DEVELOPMENTAL PSYCHOLOGY PROGRAM
DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF PITTSBURGH
STUDENT HANDBOOK
2017

GENERAL OVERVIEW

The Developmental Psychology Graduate Training Program at the University of Pittsburgh represents a broad community of scholars dedicated to the study of normal and abnormal development and related social policy. Doctoral training is based on the apprenticeship model and encourages close collaboration with faculty and interdisciplinary scholarship.

The primary goal of the Developmental Psychology Program is to train researchers and scholars who will contribute substantive knowledge to the field of developmental science and related disciplines. Research in the program focuses on infant, child, and adolescent development within diverse family, peer, school, community, and cultural contexts, as well as how developmental science may inform social policies that affect children and families. Doctoral training encompasses normative cognitive, language, motor, and socioemotional development and individual differences in these domains.

More specifically, the program's research and training focus on several inter-related areas: cognitive, language, motor, and social development in the early years of life; developmental psychopathology and family and peer processes; longitudinal studies of normative and atypical development; and social policies related to poverty, child care, and early prevention and intervention. Because research and professional training emphasizes research, students work closely with their faculty advisor in line with a mentorship model of doctoral training and they participate in ongoing, programmatic research and publication throughout their graduate careers.

Program regulations specify a minimum number of required courses and minimum research requirements. Within the constraints of program requirements, students are encouraged to individualize their research and professional experiences and elective course work to meet their specific career goals. Students are expected to be involved in research and scholarly activities throughout their training.

In addition to program requirements, students should be sure to consult with the department Graduate Studies Coordinator for additional or complementary departmental and university requirements (see Graduate Requirements on the department website).

Students in the Joint Clinical/Developmental Program will generally follow the guidelines for the Clinical Program in terms of course sequences, clinical practicum training, and other related requirements. However, note that the required and elective courses in the Developmental curriculum fulfill breadth requirements in the Clinical Program and other courses can serve as electives in both programs.

The teaching requirement and major milestone requirements are department-wide and are generally similar across programs. Thus, all students are required to fulfill the teaching requirement and to complete a master's thesis or equivalent, a specialty paper, and a dissertation. Students in the Joint Program follow slightly different guidelines for the specialty paper. In addition, the timing of the dissertation proposal may differ because of

the clinical internship year for Joint Clinical-Developmental students. Committee membership stipulations are based on both program-level and university Graduate School guidelines and also sometimes differ between programs.

As part of their research experiences during graduate training students are also expected to present their work at national and international scientific meetings and to publish their work in scholarly journals.

For further general description of the Psychology Department, the Developmental Program, and the Joint Clinical/Developmental Program see http://www.psychology.pitt.edu.

CURRICULUM

A. Statistics

Psychology 2005 Statistical Analysis I
Psychology 2010 Statistical Analysis II

These courses are required by the Department. Students wishing to substitute another course for either of these courses must obtain permission from the program.

B. *Core courses.*

Three core courses are required and must be taken in the Psychology Department; no substitutions will be granted. These are generally offered every other year:

Foundations of Developmental Psychology
Cognitive Development
Social Development

Clinical-Developmental students: these courses can count as electives in the Clinical Program curriculum.

C. *Research Methods* (one course)

Applied Developmental Methods
Clinical Research Methods (required for joint Clinical-Developmental students)

D. *Breadth Courses.* Two courses from among the following; other courses may not be substituted.

Adolescence
Child Development & Social Policy
Child Psychopathology (N.B.: this course is *required* for Joint students as of F, 2015)
Developmental Psychopathology (N.B.: this course is *required* for Joint students)

Family Influences on Child Development (taught in Applied Developmental Program)
Family Systems (treatment module in the Clinical Program)
Human Developmental Neuroscience
Infancy
Language Development (note: this course is rarely offered)
Social Cognitive Development (note: this course is rarely offered)

Clinical-Developmental students: Child Psychopathology, Developmental Psychopathology, and Family Systems are required by the Clinical Program thus fulfilling the Breadth requirements for the Developmental Program. However, students are encouraged to round out their training by taking or auditing other Developmental courses.

E. *Interdisciplinary electives.*

Three additional electives are required within or outside the department. Two must be advanced seminars. One or more may be advanced quantitative courses. Elective courses are chosen in consultation with the advisor based on students' individual research interests and career goals.

Clinical-Developmental students: Required Clinical courses count as electives in the Developmental Program, thus no additional electives are required to complete Developmental training for students in the Joint Program. Note that all clinical students must take Social Psychology & Cognitive Psychology.

Definition of Core Courses

A subset of the required courses is defined as core course requirements for purposes of the Preliminary Examination as required by the university and referred to in the Dietrich School of Arts and Sciences Graduate and Professional Bulletin (http://www.bulletins.pitt.edu/graduate/FASinfo.htm).

Students are certified as having met the core course requirements when they have taken all of the basic developmental courses (three required and two breadth) and the two required statistics courses as specified above. Ordinarily these courses are completed during the first two years.

Certification is typically obtained in conjunction with the Master's Thesis defense and is indicated on the same card that certifies successful completion of the oral defense ("Report on Examinations for Master's Degree," obtained from the department Graduate Studies Coordinator). If the Master's defense occurs prior to completing core course requirements, a second card will need to be submitted to the advisor or program chair for signatures once the courses are complete.

Grades

Students must obtain grades of A or B in all required and elective courses and maintain an overall GPA of 3.0 or better. In the rare event that a student receives a grade of B-, the program will decide whether the course can be considered to have satisfied the requirement. Any grade below a B- is not satisfactory and is equivalent to a failure; more than one such grade will result in early termination from the program.

ADVISORS & LAB RESPONSIBILITIES

Incoming students are selected based on academic qualifications and research interests. Students are matched with a faculty advisor on the basis of compatible research interests. In addition to mentored research training, advisors provide guidance on educational and career plans, professional development matters, and approve registration forms each term.

A centerpiece of graduate training in the Developmental Program is the unique learning experience that students obtain as active participants in their advisor's program of research. Thus, all students are expected to work in their advisors' labs and participate in their research programs. During the first year of graduate study, lab work may provide the basis for the first/second year project or thesis proposal. Students are of course free to devise master's or master's equivalent projects on their own initiative and of their own design and are encouraged to do so in consultation with the advisor.

A minimum of 10 hours per week is expected in the advisor's lab, regardless of the student's funding source (e.g., individual fellowship, teaching assistant/fellow, or GSR), with approximately 20 hours for students working as a full-time GSR. Note that advisors will vary considerably in their expectations for student time in the lab depending on the specific duties required and their relationship to the student's own research. For example, in some labs students may work as co-investigators on projects that relate directly to their developing research programs or their program milestones, and that result in co-authorship on publications. In this circumstance the student's weekly time in the lab may far exceed the program minimum of 10 hours per week. In other scenarios, students may act as project managers and/or collect and code data for projects that are less relevant to their own research priorities. Under these conditions, the student's weekly expectations should be closer to the program minimum of 10 hours per week if the student is not supported as a GSR. It is expected that the advisor and student will discuss these expectations on a regular basis and that both will be in clear agreement about lab responsibilities.

