



THE UNIVERSITY
OF ARIZONA®

JOHN AND DORIS NORTON
School of Family and Consumer Sciences

GRADUATE PROGRAM HANDBOOK

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PROGRAM INTRODUCTION

The doctoral program in the John and Doris Norton School of Family and Consumer Sciences (Norton School) trains social and behavioral scientists for research, teaching, and other professional careers in academic, government, and the private sector. Students can choose to specialize in one of two areas of emphasis, namely Family Studies and Human Development (FSHD) or Retailing and Consumer Sciences (RCSC), offered by the respective programs.

In order to fulfill the requirements for a Ph.D. in Family and Consumer Sciences (FCS), students must have a Master's degree. FSHD additionally requires that this Master's degree include an empirical Master's thesis. Students admitted into the doctoral program without having previously completed these Master's requirements must, therefore, complete a M.S. degree in FCS as they make progress towards a Ph.D. degree in FCS.

FSHD EMPHASIS

The interdisciplinary field of Family Studies and Human Development focuses on interpersonal processes and outcomes that influence and are influenced by human development within the family context. Relevant methods, concepts, and theory draw from the fields of FSHD and from psychology, sociology, anthropology, economics, biology, health, and education. Research, teaching and outreach within the FSHD Division are focused in four core areas:

- Resilience and health of marginalized populations
- Early childhood and adolescent populations
- Romantic and family relationships across the lifespan
- Innovative methods and models for studying families and development

RCSC EMPHASIS

The interdisciplinary field of Retailing and Consumer Sciences focuses on the procurement, distribution, marketing and sale of products and services to consumers with an emphasis on the final link between the retailer and their customers. As such, students are exposed to methods, concepts, and theory from marketing, management, psychology, and economics. Research, teaching, and outreach within the RCSC Division are focused in two areas:

- Retail management
- Consumer behavior

DIRECTOR OF GRADUATE STUDIES

The Director of Graduate Studies conducts new student orientations, coordinates program requests or requirements with the Graduate College, and maintains the Graduate Handbook in consultation with the Graduate Committee and Program Chair in each program (FSHD & RCSC), as well as the Norton School Director. This position is currently held by:

FSHD

Dr. Emily Butler
MCPRK 301G
(520) 730-9332

eabutler@email.arizona.edu

RCSC

Dr. Sabrina Helm
MCPRK 425A
(520) 621-7130

helm@email.arizona.edu

GRADUATE COORDINATOR

The Graduate Coordinator provides administrative support to both Directors of Graduate Studies and serves as the liaison between the students and the Graduate College. This position is currently held by:

Linda Burkholder
Graduate Coordinator
520-621-1295
lindab2@email.arizona.edu

GRADUATE COMMITTEE

The Graduate Committee, in collaboration with the Admissions Committee, in each program (FSHD & RCSC) manages the recruitment, admission, and assessment of graduate students. It also has responsibility for the overall evaluation of the graduate program. The Director of Graduate Studies in each program chairs its Graduate Committee. There is a student representative on the Graduate Committee.

ORIENTATION

Graduate student orientation, led by the FSHD and RCSC Directors of Graduate Studies, is held the week before fall classes begin. In addition, a sequence of 1 hour professional development workshops will be held in the Fall semester. All new students are expected to attend the orientation and workshops.

ADVISING

The responsibility for graduate student advising rests with the student's major advisor, the Director of Graduate Studies, and the Graduate Committee. Upon admission to the program, each student is assigned to a major advisor (also known as *major professor*). The major advisor is responsible for helping a student finalize his/her plan of study, supervising the student's Master's thesis and/or Doctoral dissertation, coordinating the comprehensive exam process for the student, coordinating the dissertation proposal meeting and final defense, and reporting the results of such examinations to the Graduate Committee within 48 hours. It is recommended that a student select a major advisor based upon his/her research and academic interests. In selecting a major advisor, a student should seek multiple contacts with graduate faculty and thoroughly review faculty research publications. Students are also strongly encouraged to seek out additional faculty mentors to serve on the student's committees, to provide interdisciplinary experience and training, and for additional publication and collaboration opportunities. Should problems arise between a student and his/her major advisor, or if their interests diverge, the student should first discuss this with the major advisor. As a next step, students can seek counsel from the Director of Graduate Studies, the School Director or Co-Director, or any other faculty member.

