

Developmental Graduate Handbook

University of Utah

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A. THE DEVELOPMENTAL PSYCHOLOGY PROGRAM

A.1 PREFACE TO HANDBOOK

This handbook provides information about the Developmental Psychology Program at the University of Utah as of June 1, 2024, and the requirements here apply to all students entering in Fall 2024 and beyond. It contains information pertinent to Developmental Graduate students at all levels. This handbook is not all-inclusive, but rather provides the specific guidelines for the Developmental Area above and beyond the requirements and/or procedures found in the *Departmental Graduate Student Handbook* and specified by the Graduate School (<https://gradschool.utah.edu/>).

Rules, regulations, requirements and policies may change during a student's enrollment in the graduate program. Any changes that occur will be relayed to students in writing, with emphasis as to whether the changes apply to particular years of entry into the program. Students should consult advisors and the Developmental Area Coordinator for problems that may be encountered or questions that arise in reading this handbook.

A.2 GOAL OF THE PROGRAM

The goal of the Developmental psychology program is to train students with a broad background in Developmental psychology and in the conduct and design of research. This program may be tailored to suit the career goals of individual students.

The Developmental psychology program offers a rigorous, stimulating, research-oriented program of graduate training. It is primarily designed for students seeking careers in psychological research, teaching, or clinical practice, but our graduates have also pursued a range of other careers, such as community service, public policy, health industry, and non-profit work. Most students enter the program with a Bachelor's degree, but students with a Master's degree are also welcome. All students are expected to pursue a Ph.D. Although students may elect to receive a Master's in psychology during the course of their study (usually after two years). We do not admit students who are seeking only the Master's degree.

A.3 PROGRAM STRUCTURE

Timetable

The Developmental program is usually a five- to six-year program, depending largely upon the pace of the student's thesis and dissertation research. While there is considerable variability in students' timetables because of specific needs and interests, the combined Departmental and Graduate School timetables should be consulted. The Department of Psychology expects most students to complete doctoral work within six years (see *Departmental Graduate Student Handbook*).

Advisor

The advisor is one of the most important resources in students' graduate careers, serving as a professional role model, a guide to graduate study, and a supervisor of a student's professional development. The Utah program operates on a modified tutorial model, which means that each student is admitted to the program under the supervision of a particular Developmental faculty

member. Students are expected to meet regularly and frequently with their advisor to discuss their research, coursework, and professional development. The advisor should be the first person contacted to answer program questions, deal with professional problems, etc.

The Developmental Program is responsive to changing patterns of interest among students and advisors. A student's interest may change dramatically so that a different advisor would best suit their research interests. Infrequently, changes in advisor may occur as interpersonal difficulties arise between advisor and student. The Developmental Area Coordinator should be notified if changes in advisor are being considered in order to assist in decision-making. Switching advisors requires the consent of the new advisor and the approval of the Developmental Area Coordinator.

Co-Advisors & Collaborations

Students in the Developmental area are encouraged, when appropriate, to pursue co-advisors and collaborations that would help support an individual's interests and goals. Many student's interests go beyond the interests of a single advisor and may even cross disciplines. Students are encouraged to consider combining the expertise gained from one's advisor with the expertise of other faculty at the university, including faculty outside of Psychology. Just as the faculty interests intersect with many other areas, including Health, Anthropology, Gender Studies, and Quantitative Analysis, students are encouraged to consider pursuing interests that coalesce with Developmental Psychology. This could involve having a formal co-advisor, and/or students could seek collaborations to further their expertise with individuals outside of their advisor or lab. Some relevant departments include FCS, Sociology, Social Work, Transform, Health, and centers or consortiums like C-FAHR.

Students are typically integrated into cohesive research groups composed of faculty members, postdoctoral fellows, graduate students at various levels, and undergraduate students. These research groups allow students to become involved in multiple lines of faculty research, at different levels. Students are encouraged to participate in several different research groups over time in order to broaden their theoretical and methodological training.

Financial Support

The Developmental Program is committed to the financial support of all students in good standing. One common form of support is through Teaching Assistantships, which require that students assist an instructor in teaching courses, or Graduate Instructorships, which require that more advanced students teach a course. Other common forms of support include research assistantships and fellowships (see the *Departmental Graduate Student Handbook*). Students are asked each Spring to indicate their need for support and are notified in late spring of their funding. It is the goal of the Developmental Program, and is most typical, for all students in good standing to receive some form of funding for at least five years. After five years, funding may be offered depending upon availability but there is no guarantee. Full details about funding and the Graduate Tuition Waiver are available in the *Department Graduate Student Handbook* and the Graduate School's website (<https://gradschool.utah.edu/funding/tbp/>).

A.4 DEPARTMENTAL AND UNIVERSITY POLICIES

The Department and University have multiple policies that students need to familiarize themselves with. Many of these policies are revised periodically. These include, but are not limited to:

- Student Rights and Responsibilities: <http://www.regulations.utah.edu/academics/6-400.html>
- Academic Conduct/Misconduct: <https://www.regulations.utah.edu/academics/6-410.php>
- Use of Social Media: <https://brand.utah.edu/communications/social-media-guidelines>
- Use of AI in research: <https://attheu.utah.edu/facultystaff/vpr-statement-on-the-use-of-ai-in-research/>
- University Information Technologies Security Policy: <https://regulations.utah.edu/it/4-004.php>
- FERPA and Student Privacy: <https://registrar.utah.edu/handbook/ferpa.php>
- Title IX – Sexual Misconduct: <https://oeo.utah.edu/how-can-we-help/sexual-misconduct.php>

B. REQUIREMENTS

B.1 COURSE REQUIREMENTS

Students are required to complete a collection of courses to ensure that they receive training in, and demonstrate graduate-level mastery of, discipline-specific knowledge (DSK) in line with the APA Standards of Accreditation. The DSK curriculum is designed to provide breadth across the discipline of psychology so that each graduate is assured of being familiar with the central components of scientific psychology. The four DSK categories include: 1) Basic Content Areas in Scientific Psychology (Affective, Biological, Cognitive, Developmental, and Social aspects of behavior); 2) Advanced Integrative Knowledge in Scientific Psychology; 3) Research Methods, Statistical Analysis, and Psychometrics; and 4) History & Systems of Psychology. Students are allowed to meet multiple DSK requirements with a single course.

Basic Content Areas in Scientific Psychology and Advanced Integrative Knowledge in Scientific Psychology

The Developmental area requires the following courses:

- PSY 6220 Cognitive Development
- PSY 6260 Social Development across the Lifespan
- PSY 6465 Biosocial Mechanisms of Health, Development and Stress

Students must complete at least two of these three courses prior to their Master's. The third course must be completed prior to receiving a Ph.D. These three courses together fulfill the departmental Basic Content Areas in Scientific Psychology requirement as well as the Advanced Integrative Knowledge in Scientific Psychology requirement.

Research Methods, Statistical Analysis, and Psychometrics

For either a Master's or a Ph.D., students must take PSY 6500 (Quantitative Methods I) and PSY 6510 (Quantitative Methods II) (a year-long sequence), with a minimum of "B" in each. These courses must be completed by the end of the second year, but are strongly recommended for the first year.

For the Ph.D., students must complete at least one of the following additional quantitative courses:

- PSY 6556 Analysis of Temporal Data
- PSY 6550 Structural Equation Modeling
- PSY 6558 Multilevel Modeling

History & Systems of Psychology

PSY 7508 (History and Systems) is not required by the Developmental Area but is recommended, particularly for students who have not previously had a similar course. Students should discuss enrolling in History and Systems with their advisors.

Additional Course Requirements

For either a Master's or Ph.D., students are required to enroll in PSY 6000 (First-year Practicum) the first semester of graduate study. This course provides professional development information that is central for success in graduate school.

For either a Master's or Ph.D., students are required to enroll in PSY 6100 (Teaching Practicum) the second semester of graduate work. This course prepares students for teaching undergraduate courses by providing basic instructional skills.

