of Science degree in your field with Honors in Engineering.

Once you are enrolled in this program, you will be advised by a team. Members of this team will include: your program academic advisor, the College of Engineering Honors advisor, and a faculty mentor.

Eligibility for Enrollment: To be eligible to enroll in the GHIE program,

1. You must have successfully completed 40 credits of courses taken at Ohio State for a letter grade, at least 10 of which are designated as Honors courses or equivalent courses (upper division courses not required for your major or courses taken for graduate credit),
2. You must have a Cumulative Point-Hour Ratio (CHPR) of at least 3.40, and
3. You must submit your application no later than when you apply for graduation (three quarters prior to graduation).

Faculty Mentor: Upon enrollment into the GHIE program, you either will select or be assigned a faculty mentor in the area of your specialization. (For students writing an Honors thesis, this faculty mentor can be the person who is advising you on your Honors thesis research towards achieving graduation “with distinction.”) If you change your area of specialization or area of research, you may petition for a change in faculty mentor, provided that the new mentor agrees to help you toward achieving the goals established in your application to the GHIE program.

Honors Advising: Specialized Honors advising provided by the College of Engineering is key to your success in this program. The college Honors advisor and the advisors in your degree program area are available to assist you in determining the choice of Honors courses that will provide a challenging and meaningful academic experience. Advising expertise includes special areas such as combining pre-med or pre-law courses and entrance examinations with engineering curricula, combining major and minor area programs, and combining multiple bachelor degree programs—e.g., a bachelor’s degree in an engineering field with a bachelor’s degree in mathematics or business administration. The college Honors advisor will coordinate your curriculum with the degree program advisors in departments within the college and in other colleges as applicable. All of the advisors will help you find a faculty mentor within your degree program in engineering.

Enrollment Process: In consultation with advisors, develop an application to enroll in the program that comprises:

1. A curriculum of undergraduate study that is rich with coursework, investigational challenges, and leadership and service efforts in all years as described below; and
2. A plan that meets your educational objectives and objectives of the GHIE program.

Your application must use the GHIE form available on the college website (<http://www.eng.ohio-state.edu/>). The application must be signed by you and your academic advisor. Submit the form with the signatures to the College of Engineering Honors Office for college approval by the college Honors advisor. When approved at the college level, indicated by signature of the college Honors coordinator, the application becomes your GHIE Plan.

Eligibility for Continuance: To continue to participate in the GHIE program, you must maintain Honors status in the College of Engineering and must make satisfactory progress toward completion of the curriculum and activities established in your plan.

Revisions: Approved plans may be revised, as long as they continue to meet the stated requirements. You must request official approval for significant revisions with a letter of explanation for the need for revision to your advising team. All approved revisions must be filed with the College of Engineering Honors Office.

Completion: The quarter before you graduate, you will indicate that you will complete the requirements for graduation with honors in engineering by following the directions in the completion section of your approved GHIE Plan and submitting it to your department Honors coordinator for concurrence. The college Honors advisor in collaboration with your faculty

mentor and your academic advisor will validate that you will successfully complete the program by the time you graduate. They will so indicate by signing the completion section of the GHIE Plan. The document with all required signatures shall be submitted to the College Honors Office no later than noon on the first Friday of the quarter in which you intend to graduate.

Upon successful completion of the approved criteria of the GHIE program, you will be a candidate for a Bachelor of Science degree in your field with Honors in Engineering.

### Developing Your Program

Your program should be tailored to meet your specific needs, but must contain at least 80 points from the following three elements. The prudent student will plan for more than the minimum points for added flexibility.

**A. Honors & Graduate Coursework:** At least 20 points, but not more than 60 points, must be earned by completing Honors courses or the equivalent (upper division courses not required for your degree program or courses for graduate credit while an undergraduate student). One point will be earned for every credit hour completed of Honors courses or equivalent, including Fundamentals of Engineering for Honors (FEH) courses in engineering (Engineering H191, H192, H193), physics (Physics 131I, 132I, 133I or Mechanical Engineering H210), and mathematics (Mathematics 161A, 162A, 263A); and Engineering 695 (Engineering Teamwork Seminar UG 1). Honors courses taken as part of the Honors thesis cannot be counted in this element.