PROGRAM OVERVIEW

The doctoral program includes basic and applied courses, which provide broad exposure to relevant theories and research methods with in-depth specialization in a major (FSHD or RCSC) emphasis area, and encourages ongoing student involvement in research, including but not limited to the thesis and dissertation. In addition to major coursework, a student is required to choose a minor outside of the major to enhance the student's ability to solve problems from an interdisciplinary perspective. Other elements of the doctoral program are the research mentorship program, research methods and statistics courses, and the doctoral dissertation. Through the doctoral program, a student will acquire a firm foundation in theory and research methods relevant to their emphasis area and will also become competent in advanced statistical techniques necessary for conducting research.

A primary expectation for all entering graduate students (including international students) is that their written communication skills in the English language are at an appropriate level for the graduate program. Therefore, students should possess appropriate knowledge of and proficiency in academic, formal writing, including mastery of English grammar and punctuation, ability to organize ideas, and logical presentation of ideas. Students wishing to hone skills in writing may avail themselves of a variety of graduate writing tutorials, institutes, and workshops offered by the Graduate College (see http://grad.arizona.edu/Current_Students/). In addition, the Center for English as a Second Language (CESL) offers an academic writing/speaking course, ENGL 407, for nonnative speakers/writers. Students may also be requested to enroll in specific courses by the Graduate Committee if deficiencies are identified in their writingskills.

GRADPATH

GradPath is the Graduate College's nearly paperless degree audit process for submitting and approving all academic forms. Students fill in and submit forms online through UAccess Student (<http://uaccess.arizona.edu/>). Forms have some automatic checking built in that prevents common errors (e.g., typos in course numbers, illegible faculty names, etc.). There is also some built-in logic to notify students when there is a problem with a form, such as courses outside the time limit. Such messages include links to policy. The GradPath automated workflow engine routes the electronic forms to everyone who needs to see or approve them. Students can check the status of their forms at any time, and GradPath lets students know what forms next need their attention.

TRANSFER COURSE APPROVAL

Graduate coursework completed at other institutions may be transferred to apply toward FCS degree requirements, but will not be included in the calculation of the University of Arizona G.P.A. Transferred units are subject to the following restrictions:

- The credits must be approved by the Graduate Committee and the Graduate College.
- The minimum grade for transferred credits must be an A or B or equivalent at awarding institution.
- Transferred units may not count toward more than one graduate degree.
- A student may not use more than 30 credits from an earned master's degree from another university toward a University of Arizona doctorate.
- A student may not apply more than 6 credits from another university toward the requirements for the M.S. degree.
- There is no limit to the number of credits from other UA degree programs that may be applied toward the M.S. or Ph.D. degree.
- If a student counts credits from a UA M.S. or M.A. towards a UA Ph.D., then additional transfer

credit may be limited to ensure that some UA coursework is taken while in the doctoral program.

- Credit for correspondence courses or extension work obtained at other institutions will not be accepted for graduate credit.

Required FCS graduate courses in the areas of theory, research methods and statistics, as well as professional development, cannot be waived without approval from the Graduate Committee. With approval from the Graduate Committee, these courses may be substituted by other graduate-level courses taken outside of FCS, for which the student received a grade of a B or higher. When seeking approval for credit for a required course, the procedure is as follows:

1. Within the first year of graduate study, in consultation with their major advisor, the student must provide a course syllabus for the proposed substitution course to the Graduate Committee.
2. The Graduate Committee, with the instructor of the corresponding FCS course, will review the syllabus to assure that it meets the FCS course goals and objectives.
3. The Graduate Committee will make a final determination on the recommendation.