For either a Master's or Ph.D., students are required to regularly attend meetings of PSY 6290 (Developmental & CCF Brown Bag). At these Brown Bag meetings, students, faculty, and invited guests present their current research and ideas, with an emphasis on research proposals at all levels. In addition, the meetings include discussions of topics of shared interest in the service of developing new research ideas and collaborations as well as professional development topics. Faculty outside Developmental and CCF, including guest speakers from other departments or campuses, also give presentations on occasion. Students should enroll in PSY 6290 when possible (so as to not exceed the University's 12-credit hour limit per semester).

The Master's Degree requires at least 6 hours of PSY 6970 (Thesis Research, Master's). The Ph.D. requires at least 14 hours of PSY 7970 (Thesis Research, Ph.D).

The Ph.D. requires additional coursework (approximately four courses) as specified by one's Career Development Plan. This can include additional seminars offered by Developmental Area faculty, additional courses from other areas of Psychology that fulfill the Basic Content and Advanced Integrative Knowledge requirements, and other graduate coursework relevant to an individual student's program of study. The Career Development Plan specifies the requirements for approval of additional Ph.D. coursework.

Additional Course Information

Courses may be taken outside the Psychology Department so long as they are graduate level. Graduate courses are frequently numbered at both the 5000 and 6000 level. Graduate students should enroll for courses numbered at the 6000 level when possible. The maximum credit load per semester is twelve credits, and the minimum is nine credits.

First year students typically enroll in:

- (a) Psychology 6500 and 6510 (the year-long Quantitative Series)
- (b) a Basic Content/Advanced Integrative Knowledge Course within the Developmental Area
- (c) Psychology 6290 both semesters (Developmental Brownbag)
- (d) a Developmental seminar of interest if possible, and
- (e) PSY 6970 if applicable and/or directed readings with their primary advisor.

For the Master's, the student must have completed a minimum of 30 to 36 credit hours of graduate courses (5000 level and beyond), 24 of which must be in residence. At least 24 to 30 hours must be in coursework. Students enroll in Master's thesis hours (Psych 6970) for variable amounts

of hours until the completion of the Master's thesis; A "T" is awarded each quarter, denoting work in progress until the thesis is defended. Students are required to maintain a B average or better. For a Ph. D., students must complete a minimum of 54 credit hours. This includes the credits that went towards completing the Master's. Doctoral students enroll for variable amounts of dissertation hours (Psych 7970) until the dissertation is completed. Students should add Master's thesis and dissertation research credits to increase their load if they are taking less than nine credits.

To audit a class (attend the class for no grade or credit), students must register for the class and then go to the Student Services Building and fill out a Drop/Add form. Students drop the course registered for and add it back as an audit. It is courteous to obtain the instructor's permission to audit a course.

B2. CAREER DEVELOPMENT PLAN

Objective

The Career Development Plan (CDP) offers students a mechanism for allowing their interests, skills, values, and career goals to shape their doctoral studies. In addition to helping students with self-assessment and planning, the CDP increases the flexibility of training profiles and facilitates communication about professional goals with one's advisor(s) and the other faculty members of the Developmental Area.

Process & Requirements

Students develop an Individualized Training Plan during their first semester of the graduate program as part of PSY 6000. The goal is to outline a graduate training plan that includes both coursework and applied training experiences that will be accomplished both within the first year and across a two to three year period. The CDP is an extension of this process.

At the end of the second year for those entering without a Master's, or the first year for those entering with a Master's, the CDP assesses career goals and activities that support those career goals. This plan should be developed with the advisee and an advising committee; a meeting may facilitate this process. The advising committee must be a minimum of 3 tenure-track faculty in Psychology (including one's advisor), with at least 2 of the faculty in the Developmental Area. Additional faculty, including career-line or adjunct faculty and faculty from other departments, can be added to this minimum; because this committee serves a unique function, the composition of the committee may differ from one's Master's committee.

An CDP begins with an in-depth self-examination. This can include discussions with multiple faculty including career-line and adjunct faculty, meeting individuals outside of the university, talking with the CSBS career counselor, and online tools like:

- <https://www.imaginephd.com/>
- <https://www.apa.org/education-career/guide/individual-development-plan>

Students should discuss with their advising committee what meetings and tools they are using to explore their interests, skills, values, and career goals. Although answers to these questions are not

required to be provided to faculty, an important part of this process will be to consider questions like:

1. Right now, what THREE activities do you enjoy the MOST, and what three activities do you enjoy the LEAST (*reading the literature, analyzing data; designing studies; developing testable hypotheses, writing literature reviews; writing Results/Discussion sections; writing lectures, writing grant applications; meeting with students; developing course assignments; initiating new collaborations; leading discussions; giving public talks; managing complex data collection efforts*).
2. How important is it for you to have control over where you live?
3. How important is it for you to live near your spouse/partner, children, parents, or other specific individuals?
4. How do you handle unpredictability and uncertainty?
5. Are there health issues (for yourself or your family members) that need to be considered?
6. How important is financial stability and security?

Upon completing self-reflection activities, a document (*Appendix E, Career Development Plan Form*) must be produced, signed by the student and all committee members, and submitted to the area coordinator and primary advisor. The CDP should be reviewed and revised (if necessary) each year; revisions to planned coursework or other substantial elements should be approved by the Developmental Area at the mid-year or end-of-year area meetings.

B.3 MASTER'S DEGREE & THESIS

Completion of the Master's Degree requires completion of a Master's project and thesis, in addition to the requirements specified in *Course Requirements, Career Development Plan, and Additional Requirements*.

Objective

The purpose of the Master's project is to involve students in all phases of the design, execution, analysis, interpretation, and communication of research. The Developmental faculty believes that these educational objectives can best be met by developing a research question that is part of the advisor's ongoing research program. Master's level students are research apprentices. It is neither necessary nor usually desirable for beginning students to design and carry out projects that are completely independent of the advisor's research. It is necessary that students understand the theory and methods they use and understand how research decisions are made, even if they are made primarily by the faculty advisor. It is desirable that the Master's project be designed to be at least a part of a publishable piece of work.

An equally important goal of the Master's project is to impress upon students the importance of transparency and open science. In response to the replicability crisis in psychology, as well as calls for improved transparency, rigor, and reproducibility in psychological research, all Master's theses based on primary data are required to be preregistered. For theses based on secondary data, decisions regarding preregistration should be made in consultation with one's graduate advisor and committee. We believe it is critically important that our students be socialized to adhere to best research practices in open science. To this end, if required, students will submit a pre-registration to the Open Science Framework upon the successful defense of their Master's proposal.

Process & Requirements

The Master's thesis consisting of an APA-formatted manuscript similar to a journal publication is to be completed by the end of the spring semester of the student's 3rd year in the program. To this end, students are expected to adhere to the following timeline. Failure to adhere to this timeline may result in a student being declared in bad standing (see the *Department Student Graduate Handbook* for details). For students who enter with a Master's degree from another program or institution, please see the *Departmental Graduate Student Handbook* for information on the procedure for evaluating Master's theses completed elsewhere.

1. At the beginning of spring semester of the 1st year, **select a committee**. Your committee is an essential part of your education, and you should make use of your committee. Plan on meetings with each of your committee members before your proposal and before your defense.
2. Prepare a pre-registration describing research questions, hypotheses, and methods to the committee. A pre-registration template can be found in the appendix. Other examples are on the Open Science Framework website (osf.io). Your advisor may also provide you with a template to be submitted to your committee.
3. By February of the 2nd year, discuss the pre-registration and full project at a **Master's proposal colloquium**. The purpose of the colloquium is to allow the committee members to review the pre-registration document and assist in improving the project. The pre-registration document should be submitted to the committee no later than 2 weeks prior to the scheduled meeting. A two-page abstract must be submitted to the departmental administration for circulation to the department five working days in advance of the proposal meeting. Students typically prepare their presentations with A/V aids (e.g., PowerPoint).
4. Students are required to have experience submitting a pre-registration at least once in their graduate career. If required by the committee or desired by the student and advisor, shortly after the Master's proposal colloquium, submit the pre-registration to the Open Science Framework.
5. By the end of the spring semester of the 3rd year, hold a **defense meeting**. The student will make a formal presentation and will answer questions from the committee. The student is expected to be familiar with and able to describe all aspects of the completed project. The complete Master's thesis, consisting of an APA-formatted manuscript similar to a journal publication, should be submitted to the committee no later than two weeks prior to the scheduled meeting.
6. Revisions are made following defense. Students work with thesis editor to file thesis with the graduate school.

