

**DEPARTMENT OF PSYCHOLOGICAL AND BRAIN SCIENCES**  
**DARTMOUTH COLLEGE**  
**GUIDE TO THE GRADUATE PROGRAM**

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## **OVERVIEW**

The primary goal of the graduate program in Psychological and Brain Sciences (PBS) at Dartmouth is the training of highly-qualified students for productive careers in research and teaching. Only students who intend to pursue the Ph.D. degree full-time are accepted into the program. The program of study involves research, a set of required courses, and advanced electives. Training culminates in the production of a publishable thesis based on original research in the student's chosen field of investigation. Each student is required to work on the thesis in the laboratory of a faculty adviser; this association will determine, to a large extent, the nature of the student's individual course of study. The guidelines that follow have been adopted by the faculty to ensure that each student completing the graduate program will have acquired the necessary skills and knowledge to be effective in research and teaching in their chosen sub-discipline.

The Graduate Program in Psychological and Brain Sciences is divided into three programmatic groups: Behavioral, Cognitive, and Social. Although most requirements are similar for the three groups, each group can set independent requirements beyond the minimum standards set by the PBS Graduate Program. Regardless of the group in which the student completes his/her training, the student will receive his/her PhD in Psychology. Students who complete additional requirements can opt to receive their PhD in Cognitive Neuroscience (see below).

To facilitate each student's transition from undergraduate to graduate life, a number of mechanisms have been set in place. Upon their arrival in the graduate program in PBS, all new graduate students, in addition to a primary (i.e., scientific) faculty advisor, are assigned a second faculty advisor. The role of the second advisor is primarily pastoral. Regular meetings will take place in which general progress and adjustment to academic life are discussed with the secondary advisor. Assignment of students to secondary advisors is undertaken by the Graduate Committee.

## **GRADUATE PROGRAM REQUIREMENTS**

### **Advanced Standing**

Students who enter the program with previous graduate training at another institution may be granted credit for certain departmental requirements. The Graduate Committee, in consultation with appropriate faculty members and the Dean of Graduate Studies, will grant such credit. It is the responsibility of the student to request consideration for advanced standing by the end of the Fall term of the first year. Dartmouth stipend eligibility is reduced commensurate with advanced standing.

### **Graduate Seminars and Courses**

The Department normally offers at least eight graduate courses each year: three of these (112, 113, 114) are the standard Proseminar sequence taken during first year; two of these (100 and 101) are the standard statistical sequence taken by students during their second year; Proseman and three or more are special topics seminars (usually 111). The Proseminar is taught during the fall, winter, and spring quarters. The format for each Proseminar will vary depending on the particular faculty overseeing the course. The topics covered during the 3-term sequence will reflect the departmental focus (i.e., Behavioral, Cognitive, Social groups). ProsemStudents' performance in Prosem will be evaluated through tests, papers, or some other objective evaluation instrument that is described in the syllabus at the start of the term. The method of evaluation will be determined by the faculty that teaches in each of Prosem's 3 terms. This evaluation and faculty feedback is an opportunity for the students to learn.

Each student must satisfy the following three course requirements: the standard statistical sequence (100 and 101), the standard Proseminar sequence (112, 113, 114), and five special topic seminars.

Students are required to complete five 'special topic' courses that are usually within the department. For the Behavioral and Cognitive groups, one of the five special topics courses must be the Medical School Neuroscience course (NEW115, currently taught in the Spring); Social students who are working towards the PhD in Cognitive Neuroscience must also take the Medical School Neuroscience course. In addition, any student working towards the PhD in Cognitive Neuroscience must also complete one other graduate-level course for graduate credit outside the Department of Psychological and Brain Sciences (e.g., computer science, engineering, biology, etc.) as part of their five special topic seminars. Students may enroll in graduate courses in another department, if recommended by their advisor and previously approved by the Graduate Committee. In order to receive credit for outside graduate courses (in lieu of special topics seminars), the student must petition for approval from the Graduate Committee before enrolling in the course and (by signature on the registration card) receive approval of the student's advisor and the course instructor. In general, there is a limit of two graduate courses from outside the department that may count toward fulfilling the seminar requirement, unless it can be adequately demonstrated that an alternative course design would be a better program for the student. Undergraduate courses cannot be taken to fulfill the graduate course requirement.

Second- and third-year students will generally enroll in graduate seminars (111) and/or the reading course (120). In addition to courses, all graduate students must attend appropriate area research meetings and departmental colloquia.

### **Research**

First-year students typically choose a research advisor during their first term of residence (many times students will have chosen their advisor prior to their arrival at Dartmouth). All students are encouraged to become familiar with the research programs of all faculty in their chosen subspecialty and should feel free to discuss research-related matters with any member of faculty.

Students are expected to engage in research during each term in the program and must have an advisor of record; if a student wants to change to a new advisor, this process must be facilitated through the Graduate Committee. First-year students enroll in Supervised Research (188); second-year students typically enroll in Independent Research (189, 289, or 389); students who have completed all the requirements except the dissertation proposal will enroll in Pre-dissertation Research (190, 290, or 390); and students who have presented their dissertation proposal will enroll in Dissertation Research (191, 291, 391). Further, all students must submit to the Graduate Committee by May 1 of each year an updated vita and a written report detailing their research and professional activities during the previous year (see Appendix A).