The Graduate College encourages students to request evaluation of prospective transfer coursework before the end of the first year of graduate study. Requests are made using the Evaluation of Transfer Credit form available on UAccess Student under Academics/GradPath Forms. The Graduate Degree Certification office will evaluate the courses and inform the student of which courses are eligible for transfer and their unit worth. The transfer award is then made when the Graduate College approves the student's Plan of Study listing eligible transfer coursework. The Graduate Committee recommends that students who enter the program with a Master's degree from another institution, with the intent of transferring coursework to apply toward their FCS degree (FSHD or RCSC emphasis) requirements, initiate the course transfer process as early as possible, including at the time of their application to the program or shortly after their acceptance into the program.

MINIMUM CREDIT LOADS

Students supported by teaching or research assistantships or associateships through the College of Agriculture and Life Sciences (CALs) are required to enroll in a minimum of 10 units during fall and spring semesters. This 10- unit policy applies to most graduate students. However, students who hold fellowships, grants, or other assistantships outside of CALs should consult the minimum enrollment load requirements in order to comply with those requirements.

The Graduate College requires all students to enroll for a minimum of 3 units per fall and spring semesters (for a total of 6 per academic year) to be considered active in the University system. Ph.D. students who have completed all course work, comprehensive examinations, and 18 dissertation units, and are not supported by CALs are able to enroll in 1 unit per semester until final copies of the dissertation are submitted to the Graduate Degree Certification Office. Again, if you have other funding sources requiring full-time enrollment please enroll for those minimum units. If students do not enroll in any units for fall or spring, they will be deactivated.

For further information pertaining to university policies regarding minimum credit loads for graduate students, see <http://grad.arizona.edu>.

There is also a new, no fee, summer-only course for students finishing a thesis or dissertation AFTER having completed all other requirements (e.g., 18 hrs for dissertation, etc). This will allow them library access. It can be taken only once and will be GRAD course. The Graduate College requires that all graduate students be

subject to the Continuous Enrollment Policy unless excused by an official leave of absence.

Note: while these enrollment requirements apply to all students without regard to nationality, international students may face a higher minimum requirement for their visas or other requirements of the international students' office.

HUMAN SUBJECTS TRAINING CERTIFICATION AND IRB APPROVAL

During their first semester of enrollment in the graduate program, all students are expected to complete University of Arizona--approved training on research with human subjects and to submit the Responsible Conduct of Research Statement form through GradPath. Information on the UA Human Subjects Protection Program is available at <http://orcr.arizona.edu/hssp>

All research on human subjects, regardless of degree (M.S. or Ph.D.), whether funded or not, and regardless of the source of funding, must fully comply with Federal human subjects rules, regulations and requirements. Students who plan to conduct research involving human subjects must complete a "Project Review Form" (PRF, available online through the UA Human Subjects Protection Program (HSPP)). The PRF must first be reviewed and signed by the student's advisor, then the Norton School Human Subjects Committee Chair, and finally the School Director, and then submitted electronically to the University Human Subjects Institutional Review Board (IRB). The IRB makes the final determination as to whether the project safeguards the privacy, confidentiality, and basic rights of human individuals involved in the project. The IRB may require changes before final approval is granted. All key personnel on projects involving human subjects must also complete an online training course before final approval is granted for the project. Students who are conducting research that may be exempt from IRB review must still complete a form that can be found on the HSPP website, <https://orcr.arizona.edu/hssp>

In the case of graduate students working on theses/dissertations that could be wholly covered by an existing approved protocol, such students may simply be listed on or added to the IRB form along with a clarification of their research role. This is typically the case where a graduate student develops a dissertation/thesis as part of a faculty member's broader research project. If the student's research protocol differs from that of the PI (e.g., additional or altered procedures or survey questions), or the student is carrying out an independent research project involving human subjects, then the student must gain separate IRB approval. Responsibility for ethical research behavior and for compliance with regulations belongs to the student researcher and the research advisor.

ANNUAL PERFORMANCE EVALUATION

The FSHD and RCSC Graduate Committees evaluate graduate students at the end of each academic year. This process is designed to promote the academic and professional development of graduate students, and to ensure broad faculty input into the advising and progress of graduate students in the program. It may also be used to inform teaching and research assignments or other funding decisions for the following year. The Committee will assess each student's academic, assistantship, and research performance using the criteria specified in the Annual Performance Evaluations.