B.4 PH.D. PRELIM PROJECT

Objective

A qualifying examination (written, oral, or projects) is required of each doctoral candidate. The Developmental area does not utilize an exam for the qualifying examination, but rather a project that is professionally relevant. The philosophy behind prelim projects is that they should promote the professional development of the student and demonstrate the potential for doctoral-level scholarship in Developmental Psychology. Performance on the prelim project will be used along with other indicators of performance to make decisions about a student's advancement to candidacy.

Selecting a Prelim Project

The flexibility of prelim projects means that students should carefully plan their projects with their advisor and Developmental area faculty members to create a maximally efficient and useful project relevant to career goals identified in one's CDP. It is recommended that students begin tentative planning of projects before the Master's degree is completed. Consultation with other area faculty members before a proposal is formally submitted is strongly recommended. Prelims consist of one of the following:

- A. Integrative Literature Review (most common option). A literature review gives students experience in writing a research review for scholarly publication. It also familiarizes students with a specific body of literature chosen by the student in collaboration with the advisor and the Developmental faculty in preparation for the dissertation project. To complete this project, you will be expected to: (1) identify an important issue to be examined in a particular area of Developmental Psychology; (2) identify a broad base of literatures that can inform this issue; (3) integrate and evaluate different perspectives on the issue; and (4) write a cohesive, conceptual synthesis. In addition to the knowledge and skills gained by doing this Preliminary Examination Project, we expect you to be able to submit the final product for publication, although the success of such a submission does not form the basis of final grade assignment. The student should talk with their advisor(s) and other relevant faculty regarding the focus of the integrative paper to develop some initial directions. The paper is expected to be written in a manner that is suitable for submission to *Psychological Bulletin*, *Developmental Review*, *Human Development*, or other major review outlets. The paper should follow APA style and should be between 30 and 40 pages of narrative (excluding references), and a PRISMA diagram should be included.
- B. Grant proposal and submission. This project allows the student to gain experience in writing and submitting grant proposals for federal or foundation funding. This option can be useful for students considering a career involving research. Students pursuing this option should discuss in advance with their advisor and committee what specific requirements will be (e.g., one grant or multiple? resubmission required?), and how they will be evaluated independently of the success of the grant.
- C. Internship/Practicum. Students may propose to gain experience in other or non-academic contexts applicable to their interests. Students may participate in, or become familiar with, the contexts of special populations, specific age groups, or socio-cultural groups for approximately one semester. Participation in public policy and advocacy of Developmental (normal or special population) issues may be included. Students pursuing this option should note that a substantive demonstration of professional writing is still required for this option to

demonstrate individual expertise (e.g., a manuscript submission to *Social Policy Report Brief*); discuss in advance with your advisor and committee what this will be, the specific requirements, and how it will be evaluated.

Process

1. **Select a Prelim Grading Committee.** With the advisor, the student will determine a prelim grading committee who will approve the proposed project and the final prelim project. The committee must be composed of three faculty members, one of whom can be non-Developmental faculty. The prelim grading committee for the research project is expected to overlap at least partially with the Master's or dissertation committee, although there may be circumstances where this is not the case. It is expected that the advisor will always be part of this committee.
2. **Write and Submit a Proposal for the Prelim.** The student should submit a brief (no more than 2 single spaced pages) written proposal for each project to the *prelim committee* for approval (through their advisor). This proposal should describe: (a) the general topic or research questions; (b) why this is an important topic in Developmental Psychology; (c) the broad base of literatures that will be drawn on and integrated in the final document; and (d) and specifics of the scope of work, requirements, and plans for evaluation in the case of a grant proposal or internship/practicum prelim. During the academic year, students will be provided with feedback on their proposal within three weeks of submission. The primary purpose of the proposal is to ensure that the prelim is meeting the overall objectives of the prelim project (particularly with respect to the *breadth* and *integrative nature* of the work) and to provide the student with some assurance that they are on the right track to proceed. If there are concerns, the student will be given specific feedback and will be allowed to revise and resubmit until they have an approved proposal.
3. **Writing Process.** While consultation is expected prior to the proposal, after the proposal is approved, students are expected to work on the project independently without the help of the advisor. In other words, the project must be the student's own, original work. The student is solely responsible for reviewing the literature, and writing the paper, grant, or other components to be evaluated. If the student has questions at different stages of the project, they should contact the Area Coordinator, who will determine whether it is appropriate to obtain help from faculty or students. The prelim paper/grant/other project should be turned in to the advisor for distribution to the grading committee within three months of project approval; an alternative timeline (e.g., due to starting dates) can be agreed upon by the prelim committee for a practicum/internship.
4. **Feedback.** During the regular Fall and Spring semesters the committee will provide the student with written feedback and a final grade no more than one month after the submitted project. Efforts will be made to follow these timeline guidelines during the summer, but grading may take longer during this term as faculty are on nine-month appointments. See *Grading Procedures* below.

The advisor will write a cover letter synthesizing the feedback from the committee and will provide the student with the specific written feedback of each committee member. The

student and advisor should meet to discuss any issues that require further clarification. The advisor will give a copy of all feedback to the other committee members.

- 5. Rewrites.** If a student is asked to rewrite the prelim, they will have one month to do so following receipt of written feedback. The student should hand in the revised prelim to the advisor, who will distribute it to the grading committee. The grading committee will grade the revised project no more than two weeks after it has been turned in and distributed using the same criteria outlined above. The chair will then provide the student with written feedback and a final grade. Only one set of rewrites is allowed.

Grading Procedures

Graders will evaluate the project on a number of dimensions (see below) and will provide an overall score. Each project will be graded by the prelim committee using a 4-point scale:

- 0 = Fail (Inarticulate, vague, below that expected of modal students)
- 1 = Rewrite (Underdeveloped, areas of significant weakness)
- 2 = Pass (Clear, complex, concise)
- 3 = High Pass (Exceptional, better than expected of modal students)

The project will receive a passing grade when the overall scores of two or more graders are “pass/high pass.” When the scores of two or more graders are “rewrite,” the project will be revised and resubmitted within one month of receiving feedback. When the scores of two or more graders are “fail,” the student will have failed and should follow instructions for remediation under *Failing Grade* (below). In the unusual case that the grading committee cannot reach a majority opinion (e.g., pass vs. rewrite vs. fail), the scores will be sent to the Developmental Faculty for their professional judgment and the assignment of a grade. Once a final grade has been determined, the prelim grading committee will provide to both the student and the area written documentation of the student’s score, along with an explanation of what additional steps, if any, may be needed to pass.

The paper will be evaluated on the following dimensions, all of which will contribute to the final grade using a four-point scale.

1. *Significance* – Does the student demonstrate the importance of the issue? Will this advance our understanding of an important area in Developmental psychology?
2. *Breadth, depth, and accuracy of knowledge* – Does the student demonstrate that they have a solid grasp of the relevant literatures? Are the major relevant topics covered or are there gaps? Is the information provided accurate? Does the student demonstrate an ability to carefully evaluate the extant literatures?
3. *Integration/Cohesiveness* – Did the student demonstrate an ability to integrate various perspectives into a unified perspective? Is the overall conceptualization cohesive and clear?
4. *Writing style* – Is the organization of the paper reasonable? Is the writing style clear?

Failing Grade

If the student fails outright (without a rewrite option) or fails after a rewrite has been completed, the student may be dismissed from the program. In extraordinary cases, the exam may be repeated once at the discretion of the Supervisory Committee. If supported by a majority of the Supervisory Committee, the student will be allowed a second chance to successfully complete the

prelim. In such a case, the student needs to develop a plan to remediate the problems noted (in collaboration with their advisor; typically this will involve proposing and writing an alternative project on a new topic). The Developmental area faculty are required to formally approve the plan. Once the remedial plan is approved by the area faculty, the student must complete the plan and turn in the written product within three months. If the student fails a second time, the student will be dismissed from the program.