Based on the myriad and sometimes shifting demands on students' time, advisors and mentees should meet at least once each semester to discuss and plan for expectations for students' time commitment in the advisor's lab, including duties for and progress on expected projects. This discussion should balance the student's current coursework, plans for milestone completion, and other training or funding-related commitments (e.g., teaching), as well as the expected outcomes for the student of the planned work in the lab (e.g., papers or presentations). Meeting more than once a semester to discuss these matters may be of value for some students. If a student believes that he or she is

committing too much time to the advisor's lab, the student should request a meeting with the advisor to discuss the issues and formulate a workable and mutually acceptable plan. If a student finds that the advisor is unresponsive to his or her concerns, or if a mutually agreeable solution cannot be found, the Developmental Program chair, the departmental ombudsmen, or the department chair should be contacted to discuss issues or grievances confidentially.

Ideally the advisor-student relationship is mutually beneficial for the student and faculty member throughout graduate training. However, if research interests diverge or stylistic differences emerge that undermine a productive working relationship, students may opt to change advisors. Although it is generally not advisable, students can select a new advisor as late as the point of dissertation proposal, i.e., to supervise the dissertation. Changes of advisor must be discussed with the Director of Graduate Studies and approved by the Developmental Program and, for Joint Clinical-Developmental students, by the Clinical Program. Once decided, the department Graduate Studies Coordinator must be informed of the change. If the new research advisor is not a core member of the program, the student will be assigned a core program faculty member to serve as academic advisor.

MENTORING COMMITTEE

Each student is assigned a mentoring committee to assist with advising needs and questions and to facilitate students' academic progress under the 2011 department milestone policy. For students in the Developmental Program, a co-advisor will be assigned by the program upon admission and together with the primary advisor will constitute the Mentoring Committee. For students in the Clinical-Developmental Program, the Clinical Program will assign the committee with the approval of the Developmental Program. At the end of the first year, upon consultation with their primary advisor, students may opt to replace the co-mentor if they feel a better fit would be achieved with another faculty mentor. A written request to do so must be sent to the program chair, with the new faculty member identified; such requests are typically granted without further justification.

Students are required to meet annually with their Mentoring Committee until they have proposed their dissertations. Mentoring meetings typically occur in the second term and must be scheduled to occur no later than May 15. *Students in their first year are required to have an additional meeting at the end of their first term in residence.* For students past the first year, additional meetings are encouraged and may be called at any time at the student's discretion. Students schedule annual mentoring meetings themselves, as detailed below, and are required to submit a brief report (1 – 2 paragraphs) by email to the program chair and the Mentoring Committee after each meeting to ensure that there is general agreement about what was discussed and any actions that were decided.

The purpose of the Mentoring Committee is to support students in making and implementing plans for academic progress and professional growth. The structure and content of the meeting will vary depending on the student's year in the program and current progress. It can include providing advice regarding courses and course planning;

clarifying expectations of the department and the program regarding advising and/or student performance as necessary; and troubleshooting barriers to progress or professional growth and helping to address any problems. To facilitate open communication the *co-advisor* will chair the meeting.

During the Mentoring Committee meeting, students should plan to discuss their training and professional development goals, course planning, progress since the last meeting in accomplishing their goals, and future goals and plans. Students' questions, concerns, or issues about progress and performance should be raised here and discussed in a supportive manner. If there is confusion or concern about the balance between the advisor's expectations for student accomplishments and the program or department expectations for milestone progress, it should be explicitly addressed during the meeting, with the discussion led by the co-advisor. Department expectations should be reviewed and clarified, and a plan should be made for achieving a satisfactory balance.

Annual meetings of the Mentoring Committee should be scheduled by students in late spring (March – May) in concert with self-reports and annual evaluations. Students should email their program chair(s) to report when the meeting has been scheduled. If the meeting has not been scheduled by May 15, program chair(s) will remind the student to do so. At the conclusion of the meeting, students should send a brief summary to the committee with a cc to the program chair(s).

First-year students must schedule an additional meeting toward the end of their first term (November – December) to help them assess their own progress and performance, to address any issues in making the transition to graduate school before they become problematic, and to provide feedback as needed.

Students are encouraged to contact the program chair, director of graduate studies, department ombudsman, or department chair to discuss any problems with advising or other training and professional development matters that cannot be resolved during Mentoring Committee meetings.

FULL-TIME STUDY

Students are admitted to the department and the Developmental Program with the understanding that they will engage continuously in full-time study and research toward the PhD. The assumption is that successful doctoral training requires a full-time commitment. Full-time study typically means: 1) being in residence on campus for all 3 terms; 2) registering for appropriate course credits every term; and 3) employment for a maximum of 20 hours per week every term, limited to teaching assistant (TA) or teaching fellow (TF) in the Department of Psychology, graduate student researcher (GSR) with a primary or secondary faculty member in the Department of Psychology, or a university or national fellowship for study in psychology. Any other arrangement, including summer internships, requires the written approval of the program. This policy does not apply to unpaid clinical practicum experiences as required or recommended by the Clinical Psychology Program.

Employment overloads, in which additional teaching (TA or TF) or research employment exceeds the 20 hours per week maximum, require the approval of the advisor, program, department, and Dean's office. Employment cannot exceed a maximum overload of 10 hours per week. If a student wishes to commit to more than 20 hours per week, the Assistant Chair, Dr. Halechko, must be informed *before* the student agrees to the assignment so that approval of the Dean can be obtained. Note that failure to obtain such approval in advance usually means that the student will not be paid for the overload.

Leaves of absence from the program may be requested for one year only. Leaves are granted in exceptional circumstances (e.g., medical issues). Once advisor approval is obtained, the student must submit a written request and justification to the program for approval. Official leaves of absence are processed through the department Graduate Studies Coordinator and must be approved by the Dean's office.

TEACHING REQUIREMENT

All students in the department are required to demonstrate proficiency in teaching. This requirement may be fulfilled only by teaching an undergraduate course as a Teaching Fellow or by leading recitation sections as a Teaching Assistant in Research Methods or Cognitive Psychology and must be supervised and evaluated by a faculty member. The requirement cannot be fulfilled by course presentations, conference presentations, guest lectures, teaching assistantships that primarily involve monitoring and grading exams, or undergraduate advising. The supervising faculty member or members must indicate in writing when this requirement is fulfilled. Exemptions (e.g., for prior college teaching experience) may be requested in writing with appropriate supporting documentation and must be approved by the program(s), the Assistant Department Chair, and the Graduate Education Council. Students are also required to complete Teaching of Psychology (PSY 2970) or Practicum on University Teaching (FACDEV 2200). Students are strongly encouraged to complete these courses prior to the term in which they teach and to serve as a TA before taking on full teaching responsibilities as a TF.

RESEARCH REQUIREMENTS

Overview of Major Milestones and Timeline

There are three major requirements for the PhD beyond course work: 1) the 1st/2nd Year Project or Master's Thesis; 2) the Specialty Paper/Comprehensive exam; 3) the Dissertation. The expected timeline for completing the PhD and each milestone are governed by university, Graduate Education Committee, and Developmental Program requirements. Note that although all students in the department must follow the same standards with respect to milestone timing, the details of each milestone requirement may vary somewhat across programs. Additionally, some requirements are university-wide (e.g., basic composition of the dissertation committee; 8-month minimum between dissertation proposal and defense; statute of limitations; ETD). The best policy is to

check with the department Graduate Studies Coordinator and/or the Assistant Chair for current university requirements before completing a major milestone.