Students complete a Student Annual Review Form (See FCS SARF, **Appendix A**), which identifies their stage in the graduate program, their accomplishments for the prior year, and their goals for the coming year. This form is completed and turned in to the Graduate Committee along with an updated curriculum vita. Faculty who serve in any advising role to graduate students (as a member of any student committee, or as a supervisor for a teaching or research assistantship) will complete a structured evaluation for each student (See FCS SARF--Evaluation, **Appendix B**). Based on these materials, as well as input from the full faculty, the

Graduate Committee provides written feedback for the student in consultation with his or her major advisor. The faculty may note minor concerns about a student's progress in one or more areas, or in overall performance. Reasons for concerns will be identified in the written feedback, along with recommendations for improvement.

Students who have not made appropriate progress toward their degree or who have not demonstrated academic competency and/or professionalism will be notified by the Committee and may be subject to disqualification from the program. If a student receives an "overall development" rating lower than a 2 on their SARF---Evaluation (annual student review conducted in May), the Graduate Committee will specify in writing remedial steps that the student must take by a specified date. If the student fails to meet the expectations by said date, there will be a vote by the faculty on whether to terminate the student from the graduate program. Termination must be approved by a majority of voting---eligible, tenure---track and continuing faculty. (Note: When deciding on what remedial steps the student must take, the Graduate Committee will get specific input from the student's major advisor. And, in taking the vote, the faculty will be able to take into consideration extenuating circumstances.) Student appeals to termination should be directed to the Graduate Director. A student who is removed from the graduate program becomes academically disqualified, but may still apply to the Graduate College to be converted to non---degree seeking graduate status.

SATISFACTORY ACADEMIC PROGRESS

Satisfactory academic progress is defined as:

- Coursework ----- Cumulative grade point average (GPA) of 3.00 or higher with course grades of A or B (in graded courses) and S or P (in ungraded courses).
- Assistantship Assignment (RA and TA) ----- High quality, dependable work and professionalism.
- Master's Thesis/Doctoral Dissertation ----- Maintaining satisfactory progress toward completion of degree through the development of sound topic, demonstration of substantive knowledge and methodological and statistical competence.

Students are encouraged to complete the FCS graduate program within five years based on full---time status. Students who are progressing toward completion of their degree within the recommended time frame will be granted priority in awarding graduate assistantships and other financial support. Students not making satisfactory academic progress may be asked to leave the graduate program and/or relinquish assistantship funding. Please refer to Annual Evaluation section above for specifics of this procedure.

PROGRAM REQUIREMENTS

DEGREE REQUIREMENTS

FCS requirements for the Ph.D. degree include the completion of:

- A Master's degree (FSDH & RCSC) with an empirical master's thesis (FSDH only).
- A pre-candidacy meeting during which faculty considers the student's suitability for continuation in the Ph.D. program.
- Written and oral comprehensive examinations covering the major and minor emphasis areas of study.
- A dissertation.

Additional Graduate College requirements for the Ph.D. degree include:

- At least 36 units (not including dissertation) in the major area and 9 units in the minor area, including any eligible transfer courses approved by the major or minor department. At least half of these credit units must be in courses for which ABC grades are given, with a minimum of 12 units of regular grades taken at The University of Arizona (note that this refers to 50% of the total units listed on the Doctoral Plan of Study). Students may take any courses they wish beyond those on the Plan of Study without regard to grading format
- 18 units of earned dissertation credit (e.g., FSDH 920).
- Required units must be at the 500-level or above at The University of Arizona.
- A minimum of 30 units must be taken at the University of Arizona (the total includes the 18 required dissertation units); a minimum of 12 units of regularly graded coursework must be taken at the University of Arizona.

COURSE REQUIREMENTS

All courses are 3-unit courses unless otherwise indicated. Research (i.e., independent study; FSDH 699) courses can be worth varying units of credit. Students should discuss the number of units expected for independent study courses at the time of enrollment with the supervising faculty member.