B.5 PH.D. & DISSERTATION

Completion of the Ph.D. requires completion of a dissertation, in addition to all other requirements specified in *B. Requirements* of this document.

Objective

Every candidate for the Doctoral degree must submit a research thesis that demonstrates originality and ability in independent investigation and that constitutes a meaningful contribution to psychological knowledge.

Requirements

The Developmental area has adopted a “multiple manuscript” dissertation requirement. A dissertation will include the equivalent of at least 2 publication-ready manuscripts, along with integrative introduction and conclusion/future directions statements. It should be noted that the second paper can be replaced with another substantial product, such as policy briefs; any student pursuing this option should discuss the product and its scope with their advisor and committee members in advance of the proposal colloquium.

A typical format will include:

1. An overarching, integrated review of the existing literature, the research questions that are being investigated, and a statement as to the contributions made by the dissertation research.
2. Introduction, methods, analyses, results, and discussion for each of the proposed studies in publication-ready format.
3. A cohesive discussion integrating manuscript results and future directions.
4. In response to the replicability crisis in psychology, as well as calls for improved transparency, rigor, and reproducibility in psychological research, the Developmental faculty decided to require all dissertation theses based on primary data to be preregistered. For theses based on secondary data, decisions regarding preregistration should be made in consultation with one’s graduate advisor and committee. If required, students will submit a pre-registration to the Open Science Framework upon the successful defense of their dissertation proposal.¹ Note that students are required to have experience submitting a pre-registration at least once in their graduate career.

¹ Students completing a scholarly work not requiring empirical data are still expected to be familiar with the steps required for preregistration. In such cases, a pre-registration document for a project unrelated to the dissertation can be submitted with the dissertation; in such cases pre-registration is not required to be submitted to the Open Science Framework.

Dissertation manuscripts will consist of:

1. At least one empirical analysis. One non-empirical article can be included with committee approval.
2. Manuscripts should be conceptually related (e.g., in content, theoretical orientation, etc.).
3. Manuscripts that have not been used to fulfill other requirements (e.g., Master's Thesis), unless extensively reworked and extended with committee approval, with the exception of use of all or part of the prelim.
4. Students should be first author on each of the manuscripts. As research is a collaborative process, the current APA Style manual provides guidelines for manuscript authorship.
5. Manuscripts can be published or unpublished.
6. Manuscripts must be written while enrolled in the graduate program.

Process

1. **Select a five-person committee.** The dissertation committee consists of advisor and (at least) four additional faculty members. At least one member must be from another department on campus or another university. The dissertation committee often consists of the original Master's committee and two additional members, but not always. The student is required to individually contact the faculty members to describe research interests and plans.
2. **Proposal Development.** Topic and project are chosen, with advisor and consultation with committee members, proposal drafts are written and revised, pilot data are collected, as necessary. The committee is an essential part of the dissertation, and you should make use of your committee. Plan on meeting with each of your committee members before your proposal is in final form and before your defense.
3. **Proposal Draft Submitted to Committee.** Final proposal draft should go to the committee members at least 2 weeks prior to scheduled dissertation colloquium. The proposal should include an overarching, integrated review of the existing literature, the research questions that are being investigated, a statement as to the potential contributions of the dissertation research, and for each of the proposed papers: introduction, methods, and proposed analyses. Should students wish to have feedback prior to the meeting, students should allow two weeks to receive comments. A two-page abstract announcement of the dissertation proposal is distributed to department faculty 5 working days prior to date of colloquium. This announcement is given to the departmental administrative assistant.
4. **Complete Ph.D. Program of Study Form.** File on-line form with departmental administrative assistant.
5. **Dissertation Colloquium.** Student prepares a 20-minute presentation that involves open discussion and questions-answers integrated into formal presentation. The colloquium typically lasts 1.5-2 hours. Students typically prepare their presentation with A/V aids (e.g. PowerPoint).

6. **Memo to Committee.** If changes are made in the proposal during the colloquium, the student will prepare a memo stating their understanding of those changes. The memo will be signed by each committee member to indicate their approval.
7. **Research and Dissertation.** The student conducts the research in consultation with the advisor and the committee, writes the results in a journal article format and distributes a draft to the committee, two weeks prior to the scheduled defense. As per the *Departmental Graduate Student Handbook*, an article format is preferred for the dissertation.
8. **Defense.** A formal presentation of the major research questions, results, and interpretations is provided by the student (20-minute presentation). Committee members ask questions regarding research and interpretation. Meeting typically lasts 1.5-2 hours.
9. **Revisions for Depositing Dissertation.** Revisions are made following defense. Students work with thesis editor filing dissertation with the graduate school.

B.6 ADDITIONAL REQUIREMENTS

The following items are requirements of all Developmental students, and will be considered as part of annual evaluations:

- Students are expected to work towards publications throughout graduate school, including during the summer.
- Students are required to have experience submitting a pre-registered report at least once in their graduate career (often with the Master's Thesis or Dissertation).
- Students and Advisors are required to complete an Advisor-Advisee Collaboration Agreement (*Appendix F*) in their first semester and update it at least every 2 years.
- Students are expected to attend to the annual goals outlined in end-of-year letters.
- Students are expected to present in Brown Bag at least once every 2 years.
- Students are expected to engage in the process of self-governance (serving as student representatives, serving on committees, doing service) at least once during grad school.
- Students are expected to demonstrate additional, significant professional development activities (e.g., grant applications, conference presentations, undergraduate mentoring, collaborative work with other graduate students or faculty, teaching a course, journal reviewing, etc.), particularly following the first year and as detailed in their Career Development Plan.

C. HELPFUL HINTS

C.1 THESIS AND DISSERTATION

1. **Advisor.** Have regular meetings with your advisor to produce a plan for your Master's thesis, your prelim project, and your dissertation. Meet with and solicit your committee members' opinions about the plan.

2. **Master's Proposal & Dissertation Colloquium.** The colloquium is aimed to produce an agreement between the student and committee about a plan for the thesis projects. In the end, the committee will formally approve the student's plan. There are many steps in the design and proposal of a thesis and dissertation. All the steps are an important part of graduate training, and full advantage should be taken of the opportunities the process affords for developing relationships with faculty and expanding research expertise.

3. **Research is part method and part communication.** Learning and applying theory and research methods are central training goals of graduate education. Another is the ability to communicate ideas about theory and methods to colleagues. In the colloquium preparation process students have many opportunities to improve their ability to communicate about research, both in writing and orally, in individual meetings and group meetings.

4. **Revision, revision, revision.** Revision is integral to scientific communication. Research is complicated and it is necessary to keep track of the many threads of ideas and approaches. One of the training goals is for students to develop the ability to handle critiques, both emotionally and intellectually. Remember that faculty critiques are designed to help you improve your work. Use them constructively to improve your work product.

5. **Intellectual differences and intellectual debates.** Often there is no single right answer. Students must anticipate major differences in intellectual world views among faculty members. In this sense, the faculty advisory committee is a smaller version of the larger community of Developmental Psychologists with whom students will be communicating in the future in the form of papers, posters and journal articles. At the doctoral level, the colloquium process is similar to the professional review process because it forces students to communicate with colleagues having different views. Students must present and defend ideas in a form that others can readily understand. This is a difficult skill to acquire, and it usually comes by observing and participating in the kind of debates that go on during colloquium meetings. Students are encouraged to attend other students' colloquia before presenting their own. Students are also encouraged to participate actively in debates in classes and brown bag meetings in order to develop presentation skills.

6. **Whose work is it?** Typically, graduate students develop lines of research that originate with their major advisor's interest, relying on the advisor's theory, methods and data. Faculty recognize that students are apprentices and are not expected to invent a whole new research program or theoretical position on their own. At a minimum, the student is expected to understand and explain the methods and theory that they plan to use, and should be able to field questions about how research decisions were made, even if those decisions were made under the direction of the faculty advisor.