Note: The difference between the 100, 200, and 300 level versions of the research course above reflects different amounts of course credit. Students must enroll for 3 credits each term. Thus, if a student is taking 1 seminar (which is worth one credit) in the spring of the second year for example, he/she would sign up for 289 (ie, 289 is worth 2 credits of independent research).

### **Teaching Apprenticeship Program**

Each student will be required to serve as a teaching apprentice (TA) in four courses during his or her graduate training. Students will typically serve as a TA for one or two courses during each of the first three years, although some students, on the advice of their graduate advisor, may spread their teaching over additional years. The Chair of the Graduate Committee makes TA assignments. Students who enter the program with advanced standing may petition the Graduate Committee for a reduction in teaching commensurate with their previous teaching experience. Note, however, that advanced standing reduces the number of terms that students are eligible for Dartmouth stipends.

### **Specialist Requirement**

The Specialist Requirement is designed to ensure that students have basic knowledge in their chosen sub-discipline that prepares them for their pre-dissertation and dissertation research. As soon as a graduate student begins his or her specialization (typically during the spring or early summer of the first year), the student should request, *in writing*, the Graduate Committee to establish a Specialist Committee of three faculty members from the Department, typically from within the student's section of the program (see **Specialist Committee Form** Appendix C). Two of the three committee members must hold regular (tenure/tenure track) appointments in the Psychological and Brain Sciences Department or be a member of the PBS graduate faculty; the third member may hold a non-regular (e.g., visiting, adjunct, or research) appointment. A fourth member, from outside the Department, may be added if the student's area involves cross-disciplinary work. The student should indicate his or her choice of membership and chairperson, but it is ultimately the responsibility of the Graduate Committee to make the final appointment. Insofar as is possible, the student's preferences will be honored.

The Specialist Committee prepares, administers, and grades the Specialist Examination. The Specialist Committee will notify the Graduate Committee of the successful completion of the

Exam. Students are expected to turn in to the Departmental Administrative Assistant a copy of the completed specialist exam and the completed proposal before being assigned a grade for the specialist.

Note that the three areas (Behavioral, Cognitive, and Social) may have their own specific specialist requirements in addition to the standard exam, described below.

**PART 1:**

Students are given a reading list that covers the classical literature in their field as determined by the faculty in their group (ie, Behavioral, Cognitive, Social). During the summer of the first year, the student forms a committee comprising three faculty members and together they decide which readings from the list (as well as additional articles specific to the students' area of interest) will be covered. The student then completes these readings during the summer, fall, and winter of the second year and completes a take-home exam based on these readings before summer of the second year (typically between the winter and spring terms). At that time, the Specialist Committee will submit their questions to the Graduate Chair. The Chair will then send the questions to the student; the student should send his or her answers back to the Graduate Chair. The student must complete the written take-home exam by the last day of the spring term of the second year.

**PART 2:**

During the spring and summer of the second year, students must write a 10-page grant proposal (i.e., similar to a National Research Service Award) in an area of their choosing. Although this proposal can be related to their field of interest, it should not contain the experiments they are currently working on. The proposal, however, could provide a springboard for ideas that eventually form part of the student's doctorate thesis and students are encouraged to submit the proposal for funding through an NRSA. The purpose of this requirement is to provide the student a setting to read the relevant and specialized literature within a particular field. The student must complete and orally defend this proposal to their three-member committee before the start of the fall term of the third year.

Failure to complete Part 1 and/or Part 2 of the specialist by the first day of the fall term of the third year will result in the student being placed on academic probation. Failure to complete the requirement by the first day of the winter term of the third year could result in a loss of financial support.

**Residence Requirement**

To earn the doctorate at Dartmouth, a student must study full-time not less than two academic years if completing the doctoral program in 4 years. If the student completes the program in 5 years, he/she must study full-time no less than 3 academic years, etc.

**Dissertation**

At an appropriate time, a student should ask the Graduate Committee, *in writing*, to form a Dissertation Committee of four faculty members, **three** of whom must have regular (tenure/tenure track) appointments in the Department of Psychological and Brain Sciences or be a member of the graduate faculty in PBS and one of whom must be a **regular faculty member** from outside the Department (see **PBS Thesis Committee Form**, Appendix D). It is recommended that the outside member not be on the Dartmouth faculty. Per College rules, the outside member does not need to be present for the thesis proposal but needs to be physically present for the defense. The Department does not provide travel or housing funds for your

outside member. The student should request specific membership and indicate a preference for chairperson from among those who hold regular appointments in this Department or are members of the PBS graduate faculty. A student can petition the Graduate School to allow one member of the committee to have an adjunct, visiting, or research appointments; this person does not qualify as an outside member and may not serve as chairperson. The Dean of the Graduate School approves the Dissertation Committee upon recommendation of the Department, and insofar as it is possible, the student's preferences are honored (**PBS Dissertation Committee Form**; see Appendix E).

