

JHU Department of Cognitive Science – Doctoral Program Requirements

Computational Cognitive Science (CCS) Track

For the general PhD track in Cognitive Science, please see alternate checklist.

Student Full Name: _____ (as it appears on transcript)

Start Term: _____ Primary Advisor: _____ Secondary Advisor: _____

No Double Counting: Some courses will fit more than one requirement, but may only be used to satisfy a single requirement. One breadth course may be audited in consultation with your advisor. Minimum 9 credits per semester.

| Requirement | Course # | Course Title | Grade | Term |
|--|-------------------|--|--------------|-------------|
| <input type="checkbox"/> Breadth (3 – 4 courses in Dept. of Cognitive Science) Must collectively develop sophistication in theoretical and (human) experimental approaches to cognitive science. | _____ | _____ | _____ | _____ |
| <input type="radio"/> Language (at least 1 course) | _____ | _____ | _____ | _____ |
| <input type="radio"/> Vision (at least 1 course) | _____ | _____ | _____ | _____ |
| <input type="checkbox"/> Basic Computation (3 courses) <i>Examples:</i> | _____ | _____ | _____ | _____ |
| • AS.050.670 Mathematical Models of Language | _____ | _____ | _____ | _____ |
| • AS.050.671 Bayesian Inference | _____ | _____ | _____ | _____ |
| • AS.050.672 Foundations of Neural Network Theory | _____ | _____ | _____ | _____ |
| • EN.601.675 Machine Learning | _____ | _____ | _____ | _____ |
| • EN.601.776 Machine Learning: Data to Models | _____ | _____ | _____ | _____ |
| <input type="checkbox"/> Integration (1 course) AS.050.626 Foundations of Cognitive Science | <u>AS.050.626</u> | <u>Foundations of Cognitive Science</u> | _____ | _____ |
| <input type="checkbox"/> University Research Ethics Course (in person) | <u>AS.360.625</u> | <u>Responsible Conduct of Research</u> | _____ | _____ |
| <input type="checkbox"/> Depth (6-8 courses) Number and scope of courses selected in conjunction with advisor(s) to achieve depth in CCS. Lab meetings may be used to fulfill this requirement. | _____ | _____ | _____ | _____ |
| <input type="checkbox"/> <i>Examples:</i> | _____ | _____ | _____ | _____ |
| • AS.050.660 Computational Psycholinguistics | _____ | _____ | _____ | _____ |
| • AS.050.675 Probabilistic Models of the Visual Cortex | _____ | _____ | _____ | _____ |
| • EN.601.665 Natural Language Processing | _____ | _____ | _____ | _____ |
| • EN.601.769 Events Semantics in Theory & Practice | _____ | _____ | _____ | _____ |
| • EN.601.783 Vision as Bayesian Inference | _____ | _____ | _____ | _____ |
| <input type="checkbox"/> Professional Development (2, four-session courses) Requirement fulfilled if enrolled in only SP18 offering. | <u>AS.050.860</u> | <u>Professional Seminar in Cog Sci</u> | _____ | _____ |
| | <u>AS.050.860</u> | <u>Professional Seminar in Cog Sci</u> | _____ | _____ |
| <input type="checkbox"/> Departmental talk series. Register for Current Advances in Cognitive Science (1 credit) | <u>AS.050.850</u> | <u>Current Advances in Cognitive Science</u> | S/U | all |
| <input type="checkbox"/> Research credits. Register for research credits all terms. (Consult handbook for details and credit info.) | <u>AS.050.859</u> | <u>Research in Cognitive Science</u> | _____ | _____ |
| <input type="checkbox"/> Teaching Assistantships (3-5 terms) Register for AS.050.849 Teaching Practicum all terms when acting as TA (3 credits). | <u>Instructor</u> | <u>Name of TA'd Course</u> | <u>Grade</u> | <u>Term</u> |
| | _____ | _____ | _____ | _____ |
| | _____ | _____ | _____ | _____ |
| | _____ | _____ | _____ | _____ |
| | _____ | _____ | _____ | _____ |

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Research Papers, Dissertation Proposal, and Defense

Academic Program Coordinator/main office must be informed of each milestone met.

- First Research Paper** Due: 2nd year, Nov. 1, 20____ **Completed:** _____
Student is evaluated for completion of requirements of the MA ‘along the way.’ See last page for MA along-the-way requirements. Faculty Readers must notify student and academic coordinator of outcome by December 1. Reader #1 Name: _____
 Reader #2 Name: _____
- Second Research Paper** Due 3rd year, May 1, 20____ **Completed:** _____
After successful completion, advisor(s) and student meet to discuss career path. Faculty Readers must notify student and academic coordinator of outcome by June 1. Reader #1 Name: _____
 Reader #2 Name: _____
- Dissertation Proposal** Due 4th year, May 1, 20____ **Date Approved:** _____
Student submits proposal to committee. Student must pass an oral defense. Advisor(s) must notify the student and academic coordinator of outcome. Committee Member #1 Name: _____
 Committee Member #2 Name: _____
 Committee Member #3 Name: _____
- Graduate Board Oral Exam** Due 5th year, Aug. 1, 20____ **Completed** _____
Preceded by an open presentation, a GBO Exam in Cognitive Science is a formal defense of a dissertation that presents an original contribution to some area(s) of cognitive science in a format approaching publication standards (guides.library.jhu.edu/etd/formatting). GBO date, committee members, grade, etc. are recorded on the GBO Form and thus not included on this checklist. The Academic Program Coordinator MUST be informed of any upcoming GBOs at least 2 months in advance due to the time it takes time to assemble a GBO committee, have the committee approved, and schedule the event.
For GBO information, see also <http://homewoodgrad.jhu.edu/academics/graduate-board/graduate-board-oral-exams>

Deadline Extension

To request a project deadline extension, submit a written request to your advisor(s) and the Director of Graduate Studies before the deadline. The request should include a proposed new deadline and a narrative explanation of the reasons for the extension and the goals for the new deadline (e.g. what the student will accomplish by the proposed new deadline). This request will become a part of your departmental file.

‘Placing Out’ of Degree Requirements

Send a transcript and course information (e.g. syllabi) to the Director of Graduate Studies (CC advisor) identifying which course(s) you feel may satisfy one or more PhD requirements with a brief rationale. If approved, the academic coordinator must be given the written approval to add to your file.

Declaring Computational Cognitive Science Track

In your graduation application, state your desire to be in the CCS Track in your Statement of Purpose. All other admitted students are assumed to be in the general PhD track. If you wish to declare the CCS track after admission, discuss the possibility with your advisor and jointly write the Director of Graduate Studies in Cognitive Science for approval to join the CCS track. If approved, the academic coordinator must be given the written approval to add to your file.

University Graduate Affairs Policies: <http://homewoodgrad.jhu.edu/academics/policies>

Policy on Mentoring Commitments for PhD Students and Faculty Advisors: <https://provost.jhu.edu/education/graduate-and-professional-education/phd-mentoring-policies-and-resources/>