**B. Investigational Studies:** At least 30 points, but not more than 60 points, must be earned through investigational studies according to the following schedule:

<b>B. Schedule of Points for the Investigational Studies Component of the GHIE Program</b>	
Honors thesis	30 points
Minor in a non-engineering field	30 points
One quarter of study abroad	20 points
A research-focused internship- or co-op-type experience	10 points per quarter for a maximum of 20 points
Minor in an engineering field	20 points
Submit a research paper for publication in a refereed journal on work other than done for an Honors thesis	20 points
Present a research study at the Denman Undergraduate Research Forum or a meeting of a professional society	10 points
Submit a research paper for publication in a refereed journal on work done for an Honors thesis	10 points
Other as approved by the College of Engineering Undergraduate Honors Committee	10-20 points

**C. Leadership & Service:** You may select to participate in leadership opportunities and co-curricular service programs at the university, college, and program levels. In addition, professional and honorary societies exist in each of the major areas within the College of Engineering. These societies promote scholarship, leadership, and fellowship while providing a chance for you to be a part of the university's engineering community.

At least 10 points, but not more than 30 points, must be earned through leadership and service opportunities according to the following schedule:

<b>C. Schedule of Points for the Leadership &amp; Service Component of the GHIE Program</b>	
Serve in a leadership role on a College of Engineering student project team such as the Formula SAE Car, steel bridge, and Engineer Magazine.	5 points per year
Serve as an officer of a student non-honorary student organization such as a student chapter of a professional organization or a college-wide student organization.	5 points per year
Serve as an officer of one of the college or university honorary societies such as: Alpha Epsilon                      Food, Agricultural, and Biological Engineering Alpha Pi Mu                            Industrial Engineering Alpha Sigma Mu                       Metallurgy and Materials Science Chi Epsilon                              Civil Engineering Eta Kappa Nu                           Electrical Engineering Kappa Theta Epsilon                  National Co-Operative Education Keramos                                  Ceramic Engineering Pi Tau Sigma                             Mechanical Engineering Sigma Gamma Tau                       Aeronautical/Astronautical Engineering Tau Beta Pi                               Engineering Honor Society Texnikoi                                    Honorary Engineering Service Organization Upsilon Pi Epsilon                      Computer Sciences Mirrors                                    Sophomore year class honorary Romophos                                 Sophomore year class honorary Chimes                                     Junior year class honorary Bucket & Dipper                       Junior year class honorary Mortar Board                            Senior year class honorary Sphinx                                     Senior year class honorary	5 points per year
Serve as a member of departmental, college, or university committees	5 points per year
Perform volunteer services	1 point per 10 hours of service
Other as approved by the College of Engineering Undergraduate Honors Committee	1-10 points

A maximum of 10 points may be earned from any one item in the Leadership & Service component.

### **Honors Courses**

Existing Honors courses are taught throughout the year. A listing of the Honors courses offered for the current quarter and a sample list of the Honors courses typically offered each year can be found at the Honors and Scholars website ([http://honors.osu.edu/honors\\_courses.html](http://honors.osu.edu/honors_courses.html)) Additional courses are under development in the College of Engineering and will be available to you in the GHIE program.

General Education Curriculum (GEC) and Engineering Core Curriculum: Honors students are encouraged to take a significant portion of their GEC and engineering core courses as Honors courses or to take upper level courses as substitutions for GEC courses.

First-Year Engineering Honors Seminars (proposed): The college is currently considering an undergraduate Honors seminar series for first-year students. Students enrolled in the GHIE program will have the opportunity to take the courses in this series once it is developed. The purpose of this series could include opportunities for you to develop focus and some insight into which engineering major interests you or to expose you to other areas of engineering.

Sophomore-, Junior-, and Senior-Year Curricula: The content of courses required by each degree program within the College of Engineering varies widely because the sophomore-, junior-, and senior-year curricula are determined by each discipline-specific faculty. The college encourages each faculty to include seminars in professionalism and leadership in their curricula. Individual degree programs are encouraged to develop Honors seminar series as well as Honors sections of 200- and 300-level courses.

Honors Internships (proposed): The college is considering the development of internships that go beyond the usual scope of the typical undergraduate internship. These Honors internships will provide students a challenging, practical experience. In addition to research internships currently sponsored by the College of Engineering and the Engineering Experiment Station for undergraduate participation in research at Ohio State, the college is considering actively recruiting industrial partners for Honors internships.

# Graduation with Honors in Engineering

## Application, Approved Plan, & Completion Certification Form

Use this form to apply to the Graduation with Honors in Engineering program. Once it is approved, this form becomes your official GHIE Plan and is then used for you to document completion of your plan prior to graduation.