The primary purpose of the Dissertation Committee is to advise the student during the dissertation research and to certify to the Department that the student has written and defended an acceptable dissertation. Prior to undertaking dissertation research, students must submit to their Dissertation Committee a written statement of dissertation plans (i.e., the written dissertation proposal). The student will make a presentation to the Dissertation Committee outlining the proposed experiments. This typically takes place at the end of the third year of study. The student should expect both to be questioned broadly about his or her field of inquiry and to be questioned about the details of his or her proposed experiments/studies. Further, students must present their tentative plan for research to an area research meeting (i.e., the appropriate area brown bag meeting). This presentation should take place after the approval of the proposal by the Dissertation Committee and prior to beginning the proposed research. This presentation must take place within one month of the proposal being approved by the Committee.

After completing the proposed experiments and writing the dissertation, the student provides the Dissertation Committee with a copy of the dissertation and obtains the Committee's approval to proceed with the dissertation defense (Appendix F). The dissertation is read by members of the Dissertation Committee and must be acceptable to the Committee and the Faculty of the Department. The dissertation must also be approved by the Dean of Graduate Studies in consultation with the Department. This Committee also conducts an oral examination of the candidate, in which the candidate must both defend the dissertation and demonstrate in the widest sense that he or she is prepared for a scholarly career in the field. The student must make copies of the final draft of the dissertation available to the Committee and the Department two weeks prior to the oral defense. If any member of the examination committee finds that the submitted thesis is inadequate, that member must immediately communicate his/her concerns to the thesis adviser and the other members of the examining committee. This may result in the cancellation of the thesis defense, up to 48 hours before the scheduled meeting. In accordance with College policy, it is the responsibility of the Chair of the Dissertation Committee to assure that all members of the Dissertation Committee are present in the room at the dissertation defense. The student will present and defend the dissertation in a public colloquium attended by Committee members and open to the public. Immediately following the public colloquium the student will be examined by Committee members in private. Appendix B contains suggestions for completing the dissertation.

After each of the Committee members have approved of the oral defense and the written thesis, the student should have each Committee member sign the **PBS DISSERTATION COMMITTEE APPROVAL FORM** (see Appendix G). This form must also be signed by the Graduate Chair and by the Graduate Office. The student must also sign a dissertation completion form provided by the Graduate College to the department administrator.

The following Graduate College webpage provides details on proper formatting of the dissertation.

<http://www.dartmouth.edu/~gradstdy/students/thesis/thesisguidelines.2008-2009.pdf>

## **PROGRAM OF STUDY**

The following describes a typical four-year program for a student who enters with the baccalaureate degree (diagramed in Appendix H). In addition to the information below, students are expected to be enrolled in Research courses during every term (including summer). Students must carry 3 credits at all times to be considered active in the program and eligible for their stipend.

### **First Year**

First-year graduate students must enroll in the three-term Proseminar sequence,. First-year students also typically enroll in at least one special topics seminar during their first year. Typically, first-year students also choose to enroll in the Medical-School Neuroscience course (NEW115) in the Spring quarter.

Enrollment in PBS 188 (Supervised Research) is also required, since students are expected to engage in the ongoing activities of a laboratory or research program This serves to introduce the student to the research going on in his/her mentor's laboratory. .

During the summer of the first year, students begin to prepare for the speciliast exam to be held during the second year. Note that the graduate program is active for all quarters, and graduate students are expected to maintain active research programs during each term, including summer, and may be called upon to serve as a TA during the summer as well.

### **Second Year**

Second-year graduate students must enroll in the two-term sequence in statistics (100 and 101). The instructor, in consultation with the Graduate Committee, may excuse a student with exceptional preparation from portions of this sequence. In such instances, the student is expected to enroll in another course or seminar. One or more elements of the required statistical sequence may, on occasion, be bracketed for a year for staffing or scheduling reasons. If this occurs, the student is expected to complete the sequence in the following year.

In the second year, students are expected to continue developing breadth by electing one or more seminars in each term. Seminars may be relevant to a student's area of specialization, but more often they will serve to acquaint the student with areas outside his or her specialty.

In addition to seminars and Tutorial Reading (120), second-year students must enroll in Independent Research (189, 289, or 389) each term.

### **Third Year**

Students are expected to enroll in PBS 189 ,289, or 389 (Independent Research) or PBS 190, 290, or 390(Pre-dissertation Research) during each term and to have completed the seminar requirement by the end of this year. As in the first and second years, each student will continue to work as a research assistant with a member of the faculty. Students are encouraged to explore research topics that will contribute to the formulation of a dissertation proposal. The thesis proposal *should* be presented to the thesis committee and presented to the research-area group (e.g., a CBB, SBS, or B4 brown bag lunch) by the end of the spring quarter of the third year. However, both the presentation to the committee and to the research-area group *must* be completed before the end of the summer term of the third year. Also, there should be approximately one year between the time of the thesis proposal and the thesis defense; exceptions to this timeframe must be submitted in writing and approved by the Graduate Committee.

### **Fourth Year and Beyond**

Research for the dissertation (PBS 191, 291, 391) usually comprises the major program of study in the fourth year, although other alternatives are possible with the approval of the Dissertation Committee. Enrollment for Dissertation Research course credit may be elected only after the dissertation proposal has been made to the area research group.

While the foregoing represents a typical program, it should be made clear that the Graduate Committee, on behalf of the Department, is prepared to make changes in the program of any student when it considers the educational goals of its students to be advanced thereby.