Students are expected to attend all graduate class sessions. Excused absences may be granted for extenuating circumstances, but students should be proactive and discuss these situations with the instructor at least two weeks ahead of time, and preferably sooner when possible. Regardless of the reason, missing a graduate class means missing substantial course content, and that content needs to be made up (as per the instructor's directions). Students who miss 2 or more classes (and thus major course content) would normally receive a reduced grade or an Incomplete. Under such circumstances, students may need to consider withdrawing from the course. University policy regarding absences is available at <https://deanofstudents.arizona.edu/absences>.

FSDH M.S. Degree

Theory (2 courses / 6 units)

FSDH 546 – Foundations of Family and Interpersonal Theory

FSDH 567 – Theories of Human Development

Research Methods (2 courses / 6 units)

FSDH 507a – Research Methods in Family Studies and Human Development I

FSDH 507b – Research Methods in Family Studies and Human Development II

Quantitative Analysis (2 courses / 6 or 7 units)

FSDH shares course offerings in quantitative analysis (e.g., statistics) with a number of other programs and students can choose to take any 2 classes that are most appropriate given their background. A full list of offerings is provided in Appendix D. However, most

FSHD students will be best served by taking the following 2 introductory/intermediate classes, which are offered by our program. Consult with your academic advisor to determine the best classes for you.

FSHD 537a – Introduction to Statistical Analysis, which is combined with FSHD 537L – Introductory Statistics Laboratory (1 unit)¹

FSHD 537b – Intermediate Statistical Analysis in Family Studies and Human Development

Topics in Core Areas of Family Studies and Human Development (2 courses / 6 units)

Two 3-unit courses with course code of FSHD 601---605 or 607, or classes in the student's substantive area of focus at an equivalent level offered in another academic program

Professional Development (workshops)

A series of professional development workshops will be held during the first semester of the first year of the program and are required for new students. These workshops are mandatory, although they do not count for academic credit, which means that students do not register for the workshops, and they do not receive a grade. Generally, students will complete assigned readings prior to the workshops, but written assignments will be rare. Attendance will be taken at these workshops.

Research (6 units with primary professor, required) FSHD 910

FSHD Ph.D. Degree requires all the classes listed above, plus the following:

One additional approved research methods or quantitative course (e.g., a third course from the GTAS list (Appendix D); qualitative research methods; mixed methods) (1 course / 3 units)²

One additional Topics in Core Areas of Family Studies and Human Development (1 course / 3 units)³

Minor (3-4courses/ 9 – 12 units)

Typical emphasis areas include COMM, PSY, ED P, SOC, and ANTHRO. Students may also opt for an FCS Thematic Minor.

Professional Development (1 course / 3 units)

FSHD 696z

Independent Study for Comprehensive Examination (3 – 8 units with major professor)

FSHD 799a

Students must enroll in this independent study class with their primary professor to complete the written portion of their major Comprehensive Examination. This is intended to be a one semester only course. To receive a passing grade, students must complete the written portion of their major Comprehensive Exam before the grade is due. As is true for all Independent Study work, this requirement will be written into an Independent Study Proposal Form that is used to describe the student's plans and goals for their independent work over the semester. If there are extenuating circumstances and the student does not complete the written portion of the major Comprehensive Exam before grades are due, a student can take an Incomplete (I) for the course, given the approval of their major advisor. Students are advised to conduct background work, such as initial conversations with major committee members and preparation of a reading list, before taking this class. This may include a preceding Independent Study course (i.e., FSHD699).

Research (18 units with major professor)

FSHD 920

Students may not enroll in more than 9 units per semester.

¹ FSHD 537L may be waived only with instructor permission.

² Students who pursue an FCS Thematic Minor in Statistics (our "in-house" Statistics Minor) are permitted to apply their 6th stats/methods course taken in fulfillment of the major degree (the "one additional approved methods/statistics

course”) toward fulfillment of their minor requirements as well.

³Students who complete FSHD 601-•-607 courses in the context of an FCS Thematic Minor are permitted to apply those classes toward the fulfillment of the Topics in Core Areas of FSHD requirement as well.

