Honors Program Curriculum

**General Studies:** Focuses on breadth of study through honors general education courses.

**Advanced Scholarship:** Gives students a chance to conduct original research over two semesters under the supervision of a faculty member.

- **Departmental Honors:** For students who wish to undertake advanced research within their major.
- **Multidisciplinary Honors:** For students who want to design honors programs of study outside of their major or between their major and other disciplines.

Source: [https://www.honors.umass.edu/curriculum-overview](https://www.honors.umass.edu/curriculum-overview)
<table>
<thead>
<tr>
<th>Departmental Honors</th>
<th>Multidisciplinary Honors</th>
<th>General Studies Honors Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>One CS honors course any level (excluding service courses). One CS honors course at the 300+ level. Can also use some 500/600</td>
<td>4-5 Honors courses from more than one discipline including the Honors Thesis or Project.</td>
<td>5 General Studies Honors courses, including Honors Writing 112H.</td>
</tr>
<tr>
<td>Honors Thesis or Project advised by a <strong>CS faculty member</strong>.</td>
<td>Honors Thesis or Project advised by a faculty member in a <strong>different department</strong>.</td>
<td>No honors thesis or project.</td>
</tr>
<tr>
<td><strong>Commonwealth Honors Scholar</strong> on diploma and transcript. <strong>Departmental Honors</strong> listed on transcript.</td>
<td><strong>Commonwealth Honors Scholar</strong> on diploma and transcript. <strong>Multidisciplinary Honors</strong> listed on transcript</td>
<td><strong>General Studies Honors</strong> on transcript</td>
</tr>
<tr>
<td>Apply using form on CS honors website.</td>
<td>All students are in the MH track by default.</td>
<td>Meet with a CHC Advisor to opt out of advanced studies.</td>
</tr>
</tbody>
</table>

**Source:** [https://www.honors.umass.edu/sites/honors.umass.edu/files/forms/curriculum/CHCCurriculumCharts/CurriculumComparisonChart.pdf](https://www.honors.umass.edu/sites/honors.umass.edu/files/forms/curriculum/CHCCurriculumCharts/CurriculumComparisonChart.pdf)
CS Honors Track: Research Requirements

Part I – Preparation: Students spend one semester acquiring the background needed to do research in their desired area and developing a thesis/project proposal. Two options: individual (499Y) or course-based (691DD). Typically 3 credits.

Part II – Project/Thesis: Students spend one semester performing research. The final deliverable is a written thesis document (499T) -- or a written project report (499P). Both require a project presentation. Typically 3 credits.

Source: https://www.honors.umass.edu/capstone-experience
CS Honors Track: Admissions

**Course Requirement:** Students must have completed the 200-level core requirements for their degree type to be admitted to the track (all of 220, 230, 240, 250 for BS students; three of the four for BA students).

**GPA Requirement:** The minimum GPA to be admitted to the track is 3.4. We generally like to see students with a GPA above 3.5 at the start of research.

**Conditional Admission:** Admissions to the track is conditional on submitting a 499Y contract and semester plan, or finding an advisor and registering for 691DD.

Source: https://www.cics.umass.edu/cics-honors-admission-application
CS Honors Track: Recommended Timeline

**Fall Junior Year**
- Submit Application
- Find Research Advisor
- Choose Prep Option
  - 499Y Proposal
  - 691DD Approval

**Spring Junior Year**
- Take 499Y
- Take 691DD
- 499 T/P Proposal

**Fall Senior Year**
- Take 499T/P
- Submit Thesis or Project

Source: https://www.cics.umass.edu/ugrad-education/cs-departmental-honors-timeline
CS Honors Track: Alternate Timeline

<table>
<thead>
<tr>
<th>Spring Junior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit Application</td>
</tr>
<tr>
<td>Find Research Advisor</td>
</tr>
<tr>
<td>499Y Proposal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take 499Y</td>
</tr>
<tr>
<td>499 T/P Proposal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take 499T/P</td>
</tr>
<tr>
<td>Submit Thesis or Project</td>
</tr>
</tbody>
</table>

Source: https://www.cics.umass.edu/ugrad-education/cs-departmental-honors-timeline
CS Honors Track: Admissions

Apply as soon as you are eligible if you are interested in the DH track.