### **Requirements for the Master's Degree**

These requirements are for either a terminal degree or, for those students intending to complete the Ph.D., an intermediate degree. Continuing students can choose, but are not required, to complete a Master's thesis. *No student will be admitted to the PBS Graduate Program with the expectation that only the Master's would be completed.*

Courses: statistics (100, 101), Proseminar (112, 113, 114), 3 seminars (111)

Teaching Assistantships: 2 completed

Specialist: Written examination passed

Thesis: a written Master's thesis, typically based on some research project completed during the first 2 years and orally defended to and approved by a 3-member committee (2 members must be tenure or tenure-track PBS graduate faculty and one member must not be part of the PBS graduate faculty).

## **GENERAL POLICIES**

### **Graduate Grading System**

Four grades are used to evaluate the academic work of graduate students: HP (high pass), P (pass), LP (low pass), and NC (no credit). HP will signify work of distinctly superior quality; P will signify work of good quality; and LP will signify work acceptable for graduate credit but in which one or more serious deficiencies were exhibited. NC is to be used when a student's work is unsatisfactory. ON (on going) is used when work for a course is continued from one term to the next and is frequently used for Tutorial Reading (120).

By current practice of the faculty, P is the modal grade. Students are free to seek oral or written evaluations of course and research work from their instructors to supplement the letter grades received, and members of the faculty are strongly encouraged to provide written evaluations directly to students with copies sent to the Graduate Committee.

Any graduate student who has received more than one LP grade or has received one NC grade will be placed on probation for a period of time determined by the faculty of the department, but for not less than one term.

The Departmental Graduate Committee will review the student's progress during the probationary period. At the end of the probationary period, the committee will inform the Dean of Graduate Studies, in writing, as to whether the student has produced coursework and/or research at a satisfactory level. If such is the case the student will be removed from probationary status. If, however, the student has not met the departmental standards for satisfactory progress, the student will be placed in 'unsatisfactory standing' until satisfactory progress is achieved according to the written requirements of the Graduate Committee.

A graduate student will also be placed in 'unsatisfactory standing' if the student receives more than two LP grades or more than one NC grade. A student in 'unsatisfactory standing' is not eligible for federal loans or Dartmouth awards.

Note that the primary advisor can petition the Departmental Graduate Committee to ask that a student be terminated from the program if an 'unsatisfactory academic standing' has gone unresolved after the probationary measures. Any decision related to termination from the program must be ratified by a full faculty vote (see Graduate Student Assessment below). In addition, faculty can vote to terminate a student from the program, independent of the student's academic standing, if the faculty believes that the student is failing to make satisfactory progress in research or violates accepted ethical standards of scholarship.

### **Graduate Representative**

Each year all current graduate students will nominate representatives to serve on the Department Graduate Committee. The nominations will be considered by the Graduate Committee in selecting student representatives (one representative from each of the Behavioral, Cognitive, and Social groups). These graduate representatives will participate in the Committee's deliberations of policy issues, but not those issues involving evaluation of present or prospective students.

## FUNDING

### **Graduate Student Financial Support**

First-year student stipends normally begin September 15 of each calendar year with the result that the first check (for one-half month) is available October 1. When possible, contracts for continuing students are written for twelve months. Students on partial stipends will receive the same monthly stipend, but for fewer months. In the case of students who are in the last year, support normally will be ended June 15th.

Students who seek to continue in the PBS graduate program beyond the 4<sup>th</sup> year must be in good standing. Students who wish to continue in the graduate program beyond the 4<sup>th</sup> year must also have completed their thesis proposal by the end of the summer of their 3rd year and presented it to their research group. All students in good standing at this time who have met the thesis proposal requirements, independent of funding source, will be required to submit a petition on or by July 1st of their 4<sup>th</sup> year in order to continue in the graduate program. The petition should consist of a detailed timeline outlining the expected progress over the coming 12 months. The PhD Committee Chair, on behalf of the student's Dissertation committee, must review and sign the petition. The Graduate Committee shall look favorably at those petitions that come from students/faculty advisors who have sought external funding support. The Chair of the Dissertation committee will report progress during the fifth year in writing as requested by the Graduate Committee.

In addition to the annual timeline, students in good standing at the completion of 4 years in the graduate program (as described above) and who seek funding from the department (DF support) must petition in advance of each term for stipend support to be extended into the fifth year. There is no guarantee that stipend support will be provided to any student beyond the 4<sup>th</sup> year in the graduate program. Stipend support can be eliminated independent of the source of the stipend (e.g., Dartmouth DF, NRSA, or funds from faculty grant). A written petition and timeline must be submitted for review by the Graduate Committee no later than one month before the start of each term. Decisions on stipend support beyond the fourth year are made on a term-by-term basis. Failure to make good progress may result in the removal of stipend support and dismissal from the PBS graduate program. Following the completion of the 5<sup>th</sup> year in the program, the Graduate Committee will assess student progress at the end of each term, again independent of source of funding. Only rarely will a student be eligible for stipend support after the completion of 5 years in the graduate program.

Stipend awards at any level are never made for more than one year. While the department makes every effort to support students in good standing, no firm commitment for continued support can be made.