7. **Use of existing data.** Many faculty have collected extensive sets of data that offer fertile grounds

for many research projects. The use of existing versus new data will depend on the research question students pose for projects. Throughout their training, all students must have meaningful involvement in study design, data collection and management, and IRB processes --- whether they work with existing data or collect their own data. Use of existing data is always contingent upon the permission of the original data collectors, the advisor, and the student's supervisory committee, and may require IRB approval.

C.2 BEYOND FORMAL REQUIREMENTS

Formal requirements (see *B. Requirements*) are only one part of acquiring the skills and knowledge you will need for success within and beyond this program. In addition, you should consider some of the less formal expectations for your progress and productivity, and additional activities that can foster your professional development.

Every student, lab, advisor, and research area has different details. Below are some good target aims in terms of your research productivity. If you manage to achieve these goals, you are likely to be on track to develop a strong record of published research by the end of your graduate training.

- Early in the first year, submit a presentation to a major conference relevant to the student's research interests (e.g., SRCD, SRA, Jean Piaget Society, APA, APS).
- By June after the first year, be involved in one multi-authored publication (not as first author), and be on time with respect to Master's thesis progress.
- Once the Master's is completed, a student should be working on one *different* first-author publication per year (as well as co-authoring other papers).

Other aspects of professional development are more variable from person to person and career goal to career goal. Below is a partial list of other experiences that help students develop professionally; some of these experiences may be acquired naturally in the course of doing a Master's thesis and dissertation; others may have to be more actively sought out. You should actively seek out these or other experiences and consult with your advisor, committee, and other faculty and students about areas where you could use additional training or experience. In the process, you will be taking personal initiative in your own professional development, a 'meta-skill' of critical importance in most Ph.D.-level careers.

- Visit at least one other Developmental lab during your first year; you can even become a habitual guest in another lab if it helps foster your productivity
- Develop and teach a Developmental psychology course (child development, adult development, infancy, adolescence and emergent adulthood)
- Teach an important course for the psychology major (introductory psychology, research methods, statistics)
- Think about your teaching and mentoring philosophy
- Mentor an undergraduate researcher (with supervision)
- Review for journals
- Engage in the process of self-governance (serving on committees, doing service)
- Manage a project
- Write a grant proposal
- Create a curriculum vitae

- Give a conference presentation
- During your 1st year, interview faculty members beyond your advisor
- Begin a secondary project with another faculty member

D. EVALUATION PROCEDURES

D.1 GENERAL PROCEDURES

A student's progress and development is evaluated through a variety of formal processes in addition to informal monitoring by the advisor. The Developmental Faculty conduct semi-annual reviews of all Developmental students at the end of Fall Semester and at the end of Spring Semester. At the end of Spring Semester of each year, the Psychology Department also conducts a review of the progress of all students. At this time the full faculty vote (1) to commend a few students in the areas of research, teaching, and service, (2) to award a Professional Development Award to the student making the most significant contribution to research, teaching, and service that year, (3) to recommend deadlines for students making slow progress through the program, and (4) to agree upon remedial measures or probation or dismissal in rare cases.

Prior to each review, students must complete a progress form (see Appendix D). Then students meet with their advisors and review their accomplishments (and any problems) of the past time interval. In addition, goals for the coming interval are developed, including proposals for addressing problems that have arisen.

Advisors present this information and their recommendations to the Developmental Faculty at the semi-annual Developmental Faculty Student Review. Students have the opportunity to personally present their views to the area regarding their progress and their plans for addressing difficulties. A student may also choose to be accompanied by a Developmental Student Representative.

These procedures are designed to prevent problems or address problems as soon as they arise and forestall unpleasant surprises. The process is designed to assist in goal setting and goal achievement. In addition, the procedures ensure that students are notified of their relative progress through the program and those aspects of their academic performance which may require remediation or may place their status in jeopardy. Students have the opportunity to present their own views on the issues that may be involved and the faculty have an opportunity to acquire sufficient data upon which to base a careful and deliberate decision according to their best professional judgment.

The Developmental Area Coordinator presents the progress of Developmental students in an annual student review, and non-Developmental faculty have the opportunity to give feedback based on their interactions with the particular student. A formal statement of evaluation and recommendations of the student is then sent to the student by the advisor, with the approval of the Developmental Area Coordinator, the Director of Graduate Studies, and the Departmental Chairperson.

D.2 EVALUATION CRITERIA AND APPEALS

The academic criteria for student evaluations are discussed in the *Departmental Graduate Student Handbook* and the Graduate School Policies, Rules, and Guidelines (<https://gradschool.utah.edu/navigating-grad-school/graduate-policies/>). Students are evaluated in the areas of course work, teaching, research, progress toward the Master's and/or Ph.D. degrees, service, and professional behavior. Every attempt is made to help students as they work toward their degrees.

If a student wishes to appeal the recommendations and/or decisions of the Developmental Area, several levels of appeal are possible within the department and at other administrative levels and should be pursued in order.

1. The first level of appeal is the Developmental area itself. If the student believes that additional information exists that should have been brought to the attention of the Developmental area, they should immediately bring that information to their attention. It is most helpful if the student writes a petition to the Developmental Area (addressed to the Developmental Area Coordinator), outlining the additional information, or the reasons why they believe that the recommendation/decision should be reconsidered.
2. The second level of appeal is to the Director of Graduate studies and the Chair of the department, who, at their discretion, may ask that the appeal be heard by the departmental Graduate Student Committee.
3. The next level of appeal is to the Dean of the College of Social and Behavioral Sciences and then the Dean of the Graduate School. These procedures are described in the Graduate School Policies, Rules, and Guidelines (<https://gradschool.utah.edu/navigating-grad-school/graduate-policies/>).

D.3 PETITION PROCESS

In some circumstances, students might want to petition the Developmental Faculty for an exception to the usual procedures or requirements (i.e., changing the nature or scope of the preliminary project, requesting a leave of absence, etc.). In such cases, the student should first consult with their adviser and the other members of their committee in order to solicit feedback on whether such a petition is appropriate and justifiable. Although a student can make such a petition without the support of their adviser and committee, such petitions are less likely to be approved. To officially submit a petition, the student must draft a formal letter requesting the exception, describing the requested alternative procedures, and justifying the request. The student must state in the letter whether the petition has the support of their adviser and committee members. This letter will be distributed to the entire Developmental Faculty, who will vote on the request within two weeks of its submission. The student may also request a face-to-face meeting with the faculty (in addition to submitting the letter) if they so desire. Faculty members who do not vote within the 2-week time frame will be considered to have voted in favor of the petition. Petitions should be submitted during the regular academic year. If students wish to submit a petition during the summer, they must first confirm that all Area faculty members will be willing and available to review the petition.

D.4 GRIEVANCES

All Developmental graduate students can expect to have problems related to their graduate education resolved in a fair and expeditious manner. It is the policy of the University to solve grievances internally and at the level that is most closely related to the origin of the problem. A graduate student who has a complaint with any member of the faculty, including the faculty advisor, should first discuss the problem with the person involved. If the graduate student is not satisfied at this level, or if discussion of the problem seems inappropriate because of the nature of the student's complaint (which is rare), then the student should seek advice from the Developmental Area Coordinator or the PIE Committee, or, if necessary, from the chair of the Graduate Committee.

If the problem is not satisfactorily resolved at the level of the Developmental area or by the Graduate Committee, then the graduate student should take the complaint to the chairperson of the psychology department. Depending upon the nature of the problem, the department chairperson may deal with the situation directly or refer the matter to the appropriate committee or authority.

If the grievance has not been resolved at the level of the department chairperson, the matter may then be taken to the dean of the College of Social and Behavioral Sciences, then, finally, to the Dean of the Graduate School as described in the Graduate School Policies, Rules, and Guidelines (<https://gradschool.utah.edu/navigating-grad-school/graduate-policies/>).