If your application is conditionally approved, I will send you CS-specific instructions for preparing a 499Y semester plan.

Source: https://www.cics.umass.edu/cics-honors-admission-application
We maintain a list of faculty who are actively looking for honors research students.

You can also contact any faculty member by email or in person.

The number of honors research positions is limited by the availability of faculty advisors. Finding an advisor can be competitive.

Source: https://www.cics.umass.edu/ugrad-education/cs-departmental-honors-research-advisors
CS Honors Track: 499Y Proposal

499Y contract and semester plan are prepared using CHC Paths. Due 12/9/2015.

Source: https://honorsweb1.honors.umass.edu/chc-paths/
CS Honors Track: 691DD – Research Methods

CMPSCI 691DD: Seminar - Research Methods in Empirical Computer Science

This course introduces graduate students to basic ideas about conducting a personal research program. Students will learn basic methods for activities such as reading technical papers, selecting research topics, devising research questions, planning research, analyzing experimental results, modeling and simulating computational phenomena, and synthesizing broader theories. The course will be structured around three activities: lectures on basic concepts of research strategy and techniques, discussions of technical papers, and preparation and review of written assignments. Significant reading, reviewing, and writing will be required, and students will be expected to participate actively in class discussions. 3 credits.

Restrictions: Your research must have a suitable empirical component and you must work with your honors advisor throughout the semester to select a project topic. This option requires prior HPD approval.

Source: https://www.cs.umass.edu/ugrad-education/spring-15-course-descriptions
CS Honors Track: 499T/P Proposal

499T/P contract and proposals are submitted online using CHC Paths.

Research Proposal (5-10 pages)

Source: https://honorsweb1.honors.umass.edu/chc-paths/
CS Honors Track: Thesis or Project

**Deliverables:** Final deliverable for honors research is a thesis or project document describing the work. Typically 20 pages in length. Students must also give an oral presentation on their work.

**CS Major Credit:** CS major allows for up to 3 credits from 499T/P or independent studies to count toward the major. Some tracks under the “old rules” also allow the use of 499T/P as a track course. The “new rules” allow for the use of 499T/P as a 400+ level elective.
What are the Benefits of Honors Research?

1. Get a chance to work directly under a world-class computer science researcher and along side top graduate students.

2. Get a chance to contribute new knowledge to a sub-field of computer science by publishing your research.

3. Increase the competitiveness of your graduate school and job applications.

4. Improve your critical thinking, problem solving, time management, programming, and written and oral communications skills.
CS DEPARTMENTAL HONORS

Undergraduate students in Computer Science completing BA or BS degrees who are also Commonwealth Honors College students have the opportunity to satisfy the Advanced Scholarship requirement of their honors degree by completing the Computer Science Departmental Honors (DH) track. The core of the DH track is the Honors Thesis or Project (previously called the Capstone Project), which gives students the chance to work one-on-one with our faculty to complete a year-long, in-depth research project. The DH track is fantastic preparation for both graduate school and jobs in the high-tech industry.

The links below provide more information about admission to the CS Departmental Honors track, the program requirements, and the recommended time line and steps for completing the track. A listing of potential faculty advisors is provided and will be updated each semester. A link to the forms that must be filed with the Honors College to complete each step of the Departmental Honors track is also provided.

- CS Honors Track Overview Slides
- Admission Information and Applications
- Program Requirements
- Recommended Timeline and Steps
- Honors Project/Thesis Advisors
- CHC Departmental Honors Forms

Any questions about the CS Departmental Honors track can be sent to the Honors Program Director at askCSHonors@cs.umass.edu. The current CS Honors Program Director is Prof. Benjamin Marlin.

Source: https://www.cics.umass.edu/ugrad-education/honors-track
Questions ?