Graduate students in the Department of Psychology are expected to complete a doctoral degree in 5-6 years, excluding a final internship year for Clinical and joint Clinical-Developmental students. To meet this goal, students and faculty must be aware of the department's expectations and must work together to ensure that each student is making adequate progress. To this end, the Graduate Education Committee has established a timeline that outlines optimal, potentially problematic, and unacceptable rates of degree progress. In addition to indicating students' expected time to complete the PhD, this timeline plays a role in the annual evaluations of student accomplishments and the quality of faculty mentoring.

Table 1 outlines the rate at which students are expected to progress through the milestones established by the department's graduate training programs. Departmental faculty recognize each student's progress will vary, and for this reason, rates of progress are defined in terms of "zones" rather than specific cut-off dates for each requirement. The three zones – Green, Yellow, and Red – are defined below.

Table 1: Expected Rate of Progress

Year	1			2			3			4			5			6			7			8		
Term (Fall=1, Spr=2, Sum=3)	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Propose Masters Equivalency		X	X	X	X	X	X	X																
Defend Masters Equivalency				X	X	X	X	X	X	X	X													
Propose Specialty Exam						X	X	X	X	X	X	X	X	X										
*Defend Specialty Exam**							X	X	X	X	X	X	X	X	X	X								
Propose Dissertation									X	X	X	X	X	X	X	X	X	X	X	X				
Defend Dissertation											X	X	X	X	X	X	X	X	X	X	X	X	X	X

** Estimate: Time limits for completion of the Speciality Exam are established by each program, based upon when the exam is commenced.*

Green (optimal) zone: Completing each milestone requirement within a Year/Term that is coded as green will yield a completed doctoral degree in the expected 5-6 years.

Yellow (cautionary) zone: This is considered to be a cautionary zone. For some students (e.g., those with other markers of high performance, including strong coursework, productive research endeavors), spending some or most of the time in the Yellow Zone is not a problem as long as milestone progress does not slip into the Red Zone. For other students, time in the Yellow Zone may be viewed with a high degree of concern by faculty; this is especially true when the outer range of the Yellow Zone is approaching without a successful milestone event in sight, or when slow progress toward the degree is coupled with other signs of lackluster or problematic performance.

Red (danger) zone: Students who reach the Red Zone will be placed on Provisional Status. Entry into Provisional Status will trigger a formal letter outlining the performance criteria that need to be met (including dates for successful completion) to avoid even

more formal actions, such as progression to University Probation or termination from the student's doctoral training program.

To review the complete departmental milestone policy, please see Appendix A.

First/Second Year Project or Master's Thesis

Students are required to complete a Master's thesis or an equivalent first/second year research project. Application for the Master's degree is optional, but most students opt to receive the degree after completing their 1st/2nd year project and their required course work. Thus, the 1st/2nd year project may serve as a Master's thesis and the required core courses (5 developmental courses and 2 statistics courses – see above) will meet the department requirements for the Master's degree. Note that the graduate school requires a minimum of 30 credits for the Master's degree. To apply for the Master's degree, students must submit their project and associated paperwork to the graduate school in a format consistent with university guidelines (ETD). Additional details about graduate school requirements can be found in the Graduate Student Handbook.

Whether or not they choose to apply for the master's degree, students must follow the guidelines below in regard to the scope and procedures for the Master's research project.

Scope of Project

The Master's thesis or first/second year project should be an empirical study of potentially publishable quality. The scope of the thesis should be broad enough to merit publication, but also a study that can reasonably be completed and defended within approximately one year after the proposal has been approved by the committee, barring unforeseen circumstances. The thesis may employ either archival or newly collected data. In either case, the student should demonstrate the degree of independence in formulating the question(s), design, and conduct of the study that is appropriate to the student's stage of training and that would justify a first-author publication.

Thesis Committee

The thesis committee is composed of at least three faculty members and is chaired by the student's advisor, who must be a core or affiliated member of the Developmental Program. At least one committee member (or the chair) of the committee must be a member of the Graduate Faculty. The department Graduate Studies Coordinator has information about which faculty are members of the Graduate Faculty. Committee members are selected in consultation with the advisor based on their expertise in the topic area.

Procedure

After identifying potential committee members in consultation with their advisor, the student should talk with the faculty members and invite them to serve on the committee. It is the student's responsibility to schedule a proposal meeting. The written proposal, after it has been approved by the student's advisor, should be circulated to the committee members at least one week prior to the proposal meeting. Master's thesis proposal meetings should be held in Sennott Square and are typically scheduled for 2 hours. It is customary for the student to present a brief overview of their proposal (approximately10 - 15 minutes) prior to responding to questions. The committee may request revisions in design, procedures, or the proposal document itself before approving the project. An approved proposal is required before beginning the thesis research.

When the project is completed and the thesis written, the student presents it to the committee at an oral defense meeting. The student is responsible for scheduling a 2-hour defense which should occur in Sennott Square. After being approved by the advisor, the thesis should be circulated to committee members at least one week in advance of the defense meeting. Following a successful defense or after successful completion of required revisions, the Report on Examinations for Master's Defense card should be completed by the committee and submitted to the department Graduate Studies Coordinator. It is the student's responsibility to obtain said card and to return it, signed, to the Graduate Studies Coordinator. Failure to do so will delay graduation and granting of the degree.

Format

The Master's thesis should be in journal article format using APA guidelines. Proposals should be approximately 15 - 25 pages and the final document no more than 35 pages (excluding references and tables; 1" margins; 12 pt font). Students are encouraged to submit the thesis for publication and presentation at national scientific meetings. The format as a journal article is meant to facilitate submission for publication with minimal revisions. If the student decides to submit the thesis for a Master's degree, the final document must be submitted to the Graduate School in ETD format. Note that this may require an additional form and signatures from the committee, which should be obtained at the time of the defense. See the university's Graduate School webpage for detailed instructions (www.pitt.edu/~graduate).

Timeline

As for all major milestones, students in the Developmental and Joint Clinical-Developmental programs are governed by the department-wide "zone" system. This means that students should propose the Master's thesis as early as possible, preferably by the end of the first year or the first term of the second year, but no later than the summer term of their second year. Students who fail to propose a thesis by the end of their second year will enter the Red Zone and be placed on provisional status with one term to complete the requirement.

Students should defend their thesis as early as possible, preferably by end of their second year, but not later than the end of the third year. Students who fail to do so will enter the Red Zone and be placed on provisional status with one term to complete the requirement.

Students who are placed on provisional status more than once (even if the milestones are completed while in the Red Zone) are likely to be dismissed from the graduate program, i.e., will not be permitted to continue on to doctoral candidacy.

Students who have completed a Master's thesis at another institution may request an exemption from the thesis requirement. Exemptions are granted by the Developmental faculty upon request by the student or advisor, and after determining that the completed thesis is equivalent to our requirements. At a minimum this means a formally prepared document reporting an empirical study that the student completed under the supervision of a faculty member. In most instances, a reading committee of up to three program faculty is formed to evaluate whether the thesis meets program requirements. In some instances the committee may request that the student be orally examined as well.

Preliminary Evaluation

While the Psychology Department does not admit students into a separate Master's degree program, students are not automatically eligible to pursue the PhD degree upon completing the Master's thesis or first/second year project requirement. Rather, following university requirements, the program conducts a formal Preliminary Evaluation of each student after completion of the Master's thesis to determine whether the student will be recommended to continue in the graduate program. Successful completion of earlier requirements does not guarantee that the student will be recommended to continue his/her studies toward the PhD. The program faculty also consider other critical factors, such as overall quality of performance, and professional ethics and competence, in making a determination.