**APPENDIX A
TRAINING PLAN TEMPLATE**

AREA OF EXPERTISE	FORMAL TRAINING (COURSEWORK)		APPLIED TRAINING/ EXPERIENCE		END PRODUCT	
	What	When	What	When	What	When
Research Methods						
Statistics						
Academic writing						
Content Area 1:						
Content Area 2						
Content Area 3						

EXAMPLE OF (PARTIALLY) COMPLETED PLAN

	FORMAL TRAINING (COURSEWORK)		APPLIED TRAINING/ EXPERIENCE		ENDPRODUCT	
AREA OF EXPERTISE	What	When	What	When	What	When
Research Methods	<ol style="list-style-type: none"> 1. Research Methods 2. Class in Qualitative Methods (Ed Psych) 	<ol style="list-style-type: none"> 1. fall of 2010 2. by 2012 	<ol style="list-style-type: none"> 1. design and execute Master's project 2. participate in two projects outside advisor's laboratory 3. design and execute dissertation 	<ol style="list-style-type: none"> 1. Years 1-2 2. Year 3-4 3. Years 4-5 	<ol style="list-style-type: none"> 1. successful proposal and defense 2. Preparation of two second-authored or third-authored manuscripts 3. successful proposal and defense 	<ol style="list-style-type: none"> 1. Spring of 2nd yr, Fall of 3rd 2. by 4th year 3. Spring of 4th year, spring of 5th
Statistics	<ol style="list-style-type: none"> 1. First year sequence 2. SEM 3. HLM 	<ol style="list-style-type: none"> 1. First year 2. by 3rd year 3. by 3rd year 	<ol style="list-style-type: none"> 1. Facility with SPSS and syntax 2. Independent analysis of data requiring SEM 3. Independent analysis of data requiring HLM 	<ol style="list-style-type: none"> 1. By end of first year 2. by 4rd year 3. by 4rd year 	<ol style="list-style-type: none"> 1. Independent completion and write-up of analysis for co-authored manuscript in advisor's lab 2. Independent write-up of Master's data 3. Independent write-up of dissertation data 	<ol style="list-style-type: none"> 1. By end of first year 2. by 4rd year 3. by 4rd year
Academic writing	<ol style="list-style-type: none"> 1. Join writing group 2. Take Uchino's grant-writing class 	<ol style="list-style-type: none"> 1. All semesters 2. By 4th year 	<ol style="list-style-type: none"> 1. Theory paper for prelim project 2. Co-authorship with advisor 3. Co-authorship with faculty other than advisor 4. Preparation of MA and dissertation write-up 5. Preparation of proposals for NSF, Clayton, Eccles, UTA, 	<ol style="list-style-type: none"> 1. First year 2. Years 2-3 3. Years 2-3 4. NSF in 1st and 2nd years, Clayton, Eccles and UTA in years 3-4, NRSA in 5th 	<ol style="list-style-type: none"> 1. Submit sole-authored manuscript 2. Two second-authored book chapters 3. Submit two second-authored or third-authored manuscripts 4. Submit first-authored manuscript on Master's data, and two first-authored manuscripts based on dissertation 5. Submission of proposals for 	<ol style="list-style-type: none"> 1. by 2nd year 2. one by 3rd year, one by 5th 3. by 4rd year 4. MA manuscript by Spring of 3rd yr, dissertation manuscripts by 6th year 5. NSF in 1st and 2nd years, Clayton, Eccles and UTA in years 3-4, NRSA in 5th

APPENDIX B DEVELOPMENTAL AND ALLIED FACULTY

This appendix includes descriptions of Developmental and allied faculty.

Developmental Faculty

Cynthia A. Berg, Professor. Ph.D., 1987, Yale University.

Dr. Berg examines how the family system can facilitate or derail the management of chronic illnesses, most especially type 1 and type 2 diabetes. She takes a life-span developmental perspective (across adolescence into emerging adulthood and adults across the life-span) to examine how parents lay a foundation for how individuals utilize their social context for management of chronic illnesses, a social context that expands to friends, co-workers, and romantic partners. Her work has shown that social relationships are key across the life span to chronic illness management and health outcomes. Her research utilizes a wide variety of methodologies (surveys, daily diaries, daily open-ended interviews, physiological data such as heart rate and blood pressure data as well as blood glucose monitoring) and statistical techniques (multi-level models, dynamic systems perspectives to time dependent data) to capture collaboration across parent-child dyads during adolescence and across adulthood in long-term married couples.

Pascal R. Deboeck, Associate Professor. Ph.D., 2007, University of Notre Dame.

Dr. Deboeck's interests are focused on the development and application of methods for the analysis of intensive, intraindividual time series. In particular he focuses on the development and application of derivatives, differential equation modeling, and dynamical systems concepts to time series that have characteristics common to behavioral and some physiological measures such as relatively low sampling rates, large amounts of measurement and/or dynamic error, and unequally spaced or missing observations. With these data, questions can be asked related to the role of variability and less-stable change (the “error” in many statistical models). These methods have the potential to inform theories that address how, when and why people change over time. Dr. Deboeck has worked with a range of applied topics including: resiliency and affect in older adults, health and depression as long-term outcomes of daily stress processing, sustained attention while driving, adult attachment, the coupling of maternal depression with child behavior, modeling of proteins associated with Alzheimer's, mood change in patients with rapid cycling bipolar disorder, and the motion of dancing individuals and dyads.

LillyBelle K. Deer, Assistant Professor. Ph.D., 2021, University of California-Davis

Dr. Deer's research examines risk and resilience processes in the prenatal and postnatal periods that influence biology, behavior, and health across development. Her research focuses on big picture questions such as: 1) how early experiences influence health across the lifespan; 2) whether there are sensitive periods during which experiences have the largest influences; and 3) how multilevel factors (e.g., sociocultural environment, biology; individual skills) interact to influence development. To address these questions, her research falls into two main areas: 1) understanding prenatal and early postnatal contributions to biological systems like the HPA axis and other systems that impact health across the lifespan; and 2) examining cognitive and behavioral mediators of the impacts of stress on development. In pursuing these lines of research, she integrates methodology across multiple levels of analysis, including endocrine biomarkers (e.g., salivary and hair cortisol, and corticotropin releasing hormone in plasma), serum cytokines, electrocardiogram data, acute stress paradigms,

health measures (e.g., body composition, blood pressure), health behaviors (e.g., sleep, diet), Developmental behavioral tasks, as well as survey interview methods.

Lisa M. Diamond, Professor. Ph.D., 1999, Cornell University.

Dr. Diamond's research focuses on two distinct but related areas -- the nature and development of affectional bonds and the nature and development of same-sex sexuality. The common thread uniting these lines of research is her interest in the psychological and biobehavioral processes underlying intimate relationships and their influence on emotional experience and functioning over the life course.

Primary research questions are as follows: (1) what are the basic psychological and biobehavioral processes underlying the formation and functioning of affectional bonds; (2) how are these processes related to sexual desire and sexual orientation; (3) what are the implications of affectional bonding for mental and physical well-being at different stages of life? In addressing these questions, a diverse range of research methods, including in-depth qualitative interviews, controlled social-psychophysiological experiments, and assessment of naturalistic interpersonal behavior are used.

Bruce J. Ellis, Professor. Ph.D., 1995, University of Michigan.

As an overarching goal of his career, Dr. Ellis seeks to leverage knowledge from both evolutionary biology and Developmental science to address core issues in Developmental psychopathology, especially in relation to child and adolescent health. This work employs life history theory to model stress-health relations over the life course. A major emphasis of his research has been the development of Biological Sensitivity to Context theory and its recent extension the Adaptive Calibration Model, which focus on how our biobehavioral systems respond to specific features of family environments and the larger ecological context. Dr. Ellis' empirical work examines the impact of fathers, family relationships, and socioecological conditions on children's biological stress responses, timing of pubertal development, risky adolescent behavior and cognition, and related health outcomes. In addition to this basic research, he is interested in real-world applications in the form of theoretically-based interventions.

Tochukwu Nweze, Assistant Professor. Ph.D., 2022, University of Cambridge.

