HONORS PROGRAM FOR BME STUDENTS

If courses are chosen carefully, students can complete both University and College Honors requirements without any additional credit hour requirements. University Honors builds on the Engineering Honors program – all credits earned as part of the Engineering Honors Program apply to the requirements for University Honors.

Students are encouraged to look at the availability of Honors sections for all classes that they are considering in order to avoid the problem of being short on the total credit count at the end of 4 years. The following describes how students can satisfy these requirements in a coordinated manner within the normal credit requirements for the BME degree. Students are encouraged to develop an Honors Plan of Work early in their program to outline which classes they will use to satisfy the requirements of Engineering and University Honors.

ENGINEERING HONORS REQUIREMENTS

Every admitted student to the BME Program is expected to be eligible for the Engineering Honors Program. Students admitted to University Honors are automatically enrolled in the BME Honors (BMEH) major. Students must maintain a 3.5 cumulative gpa and a 3.3 Honors gpa to remain in and graduate with Engineering Honors. Students must complete a total of 24 credits of Honors courses, including those specified below.

REQUIREMENT	RECOMMENDATION
BE 2100 Honors	BE 2100 Honors (3 cr)[1]
Capstone Honors	BME 4910 and 4920 Honors (6 cr)
Honors Seminar	HON 42XX – FC, HS, or VP course (3-4 cr)
Honors Thesis	BE 5998 – counts as Conc Elective (4 cr)
7-8 Honors Elective Credits	MAT 2010 & 2020 ESP (4 cr each); BIO 1510 (4 cr); or AGRADE classes (8 cr) are recommended

The Honors Thesis, which counts as one of a BME student's required 3 Concentration Electives, can be completed in either the 3rd or 4th year. Students are encouraged to get involved with research early in their program in order to develop a background to support their thesis project.

NOTE 1: If BE 2100 is taken during the summer, it must be taken with an Honors Option as no distinct Honors section is scheduled.
NOTE 2: Honors Seminars are offered on a variable basis. Selecting one that satisfies FC, HS, or VP requirements minimizes the need for additional credit hours. Others will satisfy this Honors requirement but may not satisfy College of Engineering General Education requirements.

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UNIVERSITY HONORS REQUIREMENTS

Select incoming freshmen are invited to join the Honors College from their first semester on campus. Often significant University scholarships are tied to membership in the Honors College. Such students should work with both BME and Honors advisors during their Orientation registration to select the appropriate first year courses. The following requirements have been set for graduating with University Honors, including completion of at least 36 credits (total) of Honors coursework.

REQUIREMENT	RECOMMENDATION
24 credits from Engineering Honors[3]	See Above (24 cr)
HON 1000 (SS)	HON 1000 as Fall-1 Elective (3 cr)
PS 1010 Honors (AI)	PS 1010 as Winter-1 Elective (4 cr)
Service Learning	BME 2920 + HON 3000 (1 cr)
4 Honors Elective Credits	AGRADE classes, other Honors electives, additional courses not yet counted from Engineering Honors list

For students entering the University Honors program as freshmen, the College of Engineering and the BME Program accept HON 1000 in place of the normal SS requirement of Economics.

NOTE 3: Students may pursue University Honors without Engineering Honors if they so choose, in which case these 24 credits must include an Honors Seminar and Honors Thesis.

FREQUENTLY ASKED QUESTIONS

What is an Honors Thesis? The Honors Thesis is a required part of both the Engineering and University Honors Programs. It is typically completed during the junior and/or senior year. Submit a written paper (minimum of 20 pages) based on an experimental, analytical, or computational research *to be performed by the student* on a topic related to biomedical engineering. An oral defense is not required. The thesis can be supervised by any BME faculty member, including joint and adjunct appointments, or by an external supervisor with permission from the Undergraduate Program Chair. Students register for Honors Thesis through BE 5998, typically for 4 credits. The course can be included on the schedule at any point in the junior or senior year. If students need more than 1 semester to complete the thesis research, which is very reasonable, a deferred grade (Y) can be assigned while the work is completed.