The Preliminary Evaluation will be conducted after the successful defense of the Master's thesis but before the student is permitted to take the Comprehensive Examination. If the faculty concludes that the student is not eligible for further study, he/she will be terminated from the program at that point. If the decision is positive, the student will be permitted to take the Comprehensive Examination. It should be noted that this action is highly unusual, given the high caliber of our students.

Specialty Paper/Comprehensive Examination

Prerequisites and Sequence

As one of the university requirements for the PhD, all students must pass a Comprehensive Examination. In the Psychology Department this takes the form of a Specialty Paper. This consists of a scholarly review paper and an oral defense. To be eligible to write the Specialty Paper, students must have completed the program's core required courses and the Master's thesis. Students cannot form a dissertation committee

until the Specialty Paper is successfully defended. Exceptions to this sequence are extremely rare, and must be approved by the program based on a written petition.

Scope and Timing of Specialty Paper

The Specialty Paper is the first independent opportunity to think and write about an area of scholarship in some depth. The general aim of the Specialty Paper is to consider a focused question in light of a broader literature. There should be a central question that is especially illuminated by review of literatures that are not typically considered in reference to the question. Thus, secondary literatures should be brought to bear on some primary literature. The paper should be a critical, integrative review of the research that will motivate the dissertation. It should be able to stand alone (without the empirical studies that will follow from it) as a conceptualization of an area of inquiry.
The Specialty Paper should generally be proposed within 6 months of defending the Master's thesis, typically by the end of the third year and not later than the end of the fourth year. *Maximum length is 45 pages of text. Maximum writing time is four months (six months for Joint students).*

Note that length, writing time, and the nature and amount of permitted feedback vary across programs. Students in the Joint Clinical-Developmental Program are governed by the Clinical Program requirements for this milestone.

Refer to the Specialty Paper guidelines in Appendix B for full details, which are abbreviated below.

Specialty Paper Committee

The Specialty Paper committee is composed of at least three faculty members and is chaired by the student's advisor, who must be a core or affiliated member of the Developmental Program. At least two members of the committee must be core faculty members of the program. Students are encouraged to invite faculty members from outside the department if their paper would benefit from additional expertise. The general expectation is that Specialty Paper committee members will also serve on the Dissertation committee, although this is not a requirement.

Specialty Paper Proposal

The proposal for the Specialty Paper should be developed in consultation with and approved by the student's faculty advisor. The proposal should be approximately 5 - 15 double-spaced pages including references and should include the central question of the paper, the rationale for its importance, a description of the literatures that will be brought to bear on it, and the rationale for their inclusion. The typical proposal also includes an outline and a representative reference list. The proposal should be viewed as a work in progress that may be revised based on committee comments during the proposal meeting. If revisions of the proposal are requested, the 4-month (or 6-month for Joint students) writing clock begins once revisions are approved by all committee members.

Note that proposal of students in the Joint program are limited to 8 pages, including a 2 – 3 page overview, a brief outline, and selected references.

Procedure

After identifying potential committee members in consultation with the advisor, the student should contact the potential committee members to determine their willingness to serve. After approval by the advisor, the written proposal should be circulated to the committee members at least one week prior to the proposal meeting. Specialty paper proposal and defense meetings should be held in Sennott Square and are typically scheduled for 2 hours. It is customary for the student to present a brief overview of the proposal or final paper (approximately10 - 15 minutes) prior to responding to questions.

Following approval of the proposal by the committee, students should work independently on the paper. Deviations from the original approved outline based on a more complete literature review are fine and may be discussed with the faculty advisor and with committee members. Guidelines differ for Developmental and Joint Clinical-Developmental students. For Developmental students, discussion with faculty advisors about the Specialty Paper is encouraged, including the review of written drafts. The faculty advisor may not provide written feedback, however, until the penultimate version of the paper when nominal written feedback is permitted. Discussion with other students is also encouraged, including exchange and discussion of preliminary and final written drafts, but written feedback may not be provided. For Joint students, discussion with faculty advisors about the Specialty Paper is encouraged, but written drafts should not be exchanged. Discussion with other students is also encouraged, but written drafts should not be circulated.

The page limit for the Specialty Paper is 45 pages of text (double-spaced, 1" margins, 12 pt font), excluding references. The completed Specialty Paper must be distributed to all members of the Specialty Paper committee at least one week prior to the oral defense.

The oral defense meeting should be attended by all committee members. Based on both the written paper and the oral defense, the Specialty Paper committee will decide among three grade options: fail, pass, or pass with honors. The committee may request revisions to the document before determining the grade. Students have two chances to pass the requirement. If the defense is not passed initially, the committee may both request revisions and schedule a second meeting, typically within one month unless revisions are extensive. After successful completion of the requirement (including any revisions), the committee will sign the "Report of Examinations for the Doctoral Degree" card and the advisor will return it to the department Graduate Studies Coordinator. It is the student's responsibility to provide this card to the committee, to secure the necessary signatures, and to ascertain that the Graduate Studies Coordinator has received the fully signed card. Failure to do so will delay admission to candidacy.

If the specialty paper committee does not approve the second defense, the program faculty will make the final decision, based on the Specialty Examination and other performance indicators, concerning the student's status in the program. Although it is rare to fail a second defense, a student who does so is usually terminated from the program.

Admission to Doctoral Candidacy and Dissertation

Prerequisites

Upon passing the Specialty Paper/Comprehensive Examination, and with the approval of the program, the student may begin the doctoral dissertation.

Scope of the Dissertation

The doctoral dissertation is a scholarly document that reports an original empirical contribution to the scientific knowledge base in a student's area of expertise. It should be of publishable quality. For the dissertation, students are expected: a) to play a significant role in the development of an important question or set of questions in their selected area of research; b) to be actively involved in the process of designing a study, collecting data, and/or developing measurement/analytic procedures to address the question(s). Under most circumstances, data collection will be designed specifically for the dissertation project, but it is understood that time or monetary constraints sometimes do not permit students to plan dissertations that depend on original data collection. In such cases, use of pre-existing data from large scale or longitudinal studies may be appropriate. When students use data from a pre-existing data set, they are still expected to play an independent role in formulating the questions (e.g., hypotheses drawn from the advisor's grant application do not constitute an appropriate dissertation topic), and in designing or facilitating new measurement or analytic procedures appropriate to the topic (e.g., the project must involve more than a simple data analysis involving existing variables).

Because candidates for research positions will be evaluated in terms of their projected ability to develop a laboratory and to produce novel scholarship, it behooves students to collect original data at some point in their graduate career if not for the dissertation. Faculty mentors are encouraged to create opportunities for trainees to design and carry out empirical studies during their graduate training in addition to working with existing data sets. Toward this end, all students are encouraged to develop experience in a) writing grant and IRB proposals; b) collecting data or implementing relevant procedures that reflect the current state of the science; c) developing new measures; and d) participating in all stages of a project from start to finish inasmuch as possible.

Dissertation Committee

The dissertation committee is composed of at least four faculty members and is chaired by the student's advisor, who must be a core member of the Developmental Program. Four members of the dissertation committee must be members of the Graduate Faculty. Three members must have primary appointments in the Department of Psychology and

two members must be core faculty members of the Developmental Program. One member must be a faculty member with a primary appointment outside the Department of Psychology who is also a member of the Graduate Faculty. Students often have five committee members (this is required of Joint Clinical-Development students), selecting an additional person with expertise in the student's area of interest. The department Graduate Studies Coordinator should be consulted about who is a member of the Graduate Faculty as this changes frequently.