RCSC M.S. Degree

Foundation Core (3 courses/ 9 units, each required)

RCSC 634 – Current Research Issues in Retail

Management MKTG 696d/696g – Consumer Behavior

RCSC 696f – Research Process and Academic Writing

Theory (2 courses / 6 units from below list, each required)

RCSC 607 – Topics in Retailing and Consumer Sciences

RCSC 696a – Theoretical Perspectives in Global Consumption and Retailing

RCSC 696b – Theory and Research in Non---store and Multichannel Retailing

RCSC 696c – Theory and Research in Services Retailing

RCSC 696e – Qualitative Data Analysis: Theory, Method and Applications

RCSC 696g – Inter-organizational Issues

Research Methods and Statistics (4 courses/ 7 units, each required)

FSHD 507a – Research Methods in Family Studies and Human

Development I FSHD 537a – Introduction to Statistical Analysis of Family Studies and Human

FSHD 537L – Introductory Statistics Laboratory (1

unit)⁴

One additional approved statistics course from FSHD, ED P, SOC, PSY, or MGMT

Research (6 units with major professor, required)

RCSC 910

RCSC Ph.D. Degree

Foundation Core (3 courses / 9 units, each required)

RCSC 634 – Current Research Issues in Retail

Management MKTG 696d/696g – Consumer Behavior

RCSC 696f – Research Process and Academic Writing

Theory (3 courses/ 9 units from below list, each required)

RCSC 607 – Topics in Retailing and Consumer Sciences

RCSC 696a – Theoretical Perspectives in Global Consumption and Retailing

RCSC 696b – Theory and Research in Non---store and Multichannel Retailing

RCSC 696c – Theory and Research in Services Retailing

RCSC 696e – Qualitative Data Analysis: Theory, Method and Applications

RCSC 696g – Inter---organizational Issues

Research Methods and Statistics (5 courses / 10 units, each required)

FSHD 507a – Research Methods in Family Studies and Human

Development I FSHD 537a – Introduction to Statistical Analysis of Family Studies and Human

FSHD 537L – Introductory Statistics Laboratory (1 unit)

FSHD 537b – Intermediate Statistical Analysis in Family Studies and Human

Two additional approved statistics courses from FSHD, ED P, SOC, PSY, or MGMT

Minor (courses/ 9 – 12 units, required)

Typical emphasis areas include MKTG, COMM, PSY, ED P, SOC, and MGMT. Students may also opt for a

FCS Thematic Minor.

Professional Development (2 courses / 3 units required)

FSHD First Year Professional Development

RCSC 799 – Independent Study (in the second or third year; 2 units)

Under the direction of a tenured or tenure-track faculty mentor, this course affords doctoral students the opportunity to take leadership for a research project. This type of research activity is differentiated from dissertation research in that it should be conducted prior to the student's defense of a dissertation proposal and is structured as an independent study with one faculty mentor. As such, it should provide the student with an opportunity to publish a piece of research prior to the completion of their dissertation and to possibly work with faculty other than their major advisor.

Research (18 units with major professor,
required) RCSC 920

Students may not enroll in more than 9 units per semester.

Ph.D. Minor (FSHD & RCSC)

Students may choose one of three ways to meet the minor area course requirements.

External Minor:

In consultation with their minor area advisor(s), students will take 9–12 graduate units of minor coursework as required/approved by the minor department/program (e.g., Sociology, Communication, Marketing, Psychology, Anthropology, Women's Studies), all of which may be transfer units from prior graduate study. *The rules governing the external minor are determined by the minor department/program.*

FCS Thematic Minor:

In consultation with the minor area advisor(s), students may construct a thematic minor that includes 9–12 graduate units. The FCS Thematic Minor is an appropriate option when the minor is a subarea of the major and will include some FSHD/RCSC classes. Students who pursue an FCS Thematic Minor in Statistics (our "in-house" Statistics Minor) are permitted to apply their 6th stats/methods course taken in fulfillment of the major degree (the "one additional approved methods/statistics course") toward fulfillment of their minor requirements as well. In addition, students who complete FSHD 601–607 courses in the context of an FCS Thematic Minor are permitted to apply those classes toward the fulfillment of the Topics in Core Areas of FSHD requirement as well. What follows are examples of previous students' thematic minors and the coursework they completed to fulfill their thematic minor. These examples are offered as illustrations only:

FSHD

- Intervention Programs and Evaluation (3 FSHD units, 6 FSHD independent studies units, 3 CPH units)
- Children and Chronic Illness (3 FSHD independent study units, 3 COMM units, 6 transfer units from prior graduate study in child dev/pediatric psych)
- Statistics/Research Methods (9 FSHD units, 3 Ed Psy units)

RCSC

- We do not yet have examples of RCSC thematic minors, but such an option is possible for an RCSC student.