Following the defense of the doctoral thesis, a student's stipend will end, at the latest, on the following dates. If a student defends during the Spring term, the stipend will end on June 15<sup>th</sup>. If a student defends during the Summer term, the stipend will end on September 15<sup>th</sup>. If a student defends during the Fall term, the stipend will end on December 15<sup>th</sup>. If a student defends during the Winter term, the stipend will end on March 15<sup>th</sup>. If a student defends during the Spring term, their health benefits continue through August 31<sup>st</sup>.

It is the policy of the Dartmouth College Arts and Sciences Graduate Program that graduate students who are fully supported (a full tuition scholarship and a full stipend) cannot receive additional payment from Dartmouth College for services rendered. Further, fully supported

students should not accept employment outside the College without the explicit approval of the Department Graduate Committee and the Dean of Graduate Studies.

**Travel to Professional Meetings**

The Office of Graduate Study has limited funds available to cover part of the transportation expenses of graduate students who present papers at professional meetings. Application must be made in writing to the Graduate Office describing the meeting to be attended, the title of the paper to be presented, and the source of any other travel funds available to the student. This request should be endorsed by the student's advisor or the Chair of the Department.

A yearly travel fund of \$350 is also available through the department and application for this fund must be made in writing to the Chair of the Graduate Committee. Similar to Graduate Program monies, Department funds are available to pay for travel and conference registration fees for students presenting papers at professional meetings. Students traveling on either Department or Graduate Office funds must prepare College travel vouchers, with original receipts, upon the completion of their trip.

## **GRADUATE STUDENT ASSESSMENT**

At the close of each term, the progress of graduate students will be reviewed by the Graduate Committee. At the end of the spring term each year, each graduate student will prepare a progress report (see Appendix A) and submit this report, along with an updated CV, to the Graduate Committee. Each student's advisor will also prepare a report on the student's progress across the year. Additional evaluation will also come from faculty for which the student has TAed. Both of these reports are reviewed by the Graduate Committee and the general faculty. Information from a student's Specialist and Dissertation committees will also be considered in these annual reviews. The faculty will determine whether the student is progressing satisfactorily and will be allowed to continue in the program. Following this evaluation, each student will receive a letter stating his or her standing in the program, as determined by the annual review. In addition, each student will receive from his or her advisor a copy of the advisor's evaluation. It is expected that each advisor will hold a meeting with each student to discuss the past year's progress and goals for the upcoming year.

The faculty has the right to suspend or terminate graduate students who are not making satisfactory progress in courses or in research, or who violate accepted ethical standards of scholarship. The decision on termination will be made by a vote of the faculty, taking into account the best interests of the student and the program. The faculty may exercise its right to terminate students who are not on probation or unsatisfactory standing if the faculty believes that a student is unlikely to make satisfactory progress in research or coursework or if the student's behavior indicates to the faculty that the person is unsuitable for an academic career. Decisions to terminate students can be made at any point during the year.

## **GRIEVANCE PROCESS FOR GRADUATE STUDENTS**

Students have the right to appeal all decisions made by the faculty. An overview of the grievance process is given below.

### **A. Informal Resolution Within Graduate Program/PBS**

Whenever possible, students should speak directly to the person who bears responsibility for the complaint or who is the alleged cause of the complaint. If this is not possible or proves unsatisfactory, students should discuss the matter with their primary or secondary advisor (or members of their Dissertation Committee). If the matter is not resolved at this stage, students should speak to the Chair of the Graduate Committee and/or the Chair of the Department. Failure to resolve the problem at this level necessitates that the student contact the Assistant Dean of Graduate Studies to arrange mediation.

### **B. Mediation by the Graduate Office**

If a satisfactory resolution cannot be reached within PBS, the student may request a meeting with the Dean of Graduate Studies to discuss the issue. If the Dean working together with the student and appropriate faculty member(s), or representatives of the department(s) or other programmatic unit(s) is unable to reach a satisfactory resolution, the student can request a formal hearing and ruling by the Dean of Graduate Studies and the Committee on Student Grievances.

### **C. Formal Grievance Hearing**

Formal hearings are conducted as described in the Graduate Handbook (see sections titled "Committee on Student Grievances" and "Formal Hearing" under Academic and Conduct Regulations).

**APPENDIX A**  
**DEPARTMENT OF PSYCHOLOGICAL AND BRAIN SCIENCES**  
**Graduate Student Annual Report**

**You may use a computer copy of this form or a plain sheet of paper provided that you number the entries to correspond with the form and both are attached when it is returned. Return this form along with a copy of your most recent vita to the Graduate Committee Chair no later than May 15.**