Dr Nweze's research investigates the link between early environmental experiences and different developmental processes across lifespan, including cognitive functioning and social-emotional processes as well as factors likely to predict whether an individual will be exposed to child adversity. One predictive factor being explored is the role of heredity and the possibility that one or more adversities may be passed on across family generations. To some extent, the effects of adversity are believed to be heterogeneous, with some individuals likely to achieve better outcomes than others after adversity. An important part of Dr Nweze's research will focus on these individual differences in relation to resilience and adaptation following adversity. Drawing insight from the theoretical paradigms of hidden talents, his research will examine how underprivileged children can leverage certain adaptive skills to achieve good real-life outcomes.

Monisha Pasupathi, Professor. Ph.D., 1997, Stanford University.

Dr. Pasupathi studies the development of self, identity, and memory, and she is especially interested in how children and adults integrate experiences within their sense of self.

Hearing and telling stories is one of the human endeavors that span both our ancient and present

cultures, from the hunting narrative implied by cave art to the latest Tim Burton film. Despite the advent of sophisticated technology (i.e., internet blogs) and entire economies (Hollywood in the U.S. and Bollywood in India, for example) founded primarily around modern practices for storytelling, we continue to also tell stories in the 'old' ways - in words, face-to-face, among intimates. Dr. Pasupathi believes that these 'old' ways of telling stories create our selves and our relations with others. Moreover, they do so in collaboration, both positive and negative, with family and friends.

Lee Raby, Associate Professor. Ph.D., 2013, University of Minnesota

Dr. Raby's research addresses longstanding questions regarding the significance of early parent-child relationship experiences. Specifically, he examines the degree to which various early caregiving experiences predict individuals' social, cognitive, and behavioral functioning during childhood, adolescence, and into adulthood. Dr. Raby also researches the representational and psychophysiological processes that may account for these enduring effects.

Cecilia Wainryb, Professor. Ph.D., 1989, University of California, Berkeley.

Dr. Wainryb studies moral development. Her research concerns how children and adolescents further their moral understandings through their everyday experiences, and how these developments are shaped by violence, war, and injustice.

Allied Faculty (Psychology)

Brian Baucom (Associate Professor, Clinical Area, Department of Psychology, University of Utah). How romantic partners' thoughts, feelings, and behaviors during conflict are related to their individual well-being and to the health of their relationships. Serves on student committees, teaches relevant courses.

Michael Himle (Associate Professor, Clinical Area, Department of Psychology, University of Utah). OCD and OC-Spectrum Disorders.

Patricia Kerig (Professor, Director of Clinical Training, Department of Psychology, University of Utah). The family processes that contribute to the development of/for protection against psychopathology.

Carol Sansone (Professor, Social Area, Department of Psychology, University of Utah). Process through which individuals across the lifespan create and maintain motivation. Collaborates with Berg on life-span study of everyday experiences and problems, serves on student committees.

**APPENDIX D
EVALUATION OF PROGRESS**

Students will complete an annual evaluation form, typically in March or early April. Attached is a sample form.

1. Name/Date:

2. Area:

3. Year in program:

4. Date expected/completed for.....

1) Master's proposal	Date: _____	On track?	YES	NO
2) Master's defense	Date: _____	On track?	YES	NO
3) Pre-doctoral projects/exams begun	Date: _____	On track?	YES	NO
3) Pre-doctoral projects-exams completed	Date: _____	On track?	YES	NO
4) Dissertation proposal	Date: _____	On track?	YES	NO
5) Dissertation defense	Date: _____	On track?	YES	NO
6) Other (Area Specific)	Date: _____	On track?	YES	NO

5. If you are not on track for any of the above, what is your specific plan and timeline for getting back on track?

6. Please list any publications, conference presentations, or honors / awards in the prior year:

7. Please list other accomplishments of which you are most proud over the previous year:

8. Please summarize your specific progress/accomplishments regarding your Master's or dissertation:

9. List your coursework over the previous year and your grades:

10. Please list courses that you have taught.

ASSESS YOUR PROFICIENCY IN THE FOLLOWING AREAS

1 = drastic improvement needed	2 = foundation laid, but much more direct experience necessary	3 = solid competence; needs fine- tuning	4 = highly proficient; maintain current skill level	N/A = not applicable
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11. Development of expertise with specific CONTENT areas (for example, "dynamical systems theory" or "child psychopathology"), needed for successful completion of your Ph.D.. List content areas IN ORDER OF PRIORITY. Do not include methodologies or statistics.

Area 1:	1	2	3	4
Area 2:	1	2	3	4
Area 3:	1	2	3	4
Area 4:	1	2	3	4
Area 5:	1	2	3	4
Area 6:	1	2	3	4
Area 7:	1	2	3	4

12. RESEARCH SKILLS.

Critically evaluating research articles.	1	2	3	4	N/A
Coming up with original research questions.	1	2	3	4	N/A
Translating research questions into testable hypotheses.	1	2	3	4	N/A
Basic regression and ANOVA.	1	2	3	4	N/A
Multivariate statistics.	1	2	3	4	N/A
Hierarchical linear modeling and other mixed modeling.	1	2	3	4	N/A
Structural equation modeling.	1	2	3	4	N/A
Growth curve modeling.	1	2	3	4	N/A
Power calculations.	1	2	3	4	N/A
Additional statistical techniques:	1	2	3	4	N/A
Additional statistical techniques:	1	2	3	4	N/A
Identifying the right technique to use.	1	2	3	4	N/A
Using SPSS (including syntax).	1	2	3	4	N/A
Using other statistical program: 1) _____.	1	2	3	4	N/A
Using other statistical program: 2) _____.	1	2	3	4	N/A
Screening and cleaning data.	1	2	3	4	N/A
Handling missing data.	1	2	3	4	N/A
Experimental design.	1	2	3	4	N/A

13. Specific methodologies (i.e., FMRI, SASB coding, cardiac impedance). List in order of importance

1:	1	2	3	4
2:	1	2	3	4
3:	1	2	3	4
4:	1	2	3	4
5:	1	2	3	4
6:	1	2	3	4

14. WRITING

Basic writing style (sentence and paragraph structure, etc.).	1	2	3	4	N/A
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Mastering the style of scientific writing.	1	2	3	4	N/A
Mastering the style of grant (proposal) writing.	1	2	3	4	N/A
Revising in response to feedback.	1	2	3	4	N/A
Sticking to a writing schedule.	1	2	3	4	N/A
Meeting writing deadlines.	1	2	3	4	N/A
Juggling multiple writing projects.	1	2	3	4	N/A
Managing co-authorship.	1	2	3	4	N/A
Providing feedback on others' writing.	1	2	3	4	N/A

15. RESPONSIBLE AND PROFESSIONAL CONDUCT OF RESEARCH

Writing consent and debriefing forms.	1	2	3	4	N/A
Managing IRB submissions, renewals, amendments.	1	2	3	4	N/A
Identifying and minimizing risks to research participants.	1	2	3	4	N/A
Fair distribution of responsibilities and authorship in collaborations.	1	2	3	4	N/A
Setting and maintaining priorities.	1	2	3	4	N/A
Time management.	1	2	3	4	N/A

16. ORAL PRESENTATION AND TEACHING

Designing an oral presentation, poster presentation or lecture.	1	2	3	4	N/A
Comfort with oral delivery.	1	2	3	4	N/A
Responding to questions.	1	2	3	4	N/A
Writing exams.	1	2	3	4	N/A
Grading student papers.	1	2	3	4	N/A
Selecting readings and supplementary materials for a course.	1	2	3	4	N/A
Designing new courses.	1	2	3	4	N/A
Teaching online.	1	2	3	4	N/A

17. INTERPERSONAL SKILLS AND PROFESSIONALISM

Communicating effectively with your mentor and committee members.	1	2	3	4	N/A
Communicating effectively with students and RAs under your responsibility.	1	2	3	4	N/A
Taking constructive criticism.	1	2	3	4	N/A
Providing constructive criticism.	1	2	3	4	N/A
Managing relationships with collaborators and colleagues.	1	2	3	4	N/A
Resolving conflicts.	1	2	3	4	N/A
Sensitivity to diversity (in the classroom, in the laboratory, in the department)	1	2	3	4	N/A
Seeking help and guidance when needed.	1	2	3	4	N/A
Providing help and guidance when needed.	1	2	3	4	N/A
Leading and motivating others.	1	2	3	4	N/A

18. ADDITIONAL SKILLS (for clinical students, this can include clinical goals)					
	1	2	3	4	N/A
	1	2	3	4	N/A
	1	2	3	4	N/A
	1	2	3	4	N/A
	1	2	3	4	N/A
	1	2	3	4	N/A
	1	2	3	4	N/A

19. Of the above areas, which are your most important priorities for the coming year?

20. Of the above areas, which have proved most challenging or given you unexpected difficulties?

21. Outline the specific steps that you will take in the coming year to address your priorities as outlined above. This might include additional consultation with your advisor or other faculty members, seeking a writing tutor, additional coursework, volunteering time in another laboratory, attending a specific conference. IDENTIFY A TIME GOAL FOR EACH AREA.