Procedure

An approved dissertation proposal is required before beginning the dissertation research. After identifying potential committee members in consultation with the advisor, the student should contact the potential committee members to determine their willingness to serve. Before finalizing the dissertation committee, the student should submit the names of committee members to the department Graduate Studies Coordinator for vetting. This will guarantee that the committee has been constituted according to current university regulations. Failure to so constitute the committee risks the denial of the PhD even after a successful defense.

Upon approval by the advisor, the written proposal should be circulated to the committee members at least one week prior to the proposal meeting. The dissertation proposal meeting should be held in Sennott Square and is typically scheduled for 2 hours. It is customary for the student to present a brief overview (approximately 10-15 minutes) of the proposal prior to responding to questions. After final approval of the proposal (including any revisions) the committee will sign the "Application for Admission to Candidacy for Doctoral Degree" form, which should be returned to the department Graduate Studies Coordinator. The university requires this form to be signed and processed a *minimum of eight months prior to the final oral defense*.

Formal admission to doctoral candidacy does not occur until the student has an approved dissertation proposal, which may include revisions following the proposal meeting, and the required form is signed and processed by the Dean's office. Upon final approval, the student and each committee member will receive a formal letter from the Dean confirming admission to candidacy.

After completing data collection, analysis, and write-up, the dissertation must be defended before the committee at an oral examination. The university requires that all dissertation defense dates and locations be published in the University Times. Thus, the department Graduate Studies Coordinator must be notified as soon as the dissertation defense is scheduled so that it may be properly publicized to the department and university community. Upon approval by the advisor, the dissertation should be circulated to committee members at least one week in advance of the defense meeting.

Dissertation defenses should be schedule for 2 hours and should take place in the Martin Colloquium Room in Sennott Square. All department faculty and students are invited and encouraged to attend. Family, friends, and undergraduate lab members are also invited to

the defense. The public defense occurs first, during which students present their research in the form of a 45-minute colloquium. This presentation should be aimed at those who have not read the written document. The presentation is followed by a general question period of approximately 15 minutes during which any member of the audience may question the student. Following this, and no more than 60 minutes after the presentation has begun, non-committee members will be excused and the candidate will respond to additional questions during a closed meeting with committee members for approximately one hour. Other faculty are permitted to remain for this part of the defense, but typically do not ask questions. Minor or major revisions may be requested by the committee, and the dissertation may be approved or, in rare cases, disapproved. After successful completion of the defense (including any revisions), the committee will sign the "Report of Examinations for the Doctoral Degree" card and the ETD forms and return them to the department Graduate Studies Coordinator. It is the student's responsibility to secure the card and the required signatures and to return it to the department Graduate Studies Coordinator. Failure to do so will delay graduation.

Statute of Limitations

According to university regulations, students have a maximum of 10 years from matriculation to complete all requirements for the PhD degree. This clock is temporarily stopped during an official leave of absence.

STUDENT FUNDING

Traditionally students receive full financial support, including tuition remission and health benefits, while pursuing doctoral training in the Psychology Department. Usually, funding carries with it a work requirement (up to 20 hours per week), although some students are supported on fellowship or training grant funds with no formal work requirement. Funded positions include teaching assistantships, teaching fellowships, and graduate research assistantships. Competitive scholarships are also available through the University for incoming and advanced students of exceptional merit. Students are encouraged to apply for university and national fellowships beginning in their first year. See the department website for details about these opportunities.

DEPARTMENTAL STUDENT TRAVEL AND RESEARCH FUNDS

The Department offers travel and research funds to all students in good standing. There are two tiers of such support depending on a student's stage in the program. Before completion of the Master's thesis (or first/second year research project), students are eligible to receive up to $300 per year. After completing the Master's thesis (or first/second year research project), up to $600 per is available to students. Students may use their allocation to support a flexible mix of scientific travel, research expenses, and training-related expenses (e.g., internship travel costs, scholarly book purchases, academic workshop fees). Students must seek pre-approval from the Assistant Chair in the Department of Psychology for any travel or research-related costs. Additional travel grants are available through the Dietrich School of A&S, the Graduate Student

Organization, and the Graduate and Professional Student Government. See the department website for details about these opportunities and how to apply for them.

BROWN BAGS, COLLOQUIA, AND OTHER PROFESSIONAL ACTIVITIES

Brown Bags

Brown Bags are relatively informal research presentations by students and faculty within and outside of the program and department. Organized and coordinated by a faculty member and a graduate student, they are scheduled on a term-by-term basis and occur once or twice per month during the academic year. Because they contribute to the scholarly community and to students' professional development, regular attendance is expected at Developmental Brown Bags by *all* Developmental students, including those in the Joint Clinical/Developmental Program; absence is noted and figures in students' annual evaluation re: scholarly growth and participation in the program's intellectual community.

Pizza Seminars

A special version of the Brown Bags, these occur irregularly, often in relation to an upcoming talk or a recently published controversial or potentially ground-breaking article. Students are encouraged to suggest papers or topics for Pizza Seminars to the program chair or Brown Bag coordinators.

Departmental Colloquia

Department colloquia are research presentations given by nationally and internationally renowned senior scholars whose research is likely to be of general interest to the department. Regular attendance is expected for *all* colloquia, even those outside the student's interest/research area; as with Brown Bags, absence is noted and figures in the student's annual evaluation.

Presentations

All students are expected to present at the Developmental or Clinical Brown Bag series and are encouraged to present the proposed master's or 1st/2nd year project, the completed project, and the dissertation proposal. Students are also encouraged to use the Brown Bags as a forum to practice talks that they will be giving at conferences or as a forum to discuss work in progress.

ANNUAL STUDENT EVALUATIONS

Each year the program's faculty evaluate graduate students' progress and scholarly development and provide written feedback. The specific items addressed in the evaluations depend on the student's year in the program and any unique issues or

concerns applicable to that student. Yearly evaluations are based on input from students' self-reports and faculty assessments.

Student Self-Reports

Each spring semester every student must submit a self-evaluation form to the department that outlines their progress in degree requirements, training activities, and scholarly achievements during that academic year. Specifically, students are asked to report on courses taken and milestones achieved, journal submissions and publications, conference and colloquium presentations, ongoing research projects, and teaching and mentorship experiences. Each student also submits an updated curriculum vita. Self-reports provide an opportunity for students to reflect on their own progress in meeting the program's requirements as well as their individual goals. These self-reports are shared with the program chair and utilized in faculty evaluations.

Student Evaluations

Faculty evaluate student progress at the end of each spring term. This process begins when students submit self-reports to the program. Faculty meet and review students' transcripts, self-evaluations, and reports of student performance by faculty who have had contact with students in classes, as committee members, and so on. These evaluations address several indicators of academic progress, professional development, and scholarly productivity: 1) completion of program milestones and course work; 2) mastery of disciplinary knowledge (theory, research, methods); 3) progress in research, writing, and presentation skills; and 4) overall professional growth and development, including publication activity and participation in scientific meetings. The program chair, in consultation with the advisor, then provides students with written feedback on their performance and standing in the program. Written evaluations identify students' areas of strength and weakness (as applicable), milestones remaining to be completed, and offer guidance on continuing development into independent researchers and scholars.