1. Name and advisor's name: Advanced students should also include names of specialist or dissertation committee members.
2. Professional Activities: Include in this section dates and locations, where appropriate. Appropriate categories would include:
  - Honors/prizes received
  - Memberships in professional organizations
  - Professional consulting (nature of consulting and time commitment)
  - Professional meetings attended
  - Refereeing of journals or reviewer of grants/manuscripts, etc.
  - Workshops attended
  - Other professional activities
3. Committee/Administrative Service: Please provide dates and nature of participation; e.g., colloquium committee, computer committee, etc.
4. Teaching and Research Presentations: Indicate courses taught/guest lectures and TA duties. Also indicate any research talks you gave during the year (e.g. colloquia, brown bags, informal talks). For conference papers and posters provide name of organization, location, dates, and title.
5. Activities related to supervising or assisting undergraduate and graduate thesis and other independent projects: please provide names of students, dates, and nature of your participation. Include as well other mentoring duties, such as tutoring and career advising.
6. Grants/Fellowships for research applied for or received during present academic year. Include information on organization, title of program, title of project, and status of application (e.g., awarded, denied, approved w/o funding, pending). Also, indicate your role in the project, e.g., principal investigator, co-principal investigator, recipient, etc. Please list all current grant support (do not include your advisor's grants if you were not involved in the application process).
7. Publications and/or other professional works. Indicate whether the publications were reviewed, invited, etc. Follow APA format for references. Indicate whether papers have been accepted, accepted with revisions, or rejected with invitation to resubmit.
8. Please describe current scholarly work in progress (i.e., manuscripts you are working on). Include also your major research activities (i.e., studies conducted, IRB protocols submitted during the last year).
9. Please describe your major research plans for the next academic year. Include also any plans for writing or submitting manuscripts or grant applications.

## APPENDIX B

### Advice and Guidelines for Completing the Dissertation

#### What is the dissertation?

A thesis should be an original, empirically-based study or series of studies that contribute to knowledge in Psychological and Brain Sciences. In its final form, a dissertation generally includes an extensive literature review relevant to the experiments, a description of methods and results, and a thorough discussion of the findings in the context of the literature. All dissertations at Dartmouth are bound and stored at the library. You may find it useful to review a few recent theses, particularly from this department.

#### The Ideal Timeline

In many ways, the dissertation process begins during the summer between the second and third year. Students should be thinking about possible thesis topics during this time, as well as who should be asked to serve on the dissertation committee. You will need to have three members (including your advisor) with appointments in the department and one from outside the department. The outside member may be either from another department at Dartmouth or from another institution but must have training to the level of the Ph.D. After discussing possible committee members with your advisor, you should approach those faculty members yourself to request their participation. Many faculty members will want you to give them at least a general idea of topics you are considering for your thesis. Once faculty members have agreed to serve on the committee, you should forward a list of the names to the Graduate Committee, who will ask that the Dean of Graduate Studies formally appoint them to the committee.

#### Fall/Winter of the third year

Once you have some idea of the general topic of your thesis, you should talk to the committee members about your plans for pilot studies and see if they have recommendations or advice for the topic in general or for the specific studies that you plan. You should not become wed to any one specific study or set of studies, but rather you should view your thesis question at the most general level of inquiry. Remember that your committee members are a valuable resource, and even if they are not experts on your specific topic, they will undoubtedly be able to provide general insights about empirical approaches. An outside opinion can often be an especially valuable safeguard against research that is too narrowly focused or that has design flaws that undermine its validity. In consultation with your committee you will typically plan some pilot research that begins your investigation into the topic.

During the third year it is normally expected that students will conduct appropriate background research (i.e., pilot studies), with the goal of proposing the thesis in the spring or summer term of the third year. Students who do not complete the proposal presentation during the third year run the risk of not being able to complete the dissertation in the fourth year. It is a mistake to assume that the schedule can be shortened during the final year.

Of course, you should not anticipate collecting your thesis data before you have presented your proposal to your research group or before your committee has approved the research. For instance, pilot studies should inform the thesis rather than serve as the substantive data base for the thesis. You should anticipate that members of your committee or members of the department will make suggestions for changes in the research, and it is not advisable to present as "proposed" experiments studies that are in fact already completed.

### **Spring of the third year**

At this stage you should review your pilot data and pull together your literature review to see if your thesis questions make theoretical sense and your hypotheses seem reasonable, given what is known in the field (literature). You should now be in the position to write a formal thesis proposal. The proposal contains a literature review that focuses the research question and provides an explicit rationale for the experiments. This provides a blueprint for exactly what you intend to do. The proposed experimental methods should be concrete and you should have figured out how you will obtain any special equipment, funds, or other resources necessary to complete your research.

Your advisor should be reading preliminary drafts of the proposal as necessary, and once you and your advisor think it is ready, you can give it to your committee members. You should anticipate that the committee members may require revisions (and in some cases substantial revisions) to either the document or to the experiments themselves. Ideally, you have been discussing the studies with your committee members all along.

After your committee has approved your proposal, you should have each member of the Dissertation Committee sign **the form in Appendix E**. Following approval of your proposal, you should plan on presenting your thesis proposal to your research area group meeting. Note that the presentation to your research area should take place within a reasonable period of time (i.e., within one month).

The proposal presentation itself should include an overview of the literature and your hypotheses, as well as an explanation of your proposed experiments. You should aim for a presentation of about 40 minutes, leaving ample time for questions. You should also remember that your audience is likely to be relatively broad in background, and so you should make clear the context for your interest in the thesis topic and how your experiments directly relate to that context.

### **Summer/Fall of Fourth year**

Collect data. Do not, however, wait until you have conducted all of your studies to discuss your findings with the committee members. Also, do not view your proposal as a contract for a specific set of studies conducted in a particular way. When your committee has approved your proposal, it is more like a hunting license, where we all agree that you have an acceptable goal in mind. To achieve your goal, you may have to change your hunting strategies. That is, reasonably, you may want to change the empirical plan in light of the obtained results of your preliminary studies. Your committee should continue to be a resource throughout this process. After you have completed your first study, plan to present your results to the committee to see if they think you are on the right path. In almost every case you will want (or need) to make at least slight modifications to your subsequent studies.