What is an Honors Seminar? How do I pick one? Graduation with either Engineering or University Honors requires satisfactory completion of an Honors Seminar. These are a set of small, advanced courses that include significant discussion. Most also satisfy one of the University's General Education requirements, as indicated by the two-letter code after the course number (e.g. HS or AI). The available Honors Seminars each semester are listed at classschedule.wayne.edu under Honors. BME students may select any Honors Seminar to satisfy this requirement. HOWEVER, for the course to also satisfy a BME General Education requirement, the Seminar should be tagged as FC, HS, or VP. (If students are pursuing only Engineering Honors and did not take PS 1010, an AI Seminar can also be used.) Availability of the various types of Honors Seminars is limited and sporadic. Students are strongly encouraged to look at these options first in any semester in which they are picking a General Education course to minimize the chance of having to take additional courses at the end of the program.

How do I satisfy the Service Learning requirement? All University Honors students must include a service learning experience in their undergraduate program. For BME students, this can be satisfied through BME 2920 – BME Design Lab IV. The service learning is conducted through completion of a BME design project for a specific team client, including meeting with the client throughout the design process to insure that the design meets their needs. To insure documentation of completion of the Service Learning, students should concurrently register for HON 3000 for 0 credits. (Generally, a service learning course is expected to be at least 3 credits. However, because service learning in the form of client-based design is integrated throughout the BME Design Labs, and all BME students must complete the full set of courses, an exception has been made the BME program.) BME 2920 must be completed with a grade of B or higher to receive a mark of satisfactory (S) in HON 3000. When completed concurrently, the 1 credit of BME 2920 does count towards the Honors Credit requirement.

FREQUENTLY ASKED QUESTIONS

What courses count as Honors? There are several ways to have a course count towards your Honors credit requirements:

1. Take an Honors Section of a course. These sections are designated a 500-level section number (e.g. 501, 502) at classschedule.wayne.edu. They will also carry a notation about being limited to Honors students. The Honors section may meet concurrently with "regular" sections or completely separately.
2. Request an Honors Option for a course. Students may request that they be allowed to complete a course with an Honors Option. *This process must be initiated by the student!* Talk to the professor of the course and ask whether it would be possible to add an Honors Option. Typically, this will involve an additional project of some sort. Once a verbal agreement has been reached, download the Honors Option form from honors.wayne.edu and complete it. Return the signed form to the Honors Advisor. At the end of the semester, when the completion of the Honors-option work has been confirmed by the professor and the final course grade recorded, a notation will be made on the transcript.
3. Enroll in the AGRADE Program[4]. AGRADE students may count any of the 16 credits of initial coursework listed on their AGRADE plan of work as Honors credits. Eligible students may apply to the AGRADE program in BME (or another engineering field) after 90 credits of coursework have been completed. Students are expected to have a 3.4 overall and a 3.6 major gpa to be accepted into the AGRADE program. At the time of application, an AGRADE plan of work is filed that indicates the full MS program plan, including which courses taken as an undergraduate will double count towards graduate degree requirements. Once accepted, Honors students should supply a copy of the AGRADE plan of work to the Honors Advisor. The courses listed on the undergraduate portion of the plan of work will be granted Honors credit as long as the minimum grade of B is earned in the course. BME Honors students will typically include the following courses in the undergraduate portion of their AGRADE plan of work:

    - BME 5010 – Quantitative Physiology
    - BE 5998 – Honors Thesis
    - 2 5000-level Concentration Electives

NOTE 4: For more information on the AGRADE Program, see the program brochure – available on the BME, Engineering, and Honors websites.

What courses do engineering students typically take as Honors? The following is only a sample of what may be taken to satisfy requirements for Honors credits. These courses will all meet BME degree requirements. *The correct section MUST be selected for the course to count as Honors!*

BE 2100(3 cr)
BE 5998 (4 cr)
BIO 1510 (4 cr)
BME 2920 (1 cr) (+HON 3000)
BME 4910 (3 cr)
BME 4920 (3 cr)
ECO 2020 (4 cr)
HON 1000 (3 cr)
HON 42XX (3 cr)
MAT 2010 ESP (4 cr)
MAT 2020 ESP (4 cr)
Various Gen Ed courses