Name: \_\_\_\_\_

Email address: \_\_\_\_\_

Last four digits SSN: \_\_\_\_\_ Phone: \_\_\_\_\_

Expected Quarter & Year of Graduation:      AU      WI      SP      SU      2\_\_\_\_\_

Degree (circle one):

<b>Aeronautical &amp; Astronautical Engineering</b>	<b>Aviation</b>	<b>Ceramic Engineering</b>	<b>Chemical Engineering</b>	<b>Civil Engineering</b>	<b>Computer Science &amp; Engineering</b>	<b>Electrical &amp; Computer Engineering</b>	<b>Engineering Physics</b>
<b>Food, Agricultural, &amp; Biological Engineering</b>	<b>Geomatics Engineering</b>	<b>Industrial &amp; Systems Engineering</b>	<b>Materials Science &amp; Engineering</b>	<b>Mechanical Engineering</b>	<b>Metallurgical Engineering</b>	<b>Welding Engineering</b>	X

<b>Points Grid</b> (see instructions below)					
			<b>Application</b>	<b>On Completion</b>	
<b>Schedule</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Points Planned</b>	<b>Points Earned</b>	<b>Final Quarter Points Pending</b>
A	20	60			
B	30	60			
C	10	30			
<b>Total</b>	Must be $\geq 80$				

### Instructions

TO APPLY to the GHIE program, use attached Schedules A, B, and C:

1. Fill out the first three unshaded columns of each schedule as completely as possible;
2. Sum up the Points Planned column on all three schedules;
3. Transfer the subtotals to the unshaded Points Planned column of the Points Grid;
4. Calculate the Total for the Planned column on the Points Grid;
5. Sign the form;
6. Obtain your academic advisor's signature; and
7. Submit the form to the College of Engineering Honors Office.

You will be notified about the status of your application from the college office and will be assigned a faculty mentor.

TO CONFIRM COMPLETION of your approved GHIE Plan as you prepare to graduate,

1. Complete all remaining parts of Schedules A, B, and C;
2. Sum up the shaded Points Earned column and Final Quarter Points Pending column on all three schedules;
3. Transfer the subtotals to the shaded Points Earned column and Final Quarter Points Pending column of the Points Grid;
4. Calculate the Total for the Points Earned column and the Final Quarter Points Pending column on the Points Grid;
5. Obtain the signatures indicated in the box titled Completion Signatures;
6. Submit the form with all signatures to the College Honors Office no later than NOON on FRIDAY of the FIRST WEEK OF THE QUARTER YOU PLAN TO GRADUATE.



*Application Signatures (required prior to submitting application for review)*

\_\_\_\_\_  
Applicant Date

\_\_\_\_\_  
Academic Advisor Date

For official use only:

Date rec'd: \_\_\_\_\_ Honors status: Y      N      CPHR: \_\_\_\_\_

\_\_\_\_\_  
College Honors Advisor Date

\_\_\_\_\_  
College Honors Coordinator Date

Assigned Faculty Mentor: \_\_\_\_\_

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*Completion Signatures (required prior to submitting form at completion)*

\_\_\_\_\_  
Faculty Mentor Date

\_\_\_\_\_  
Academic Advisor Date

\_\_\_\_\_  
College Honors Advisor Date

For official use only:

Date rec'd: \_\_\_\_\_ Honors status: Y      N      CPHR: \_\_\_\_\_

OK for GHIE:

\_\_\_\_\_  
College Honors Coordinator Date



## Graduation with Honors in Engineering

### Schedule B. Investigational Studies Component

	Possible Points	Application	On Completion	
		Points Planned	Points Earned	Final Quarter Points Pending
<i>Item</i> Add information as requested for items you are planning or are claiming; <u>add additional documents and paper as necessary.</u>		Circle all that you plan to take	Circle all that you are claiming	Circle all that are pending completion
<b>Senior Honors thesis</b> Attach copy of signed title page upon completion	30	30	30	30
<b>Second major</b> Area of second major:	30	30	30	30
<b>Minor in a non-engineering field</b> Minor area:	30	30	30	30
<b>Minor in an engineering field (including CIS)</b> Minor area:	20	20	20	20
<b>One quarter of study abroad</b> Description:	20	20	20	20
<b>A research-focused internship- or co-op-type experience</b> <u>MUST</u> attach Description:	10 per quarter / 20 points maximum	10 10	10 10	10 10
<b>Present a research study at the Denman Undergraduate Research Forum or a meeting of a professional society</b> Topic: Meeting: Date of presentation: Location:	10	10	10	10
<b>Submit a research paper for publication in a refereed journal on work other than done for a senior Honors thesis</b> Topic: Journal:	20	20	20	20
<b>Submit a research paper for publication in a refereed journal on work done for a senior Honors thesis</b> Topic: Journal:	10	10	10	10
<b>Other as approved by the College of Engineering Undergraduate Honors Committee</b> Details:	10-20	Write in number:	Write in number:	Write in number:
<b>Subtotal for Schedule B. →</b> <b>Must equal 30 or greater.</b> <b>Points in excess of 60 will not be included in total.</b>				