Students receive a formal evaluation letter from the program chair by the end of July. Joint students receive one letter that reflects the feedback from both the Developmental and Clinical faculty. Students are strongly encouraged to use their annual evaluation letter as a springboard for discussions with their advisors about their academic/scholarly progress and plans as they begin the next academic year.

Important forms to remember:

Master's Defense card signed by committee (and ETD form if Master's degree is sought)
Comprehensive Examination card signed by committee
Dissertation Proposal form and admission to candidacy form signed by committee
Dissertation Defense form and ETD form signed by committee

DEVELOPMENTAL PROGRAM CORE FACULTY

(Note that not all core faculty accept or train graduate students. However, they participate in program training and policy decisions and may serve on Master's & Specialty Paper committees)

Celia Brownell, Ph.D. Professor, Department of Psychology; Developmental Program Chair
Sophia Choukas-Bradley, Ph.D. Assistant Professor, Department of Psychology
Jennifer Cousins, Ph.D. Lecturer, Department of Psychology
Jennifer Ganger, Ph.D. Senior Lecturer, Department of Psychology
Jamie Hanson, Ph.D. Assistant Professor, Department of Psychology; Research Scientist, Learning Research and Development Center
Jana Iverson, Ph.D. Professor, Department of Psychology
Klaus Libertus, Ph.D. Assistant Professor, Department of Psychology
Melissa Libertus, Ph.D. Assistant Professor, Department of Psychology; Research Scientist, Learning Research and Development Center
Robert B. McCall, Ph.D. Professor, Department of Psychology; Co-Director, University of Pittsburgh Office of Child Development
Daniel S. Shaw, Ph.D. Professor, Department of Psychology
Jennifer Silk, Ph.D. Associate Professor, Department of Psychology
Mark Strauss, Ph.D. Associate Professor, Department of Psychology
Elizabeth Votruba-Drzal, Ph.D. Associate Professor, Department of Psychology; Research Scientist, Learning Research and Development Center
Ming-Te Wang, Ph.D. Associate Professor, Department of Psychology in Education, Learning Research and Development Center (Secondary appointment in Psychology)
Heather Bachman, Ph.D. Associate Professor, Department of Psychology in Education (Secondary appointment in Psychology)

Emeritus Faculty
Susan B. Campbell, Ph.D. Professor Emerita, Department of Psychology
Carl Johnson, Ph.D. Professor Emeritus, Department of Psychology in Education (Secondary appointment in Psychology)
Sharon Nelson-Le Gall, Ph.D. Professor Emerita, Department of Psychology

See department website for full details about faculty including CVs, research interests, selected publications, and links to research labs.

APPENDIX A: DEPARTMENTAL POLICIES ON EXPECTED PROGRESS TOWARDS DEGREE

April, 2011

A. Overview

All graduate students in the Department of Psychology are expected to complete a doctoral degree in a timely fashion (4-6 years, excluding a final internship year for Clinical students). To meet this goal, it is important that students and faculty work together to ensure that each student is making appropriate progress and that the department's expectations are clearly communicated. To this end, the Graduate Education Committee has established a timeline that outlines optimal, potentially problematic, and unacceptable rates of progress. In addition to providing a communicative function, this timeline will play a role in the annual evaluations of student accomplishments and the quality of faculty mentoring.

B. Timeline indicating expected progress towards degree

Table 1 outlines the rate at which students are expected to progress through the milestones associated with the Department's graduate training programs. Faculty in the department recognize that the progress of each student will vary, and for this reason rates of progress are defined in terms of various "zones," rather than specific, department-wide cut-off dates for each milestone requirement. The three zones – green, yellow, and red – are defined below.

Table 1: Expected Rate of Progress

Year	1			2			3			4			5			6			7			8		
Term (Fall=1, Spr=2, Sum=3)	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Propose Masters Equivalency		X	X	X	X	X	X	X																
Defend Masters Equivalency				X	X	X	X	X	X	X	X													
Propose Specialty Exam						X	X	X	X	X	X	X	X	X										
*Defend Specialty Exam**							X	X	X	X	X	X	X	X	X	X								
Propose Dissertation									X	X	X	X	X	X	X	X	X	X	X	X				
Defend Dissertation											X	X	X	X	X	X	X	X	X	X	X	X	X	X

** Estimate: Time limits for completion of the Speciality Exam are established by each program, based upon when the exam is commenced.*

Green (optimal) zone: Completing each milestone requirement within a Year/Term that is coded as green will yield a doctoral thesis in the expected 4-6 years.

Yellow (cautionary) zone: This is considered to be a cautionary zone. For some students, spending some or most of the time in the Yellow Zone is not a problem as long as Milestone progress does not slip into the Red Zone. This is especially true if performance is otherwise high (e.g., coursework is strong, the student has multiple research projects, the work has resulted in conference presentations and journal submissions), or if the student experienced a temporary research or personal setback that stalled progress for a short while. For other students, time in the Yellow Zone may be viewed with a high degree of concern by faculty. This is especially true when the outer range of the Yellow Zone is approaching without a successful Milestone event in sight, or when slow progress toward the degree is coupled with other signs of lackluster performance. There are multiple factors that may place a student in this less optimal position. These include unanticipated research setbacks, a nonproductive student- advisor relationship, personal setbacks caused by physical or mental health problems, a low degree of enthusiasm about the academic research track, or a sense of isolation from the

departmental faculty and graduate student peers. Regardless of the cause, it is imperative that students and faculty work togetherto identify the causes behind a problematic level of performance and develop a plan for positive change. Students should not wait for faculty to determine that a problem exists – instead, if they are concerned about their progress they should confer with their advisor, Milestone committee members, the program chair, the Director of graduate Studies, and/or the Departmental Ombudsman. Depending upon the factors that have slowed performance, appropriate actions could include changing research projects, adjusting the scope of a Milestone, switching advisors, seeking clinical care, asking for a leave of absence from the program, withdrawal from the training program, etc.

Red (danger) zone: Students who reach the Red Zone will be placed on Provisional Status. Entry into Provisional Status will trigger a formal letter outlining the performance criteria that need to be met (including dates for successful completion) to avoid even more formal actions, such as progression to University Probation or termination from the student's doctoral training program.

C. Productivity and experience targets

A student's rate of progress through the various training milestones provides a valuable internal measure of a performance. But students should also be mindful that individuals who are external to the department will typically give more weight to measures of achievement that appear within an individual's curriculum vitae. The most important of these measures is the number of peer-reviewed publications, especially first-authored publications. A variety of other measures, such as the number of conference presentations, history of honors and awards, and documented teaching and mentoring experience, also tend to receive close examination. With this in mind, the department has also established the following recommendations for students:

1. Students are encouraged to present their work locally at least several times during their graduate career. There are multiple poster session opportunities each year and program-level brown bags that provide valuable training opportunities.
2. Students should present a first-author poster or talk at a national forum at least every other year. Students interested in an academic research career should strive to leave the program with at least three national conference presentations, with at least two of these being first-author submissions.
3. Students should aim to submit their initial first-author publication by the end of their 3rd year. An earlier submission is possible, and the lack of a submission by the end of the 4th year is a point of concern. The first paper will often derive from the Master's thesis.
4. Throughout training, students should aim to be working on 1-3 research projects at any given time (not necessarily all as the first author). The number of projects will depend upon several factors, including the amount of effort each project requires, the research environment in which the student is situated, and the ability of the student to juggle multiple projects and responsibilities.
5. Students should tackle a dissertation project that is expected to produce at least one first-author publication. This work should be submitted within one year of completing the dissertation.
6. Students interested in an academic research career should strive to leave the program with at least two submitted publications and a third in preparation from the dissertation. At least two of these publications should be first-author publications.
7. All students should develop a teaching philosophy and record of teaching success. Students interested in a teaching career should have experience teaching two or more different courses.