Remember that you are trying to answer a specific empirical question. To do so in a satisfactory manner may require you to run more studies than originally intended. You should consult with your committee to reach some agreement about when you have conducted sufficient research to gain closure on your question. In some cases, your data may conform closely with your hypotheses. In other cases, your studies may produce null results. This happens, it's science. Your committee may ask you to try to conduct additional research to understand why this occurred, although the student should appreciate that the committee might rightfully consider a thesis with completely null results perfectly fine and appropriate. The philosophy of the dissertation is that it provides evidence that you are capable of using the scientific method to assess an empirical question. You should never believe that you are

required to produce positive findings to obtain your Ph.D. If you have been communicating with your committee, they will help you determine when your competence has been sufficiently demonstrated and the question has been sufficiently explored. This is where continued contact with your committee will really pay off.

### **Winter/Spring of the Fourth year**

Finally, you have your results, and you are ready to write your thesis. Your first step should be to obtain the latest formatting guidelines from the Graduate Office. Although you might find some of their guidelines petty and aggravating, they are required by the administration (to facilitate binding and consistency), and faculty members have no power to grant exceptions to the rules.

You will hopefully have been working on the introduction all the way along. If you did a good job on your proposal, it should serve as the basis of your introduction. It also makes a great deal of sense to write your methods and results immediately following each study. Thus, ideally, your task at this stage is to organize and synthesize the material from your thesis. Do not be afraid to discuss your ideas for the final document with committee members. Some of them may even be willing (or eager) to read drafts of the thesis. A presentation to your area group or to your lab may help clarify your overall organization of the document.

A good goal is to have a credible first draft to your advisor by early in February, so that the two of you can spend the remainder of the winter term revising and polishing the document so that it is ready for your committee by the end of the term. Most committee members will appreciate having the draft to read over March break, when they can give it the attention it deserves. Nonetheless, it will probably take three to four weeks for all members of your committee to return their comments and suggestions for revisions. Once everyone has had a chance to read the thesis, it is an excellent time for all members of the committee to meet and discuss the document. It is in your interest to leave yourself enough time to make the improvements recommended by your committee. You should plan on the committee requiring at least a few rounds of revisions. Do not expect that they will be satisfied with the first draft or even with your first revision. Sometimes the revisions raise an entirely new set of issues that will need to be resolved. Note that each revision invariably improves the quality of your manuscript, and this is in your best interest because the ultimate goal is to publish your dissertation research. Do note that, given the suggestion above of giving the committee a draft by the first of March, you are really working within a pretty tight time frame, allowing yourself only one month to make all the necessary changes *and* have your committee review those changes (if you hope to finish all requirements in time for a June graduation).

When your committee approves the written document, they will sign **the form in Appendix F**. Once that has been handed into the department office, along with the approved draft of the thesis, you may schedule your oral defense. The defense is scheduled at the convenience of your committee members, but no less than two weeks after you submit your thesis to the department. This two-week period allows all interested faculty to read your thesis and subsequently attend your defense, if they so desire. In no case can you schedule your defense without allowing faculty two weeks to read the thesis.

The oral defense is presented immediately following the public dissertation talk. Successful completion of the oral defense is not guaranteed simply because you produced a satisfactory written document. The oral defense is considered by many of us to be an important rite of passage, not simply a pro forma exercise staged as an obstacle to your graduation. It is your opportunity to demonstrate your expertise in your chosen field, and it allows us to certify that

you are a competent scholar in Psychological and Brain Sciences. Therefore, the examination can be very free-ranging, and it is in no way limited to the specific thesis document. Your facility to discuss important issues raised by your thesis and consider your thesis in the broader context of the field is an essential indicator that you are ready to join the community of scholars. Of course, most of the discussion will center on your thesis, but you should be able to discuss the contribution of your dissertation research to the larger field of psychology. It will seldom be the case that the inability to answer a specific question will result in failure. Rather, you should be able to call upon your general knowledge of the field to discuss questions in sufficient depth. The way you approach the answer is as important as the information contained within. It is our expectation that students who have reached this point in their graduate career are fully capable of using the defense to demonstrate their mastery of the field.

This is also the last stage at which minor revisions of the document can be requested. Again, your committee is trying to ensure that your thesis lives up to its full potential, and therefore they will want you to correct any errors or clear up any ambiguities before it is bound and forwarded to the Graduate Office.

Once the committee has voted the successful defense of your thesis, they will sign **the form in Appendix G**. This would also be a good time for you to have the cover page of your thesis ready for them to sign (see College format rules).

Congratulations!

