



### **Thesis Content Guidelines for the Ph.D. in Cognitive Science**

Research in Cognitive Science most often follows a mentorship model. Thus, the topic of a thesis is decided through a consultative process that involves, initially, the student and supervisor and subsequently, the Supervisory Committee. Typically, the topic of a thesis will overlap to a substantial degree with the demonstrated and stated research expertise of the thesis supervisor. The topic should be developed and expanded by input from Supervisory Committee members. In essence, students should not develop thesis topics without expert guidance from their supervisor. Most often, students who develop ideas or research topics that are not within their supervisor's expertise will have great difficulty completing their theses. Identifying the supervisor is the first step. Accordingly, the following guidelines were developed to help students understand what the thesis consists of and how to successfully make progress towards completion.

1. The thesis constitutes an integrated project or set of projects that have a clearly articulated common theme. This requirement applies regardless of the specific format of the thesis.
2. The theme will be developed through frequent meetings between the supervisor and student, supplemented by input from the supervisory committee at regular intervals.
3. The prospectus, which should be presented to the Supervisory Committee early in the process, constitutes a plan that will guide the development of the work. Although students may have completed some of the work (e.g., one or two experiments, a critical analysis, a preliminary model), the bulk of the work will not be completed before the prospectus meeting. If it has been, the student will need to be prepared for the possibility that additional or substitute work will need to be done to satisfy the Committee's requirements.
4. Research completed as part of paid employment that is not supervised by a Carleton faculty member would rarely constitute the type of academic output that is required to earn the Ph.D. degree. Largely, this restriction applies because the thesis supervisor and the committee have no influence or oversight on research that is done to satisfy the requirements of an employer. Because the thesis supervisor and the committee have no control over such research, the student could easily experience a conflict-of-interest situation if findings were inconsistent with the employer's goals or stated objectives. Further, the whole point of getting a Ph.D. is to receive academic training in specific research methods and ways of thinking. This learning process is necessarily separate from the demands of paid employment.
5. Related to Guideline #4, students who take full-time jobs before they have completed their thesis requirements should know that it is very difficult to work full time on a job and complete a thesis. Even after all the data have been completed (or analyses done, or models implemented), the writing is difficult and time consuming. It requires considerable mental effort, uninterrupted time, and frequent contact with the supervisor to produce an excellent, defensible thesis. Ideally, students should not take on full time work until their thesis is all but finished. Usually, if all substantive writing or analysis has not been completed, students will need, at some point, to take time off of work to complete it.
6. Students should also try not to change supervisors mid-stream. The best way to avoid this problem is to follow Guidelines 1-3, so that at all times, the supervisor and the student are on the same page regarding thesis content and development.