8. Students are encouraged to take advantage of undergraduate mentoring opportunities, which can help develop and document research training and mentorship skills.
9. Students are encouraged to seek out and take advantage of opportunities to compete for fellowships and other academic awards. These can provide valuable sources of funding and they serve as indicators of research quality and intellectual achievement.

D. Evaluation of student progress

Each program is expected to provide their students with an annual letter of evaluation. These efforts will be complemented by a departmental review process, which will particularly focus on each student's milestone progress. At the beginning of each summer, the self-report data submitted by each student will be evaluated by the Director of Graduate Studies. Each student will be sent a standardized letter that will indicate his or her current zone, along with recommended milestone goals for the coming year. For
any student who is at risk of entering the "red zone" in the coming fall term, the letter will also serve as a warning that the student must take one of the following actions by Sept. 1st of the relevant year to avoid placement on Provisional Status:

1) provide documentation that expected milestone has already been successfully completed.
2) successfully complete the required milestone before the start of the fall semester.
3) file a petition for an extension of the "yellow zone" time line that is accepted by the Graduate Education Committee. A petition will take the form of a letter addressed to the Director of Graduate Studies and it must be received before the start of the fall term. The petition must clearly state the extenuating factors that account for the delay in progress and it must provide a clear plan for how and when the delay in completing the relevant milestone will be overcome. It is expected that "yellow zone extensions" will be granted only in rare instances.Students are advised to confer with the Director of Graduate Studies and with the chairs(s) of their training program(s) to obtain feedback on the likely outcome of a petition effort.
4) request a leave of absence or withdraw from training.

At the first GEC meeting of each fall term, the progress of students who were at risk for entry into provisional status will be reviewed. Students with pending petitions will be invited to attend this meeting to present their case, if desired. Any student who has failed to meet the milestone deadline and (a) who is not granted a yellow-zone extension, or (b) not requested a leave of absence or withdrawn from training will receive a letter indicating that they are now on Provisional Status. The letter will indicate that the student must satisfactorily complete the required milestone by December 31st of the current year, or else a final decision will be made to terminate the student. The effective date of the termination will be April 30th of the coming spring semester, so that students will always have a final semester to make new plans and make one last effort to wrap up a Masters or Doctoral thesis.

APPENDIX B. DEVELOPMENTAL PROGRAM GUIDELINES FOR WRITING THE SPECIALTY PAPER

May, 2013

The specialty paper fulfills the graduate school requirement for the PhD comprehensive exam. This requirement reflects a student's mastery of a specialized research literature, including relevant theoretical perspectives, the state of the empirical science, and the core conceptual and methodological issues in the topic area. The specialty paper is a literature review that demonstrates advanced scholarship and that often brings a novel theoretical perspective to the field. Typically the scope of the review is broader than a dissertation, but often encompasses the questions to be addressed by the dissertation

What is a literature review?

A literature review summarizes, synthesizes, and critiques the existing literature in a focused area of investigation. A good literature review is not simply a string of summaries of empirical research papers. Instead, it is a systematic, in-depth, novel, problem-oriented treatment of one or more specific research literatures, considering both theory and methods. A good review strikes a balance between the discussion of theoretical and/or conceptual issues and a focus on methodological concerns. Concretely, a good literature review does the following:

(1) identifies one or more major unresolved conceptual issues in an area of investigation

(2) describes the primary theoretical frameworks that have been used to interpret the empirical results (note: this can include integrating different bodies of literature to inform a particular issue or question)

(3) systematically synthesizes the empirical results in the area(s) to draw conclusions about the state of the research, attending both to the statistical significance of findings and to the strength (effect sizes) of underlying associations when relevant

(4) identifies methodological strengths and limitations in the research literature and considers whether these help to explain potentially conflicting results or conclusions

(5) evaluates conceptual or theoretical limitations of past work

(6) critically summarizes and integrates the existing literature around common themes and/or continuing issues

(7) identifies areas for further study, &/or suggests possible ways of resolving conflicting or inadequate empirical results, &/or proposes new conceptual models or methodological/statistical solutions for the identified issues

How does one write a literature review?

The first step in writing a literature review is to search the literature for relevant papers, both historical and current, theoretical and empirical. For the specialty paper, this will be a substantial literature and the initial search process could take some time. Next, one must read the papers and identify the major issues

that each study addresses. In doing this, it may be helpful to create an annotated bibliography. An annotated bibliography summarizes each paper, noting (1) the research question(s) addressed by the study; (2) the methods used to investigate the research question(s); (3) the major findings and how they are interpreted; (4) patterns of findings and effect sizes to characterize the strength of associations; (4) any criticisms or concerns about the study. It can be useful to summarize each study on a separate page so that in writing the review they can be grouped and regrouped as needed. Some students find it more helpful to use tables to summarize studies along the main points of comparison. Note that not all of the literature read will be summarized in the final paper, and some will not be included or cited at all. However, all of it will contribute to mastery of the given area as well as one's ability to evaluate it and integrate it with other relevant literatures.

Next, the studies are grouped according to the major questions they address. Within each group, the studies are organized along dimensions that are relevant to the review (e.g., specific sub-issues, specific age groups, specific methodologies). It is often useful to develop a strategy for coding individual studies across these dimensions to identify patterns in the literature. This can be exceptionally useful in explaining inconsistencies in research findings. Based on these groupings, a detailed outline for the paper should be generated. This outline will provide the structure for the paper. It should be organized around a thesis or clearly articulated problem or question. It should identify and organize the specific questions or issues to be addressed and the argument(s) to be made and should anticipate the conclusions.

Finally, the paper is written using the outline as a guide. Particularly when the literature is especially large or methodologically varied, it is useful to use the outline as a guide in deciding what is most relevant. The final paper should include an introduction, a body, and a conclusion or set of conclusions. The introduction should provide a roadmap for the paper. It will introduce the area of study, articulate the thesis or problem, outline or foreshadow the major issues that will be addressed, and briefly state the conclusions that will be reached. The body should be organized into major sections that address the primary questions identified. The research reviewed in each section should be presented in terms of how it addresses that major issue. Each section of the review should systematically and thoughtfully synthesize empirical findings by identifying the strength and consistency of associations uncovered in prior studies. It is important to provide enough information about the methods of each study so that readers can understand the methodological strengths and weaknesses of the literature. Research synthesis tables are often a useful tool for summarizing empirical findings across studies. Instead of describing each study in detail in the text of the document, tables can be used to present detailed methodological information from each study, including effect sizes when relevant. The text of the document can then describe the major patterns of findings across studies and discuss methodological strengths and weaknesses. Students are encouraged to avoid broad generalizations about patterns in the literature (e.g. "the evidence is mixed") and to be specific about what the weight of the evidence suggests about the question. This document is not expected to be a formal meta-analysis, but meta-analytic techniques are often useful for converting the results of studies to a common metric for synthesizing the primary findings in a given literature. For more information on how to synthesize findings across research studies see Cooper, Hedges, & Valentine (2009), *The Handbook of Research Synthesis and Meta-Analysis*. The conclusion should integrate the main points made in the body of the review, evaluate the state of scientific knowledge about the major issues addressed, and consider how these inform theory. This is also an important place to suggest continuing or new questions that have arisen from the review, unresolved

conceptual and/or methodological issues, and other avenues for future research. This final section is more difficult than it may seem, so plenty of time should be allotted to it.