**APPENDIX C**

**PBS SPECIALIST COMMITTEE FORM**

**Graduate Student Name:** \_\_\_\_\_

**Specialist Committee Members:**

**Chair**

1. \_\_\_\_\_

**Title (Asst. Prof, Assoc. Prof, or Prof.):** \_\_\_\_\_

2. \_\_\_\_\_

**Title:** \_\_\_\_\_

3. \_\_\_\_\_

**Title:** \_\_\_\_\_

**Approved by:**

**Graduate Committee Chair:**

\_\_\_\_\_ **Date:** \_\_\_\_\_

**Copy of Specialist Submitted to Department on** \_\_\_\_\_

**Received by Department Administrator:**

\_\_\_\_\_

**APPENDIX D**

**PBS THESIS COMMITTEE FORM**

**(Note that all members of the Dissertation Committee are required to be present in the room at the Dissertation defense.)**

**Graduate Student Name:** \_\_\_\_\_

**Dissertation Committee Members:**

**Chair**

**1.** \_\_\_\_\_

**Title (Asst. Prof, Assoc. Prof, or Prof.):** \_\_\_\_\_

**2.** \_\_\_\_\_

**Title:** \_\_\_\_\_

**3.** \_\_\_\_\_

**Title:** \_\_\_\_\_

**4. External Member:** \_\_\_\_\_

**Affiliation (College/University/Institute):** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Approved by:**

**Graduate Committee Chair:**

\_\_\_\_\_ **Date:** \_\_\_\_\_

**Graduate Studies Office:**

\_\_\_\_\_ **Date:** \_\_\_\_\_

**APPENDIX E**

**PBS THESIS PROPOSAL APPROVAL FORM**

Date: \_\_\_\_\_

We have reviewed the attached dissertation proposal of \_\_\_\_\_ and consider it ready for presentation to the appropriate research group. A date and time for the proposal presentation should be scheduled no more than one month from the above date.

Our approval of the proposal indicates that we consider it to be a reasonable plan for dissertation research. However, it is also our understanding that the exploratory nature of original research may require revisions to this plan before an acceptable dissertation is completed. For that reason, we expect the candidate to keep the committee informed of experimental results as the program of research progresses.

\_\_\_\_\_  
(Chair)  
  
\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_

**APPENDIX F**  
**SCHEDULE OF THESIS DEFENSE FORM**

Date: \_\_\_\_\_

\_\_\_\_\_, who is a PhD Candidate, has submitted a draft of the dissertation that we consider defensible. The committee may recommend changes to the final document when the dissertation is defended.

A date and time for the defense may be scheduled for no less than two weeks from the above date. The attached draft is now made available to departmental faculty.

\_\_\_\_\_  
Chair

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**APPENDIX G**

**PBS DISSERTATION COMMITTEE APPROVAL FORM**

Date:

\_\_\_\_\_ has, by the vote of this committee, passed the defense of the dissertation.

\_\_\_\_\_  
Chair, Thesis Committee

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Graduate Committee Chair \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix H: PBS Graduate Program  
Timeline: 4-Year Plan of Study**

	Fall	Winter	Spring	Summer
<b>Year 1</b>	Proseminar (112)	Proseminar (113)	Proseminar (114)	
	Supervised Res. (188)	Supervised Res. (188)	Supervised Res. (188)	Supervised Res. (188)
			Med Neuro	
	Special Topics Seminars (1 or 2 during first year, including Med Neuro)			
				Form Specialist Cmte.
				Prep for Specialist Exam
	Attend Area Brown Bag Meetings and Colloquia			
TA (1 or 2 terms)				
<b>Year 2</b>	Stats I (100)	Stats II (101)		
	Tutorial Reading (120)	Tutorial Reading (120)	Tutorial Reading (120)	Tutorial Reading (120)
	Indep't Research (189)	Indep't Research (189)	Indep't Research (189)	Indep't Research (189)
	Special Topics Seminars (2 or 3 and outside seminar during second year)			
	Prep for Specialist Exam	Prep for Specialist Exam	Specialist Written Exam	Write Specialist G Proposal
			Write Specialist G Proposal	Defend Specialist G Proposal
	Attend Area Brown Bag Meetings and Colloquia			
TA (2 or 3 terms)				
<b>Year 3</b>	Indep't Research (189) OR	Indep't Research (189) OR	Indep't Research (189) OR	Diss Research (191)
	Pre-diss Research (190)	Pre-diss Research (190)	Pre-diss Research (190)	
	Special Topics Seminars completed by end of third year			
	Form Thesis Committee		Thesis Proposal Defense	
			Thesis Proposal Presentation	
	Attend Area Brown Bag Meetings and Colloquia			
TA (complete 4-term requirement if necessary)				
<b>Year 4</b>	Diss Research (191)	Diss Research (191)	Diss Research (191)	
			Thesis Defense	
	Attend Area Brown Bag Meetings and Colloquia			

<b>Classes</b>	3 terms of Proseminar in Year 1; 2 terms of Stats in Year 2; 5 terms of Special Topics Seminars Cog/Neuro: 1 of 5 Special Topics Seminars is Med Neuro, 1 is outside PBS refer to the PBS Graduate Program Guide for grading information and standing as related to grades
<b>Area/Dep't</b>	Attendance at at least one Area Brown Bag (SBS, CBB, B4) and all Department Colloquia
<b>Teaching</b>	4 terms of Teaching Assistantships
<b>Exam/Thesis</b>	spring of Year 2: complete written area specialist exam summer of Year 2: write and defend specialist grant proposal spring of Year 3: defend thesis proposal and present to area brown bag (within 1 month of defense) thesis defense about 1 year after successful proposal defense