22. Distribution of effort: Using the diagram below, roughly chart the percentage of time that you have spent in the previous year devoted to the following activities (or, if you prefer, just list the percentages instead of drawing them, whatever works for you!)

- 1) Coursework
- 2) Research activities
- 3) Writing (thesis, proposal, publication, grants)
- 4) Teaching
- 5) Skill development (outside of coursework)
- 6) Professional activity (conferences, networking, service)
- 7) Clinical work
- 8) Departmental or University service

23. Are you satisfied with the distribution of your effort? If not, why not? If you would like it to change next year, please outline what specifically should change, and how you plan to accommodate these changes (i.e., if you want to increase the allotment to one area, you will need to decrease it for another).

24. Please list specific obstacles that have impeded your progress in the previous year (i.e., too much time spent preparing courses, poor time management, writer's block, etc.)

25. Please outline the specific steps you will take in the coming year to eliminate these obstacles. IDENTIFY A TIME GOAL FOR EACH STEP.

26. Please list any areas or obstacles for which you think that you would benefit from additional guidance, or in which you feel "stuck" and are not sure how to proceed. Be as specific as possible, so that we can identify the best way to assist you.

APPENDIX E OSF PRE-REGISTRATION

Additional templates available at: <https://help.osf.io/article/229-select-a-registration-template>. The following is the “As Predicted Template for Pre-Registration Beginners.” See <https://osf.io/byu28> for sample responses for each question.

Project Working Title:

Authors:

Affiliation:

OSF Pre-Registration: As Predicted Template

- 1) **Have any data been collected for this study already?**
 - *“Yes, at least some data have been collected for this study already.”*
 - *“No, no data have been collected yet.”*
- 2) **What's the main question being asked or hypothesis being tested in this study?**
- 3) **Describe the key dependent variable(s) specifying how they will be measured.**
- 4) **How many and which conditions will participants be assigned to?**
- 5) **Specify exactly which analyses you will conduct to examine the main question/hypothesis.**
- 6) **Any secondary analyses?**
- 7) **How many observations will be collected or what will determine sample size? No need to justify decisions, but be precise about exactly how the number will be determined.**
- 8) **Anything else you would like to pre-register (e.g., data exclusions, variables collected for exploratory purposes, unusual analyses planned)?**

APPENDIX E
CAREER DEVELOPMENT PLAN FORM

Career Development Plan for:

Date:

1. Describe the steps you took to explore your interests, skills, values, and career goals. Who did you meet with? What tools did you use?
2. Describe your current career goals and how they relate to your interests, skills, and values.
3. Describe how your career goals integrate with the training offered in the Developmental Area.
4. Describe the kinds of training, certifications, and experiences required to support your goals.
5. Outline your planned coursework, including alternative courses; approximately 4 courses will likely be required following the Master's to meet the Ph.D. credit hour requirements. Briefly state how each course will contribute to your CDP. CDPs should highlight breadth in the components of scientific psychology by incorporating coursework across the four DSK categories 1) Basic Content Areas in Scientific Psychology (Affective, Biological, Cognitive, Developmental, and Social aspects of behavior); 2) Advanced Integrative Knowledge in Scientific Psychology; 3) Research Methods, Statistical Analysis, and Psychometrics; and 4) History & Systems of Psychology.

Prior to CDPs, typical additional Ph.D. coursework included 2 Developmental seminars (7000-level), 1 additional Basic Content/Advanced Integrative Knowledge course, and 1 non-developmental seminar.

6. Identify additional planned training opportunities, including plans for publications, conferences, certifications, workshops, teaching, departmental service and other professional development experiences.

_____ (signature, student), _____ (date)

_____ (signature, advisor), _____ (date)

_____ (signature, committee member/advisor), _____ (date)

_____ (signature, committee member/advisor), _____ (date)

_____ (signature, Developmental area coordinator), _____ (date)

APPENDIX F
ADVISOR-ADVISEE COLLABORATION AGREEMENT

Student _____
School Year & Year in Program _____
Advisor _____

The purpose of this agreement is to document mutual expectations concerning our collaboration. It will be completed *collaboratively* by the mentee and the mentor.

1. Time Frame and Time Commitment

What is the duration of the collaboration covered by this agreement and the time commitment expected of the student and mentor?

2. Compensation/Funding

What kind of compensation, if any, is offered to the student? This might include basis of work for stipend (e.g., TA, RA), etc. Has the mentor agreed to fund the student for a particular study or during a particular time (e.g., GRA Fall on X grant; summer funding)?

3. Preferred Modes and Style of Communication

How do the student and mentor prefer to communicate, and with what frequency? What are the preferred forms of address (names, pronouns), and what degree of formality in language is preferred? Who will the student be interacting with or reporting to and how frequently?

4. Meetings

How often will the student and mentor meet, and who is responsible for setting the agenda?

5. Performance Evaluation and Outcome Assessment

What is expected of the student in terms of specific work products or outcomes? How will the student's development as a professional be evaluated? How will this evaluation be communicated to the student, and with what frequency? In other words, how will the student and mentor know whether or not the mentoring relationship has been successful?

6. Mentor Conflict of Interest

If the student is to work on a project related to any research in which the mentor has a personal conflict of interest or a financial conflict of interest as determined by the University of Utah Conflict of Interest Office and Committee, the mentor will disclose the conflict of interest to the student prior to start of the project. Visit research.utah.edu/integrity/.

7. Certifications/Training

Are any certifications required before the student can participate in the research? What is the plan for securing any required certifications? These might include training in lab safety, responsible conduct of research, human subjects protections, HIPAA certification, etc.

8. Rules and Procedures

Where can the student learn about rules and procedures associated with the research? What should the student do in case of an emergency associated with the research? What is considered an

emergency in the context of the research? What should the student do if they make a mistake?

9. Citizenship

What are the expectations of the student with respect to attendance at research meetings, colloquia, and other events? Are there specific lab or research group expectations?

10. Authorship

Should the research in which the student is involved be published (or otherwise disseminated), how will credit for the work be determined? Are there any restrictions on the release of information that should guide the student's communication about the research (e.g., in the case of patents or other sensitive information)?

11. Mentor Commitments

In all cases, the mentor commits to:

- a. Provide the student with hands-on experience in research;
- b. Support the student's well-being and development personally and academically;
- c. Endeavor to be as clear as possible about expectations;
- d. Be honest and straightforward with the student about their work;
- e. Openly receive feedback from the student concerning the quality of the research experience; and
- f. Be available to the student as an academic mentor.

To the extent that the student is interested, and as appropriate, the mentor will:

- g. Encourage and help the student develop their own research projects and/or involve them more profoundly in existing projects;
- h. Help them secure resources to enhance and continue their participation in research (e.g., research experiences, grants, etc.);
- i. Provide advice to the student concerning next steps (graduate school progress, post-docs, employment, etc.);
- j. Support the student's efforts to earn awards and other recognition for their research efforts.
- k. _____ (as advisor and advisee see necessary)

At the end of the time frame agreed on above, the student and mentor will review this document together, and will evaluate the success of the mentoring relationship.

I (above-named student), agree to the above. _____, _____
Signature Date

I (above-named mentor), agree to the above. _____, _____
Signature Date