Format & scope of the paper

The specialty paper should be a critical, integrative review of research and theory that will motivate the intended dissertation. It should be able to stand alone as a critical evaluation of one or more literatures and a conceptualization of an area of inquiry. Maximum length is 40 pages of text. Maximum writing time is four months from the final approval date of the proposal. Students in the Clinical-Developmental program may instead follow Clinical program guidelines with the approval of their advisor (i.e., 45 pages of text; 6 months writing time).

It is strongly recommended that the student target a particular journal or two to which the paper will ultimately be submitted. This should be done before beginning the proposal and in consultation with the advisor. The target journal will depend on the topic and scope of the paper.

The specialty paper is considered an independent achievement by the student, not the product of collaboration. However, as indicated in other sections, the student should seek input from the advisor &/or committee members at every step of the process, and the advisor should be sure the student is making appropriate progress.

The proposal

The specialty paper committee is typically the intended dissertation committee. The committee must approve the scope and plan for the paper before the student begins writing the paper itself. The student should have two formal meetings with the specialty paper committee: the first is to discuss and approve a written proposal and a set of core references; the second is to evaluate the end product during an oral defense.

The proposal should include the following: 1) 2 – 3 pages that introduce the question and place it in its larger conceptual and empirical context, including the primary issues, the aims of the paper, and the literatures to be reviewed; 2) 3 – 5 pages outlining the major sections of the paper and the question(s) or issue(s) to be addressed in each one, with references indicated as relevant; 3) a list of core references. The proposal should reflect a thorough understanding of the relevant literatures, including the current issues and the unresolved questions. If a particular journal is being targeted, this should be included as part of the proposal. Clinical-Developmental students are limited to 8 pages, including references, for the proposal.

As part of preparing the proposal, sufficient time should be given to becoming familiar with the literature, including theory and conceptual issues, empirical approaches, findings, and issues for further research. Regular meetings should be scheduled with the advisor while preparing the proposal, and written feedback on drafts of the proposal is strongly encouraged. A substantial reference list should be included as part of the proposal, although the student is not expected to have read everything that will ultimately contribute to the review. It may be useful to include an annotated bibliography or a table of relevant studies as part of the proposal. Although neither is required, this sort of summarizing can contribute to a more focused and detailed proposal. Superficial reading in preparation for the proposal can produce a

vague or poorly informed document and is likely to make the proposal meeting more difficult and the writing of the specialty paper itself more challenging.

It is appropriate for the committee to ask for revisions of the proposal before approving it and permitting the student to begin writing the paper. The aim of revisions is to improve the quality of the paper and ensure its feasibility within the page and time constraints. Accordingly, the committee may recommend that the intended scope be expanded or reduced, that particular literatures be added or removed, or that the organization or focus be changed. Requested revisions may also be less substantive, such as adding detail to the outline or spelling out particular issues more precisely. If revisions are requested, they should typically be completed within one month of the proposal meeting.

The defense

The committee's final evaluation of the paper will be based in part on the written product and in part on the oral defense. The advisor should approve the final draft of the paper before it is presented to the committee for final evaluation. Thus, the student must provide the penultimate draft to the advisor with sufficient lead time for the advisor to provide feedback and to determine whether it can go forward for defense. Clinical-Developmental students will not complete this step; instead they will submit the final draft to the advisor and the committee at the same time.

The courses of action open to the committee after the defense are: Pass with Honors; Pass, no revisions; Pass, contingent on revisions; Pass, contingent on re-examination orally (which may or may not include written revisions); Fail. As part of its final evaluation the committee should provide feedback that will not only improve the paper itself and move it toward publication, but that will also be useful in proposing the dissertation research.

Revisions may be requested under the following circumstances: incomplete or inadequate coverage or mastery of relevant literature; inadequate focus, analysis, or conceptualization of the problem area, of one or more particular issues, or of some aspect of the literature; need for clarification or further development of an idea, argument, or conclusion; need for greater attention to the conclusions and/or implications; poor writing or organization. Sometimes weaknesses in the written document can be remedied through discussion during the oral presentation, but sometimes such weaknesses are amplified during the oral presentation. In the latter case another oral presentation may be requested following rewriting. The rule of thumb is that revisions will be requested if they stand to improve the student's mastery, conceptualization, &/or presentation of the area. Revisions are not requested as an empty exercise. If the student fails at this point in his/her graduate career, she/he will not be permitted to go on to the PhD. This is a graduate school regulation.

Guidance and feedback from the advisor and committee

The program views the process of writing the specialty paper as similar to how any scholar might write a major paper or grant proposal. While the paper must be written independently, it is completely appropriate to seek input and feedback from one’s advisor and committee members during the writing process; indeed, this is expected and encouraged.

The topic and coverage of the specialty paper should be discussed extensively with one's advisor while preparing the proposal. The proposal should carefully and precisely delineate the questions and issues to be addressed and clearly define the literatures that will be included in the review. It may be worthwhile to discuss the project with other committee members while preparing the proposal. Inadequate specificity in the specialty paper proposal can give rise to significant challenges during the proposal meeting and as students move forward to write the paper.

Discussions with the advisor and committee members can include both central ideas and organizational structure as the paper is initially formulated and outlined and as it takes shape during the writing process. This can include the coverage of the literatures to be reviewed, strengths and weaknesses of the literatures, and the major conclusions drawn from each of the literatures. Finally, discussions may also involve conversations and advice concerning specific challenges in systematically identifying and critically reviewing the literature, organizing one's thoughts and writing, and drawing larger conclusions. Students are encouraged to discuss openly with their advisor the most effective strategies for making progress and feeling satisfied with how the paper is developing, including how frequently to meet and the amount and level of feedback that would be most useful. For students in the Developmental program, oral feedback can be sought on partial drafts of the paper, and written feedback can be sought on the penultimate version of the paper. Written feedback can include comments and copy-editing, but cannot include substantive changes to the content of the paper. For students in the Clinical-Developmental program, Clinical program guidelines with respect to feedback are to be followed.

Timeline

As indicated in the Milestones Zones and Deadlines, students should spend no more than three terms total on the specialty paper after the Master's defense, including preparing the proposal. Typically, the specialty paper will be proposed during the third year of training. To remain in good standing, the proposal must be completed and approved by no later than the end of the fourth year of training. The writing time for the paper itself is four months from the date of the approved proposal (six months is an option for students in the Clinical-Developmental program). Students are expected to maintain their research involvement while writing the proposal and paper, but coursework should be limited as much as possible. Students who are full-time TF's, who have unusually heavy course loads (e.g.,Clinical- Developmental students; CNBC students), who are "retooling" in a new area of inquiry which requires a great deal of additional background reading, or who are involved in multiple other publication projects may take somewhat longer than others to complete the process. It is best to work out a timeline with the advisor soon after completing the Master's defense. The defense date for the final paper should be set during the proposal meeting, taking into account the time needed to complete any revisions requested of
the proposal.

Examples

To assist students with this process, examples of successful proposals and final papers are available in the program Dropbox. Published revisions of specialty papers are also available. It should be noted that in some cases extensive revisions were required to generate a publishable version. To obtain access to the shared Dropbox, please contact Mark Strauss (strauss@pitt.edu).