Students entering with a Master's degree have the option of doing an FCS thematic minor that includes one or more classes transferred from their Master's program. In this case, the student is not required to have a minor advisor. Instead, their major advisor can serve in both capacities and is responsible for

testing both major and minor areas of content during the Oral Comprehensive Exam.

Multidisciplinary Minor:

The UA now offers a Multidisciplinary Minor for students who want to create a minor from courses outside of their unit (<http://grad.arizona.edu/gccouncil/system/files/new%20minor.doc>). The Multidisciplinary Minor is an appropriate option when students want to construct an interdisciplinary minor that is not a subarea of their major. The student's committee approves the selection of the courses that constitute the Multidisciplinary Minor, and at least one of the instructors from the minor coursework serves on the comprehensive exam committee.

DEGREE TIMELINES

As of October 2013, the following is a list of the official forms that must be filed with the Graduate College via GradPath in progress toward completion of the Ph.D. (Forms subject to change; check Graduate College web site at <http://grad.arizona.edu/academics/degree---certification/steps> for current information.) Forms are available through UAccess Student under Academic/GradPath forms.

- Responsible Conduct of Research Form
- Evaluation of Transfer Credit (If applicable)
- Change of Degree (to add MS degree; not applicable to those entering with an approved MS)
- Master's Plan of Study
- Master's Committee Appointment Form
- Master's Completion Confirmation Form-----Graduate Coordinators submit this form on behalf of the student
- Doctoral Plan of Study
- Comprehensive Exam Committee Appointment Form
- Announcement of Doctoral Comprehensive Examination
- Results of the Oral Comprehensive Examination for Doctoral Candidacy (submitted by committee chair)
- Verification of Prospectus/Proposal Approval (i.e., Dissertation Proposal Approval; submitted by Graduate Coordinator)
- Doctoral Dissertation Committee Appointment Form
- Announcement of Final Defense
- Results of Final Defense (submitted by committee chair)

Recommended timeline for student pursuing both a M.S. and Ph.D. in FCS:

Year 1:

- File *Responsible Conduct of Research* Form
- File *Evaluation of Transfer Credit* form if applicable
- Change of Degree* forms to add M.S. degree if applicable
- File *Master's Plan of Study*
- Identify research areas of interest
- Form thesis committee; file *Master's Committee Appointment* Form
- Begin work on thesis proposal

Year 2:

- Propose thesis; begin data collection

Year 3:

- Defend completed thesis
- File *Master's Completion Confirmation* form
- Email the Director of Graduate Studies to request the formation of a pre-candidacy committee
- Complete pre-candidacy meeting
- Identify an area of interest for minor and a minor advisor
- File *Doctoral Plan of Study* form
- Identify comprehensive examination committee, format, and content
- File *Comprehensive Exam Committee Appointment* Form

Year 4:

- Schedule oral comprehensive exam; File *Announcement of Doctoral Comprehensive Exam*
- Pass written and oral comprehensive examination for minor and major
- File *Results of Oral Comprehensive Exam for Doctoral Candidacy* form
- File *Doctoral Dissertation Committee Appointment* form
- Propose dissertation; File *Verification of Prospectus/Proposal Approval*

Year 5:

- Complete dissertation
- File *Announcement of Final Defense* form (at least one week before dissertation defense)
- Pass final defense and submit dissertation to Graduate College by deadline for graduation term (see <http://grad.arizona.edu/academics/degree---certification/deadlines---for---graduation>).

Recommended timeline for student pursuing only a Ph.D. in FCS:

Year 1:

- File *Responsible Conduct of Research* Form
- File *Evaluation of Transfer Credit* form if applicable
- Identify research areas of interest for the major
- Identify an area of interest for the minor and a minor advisor

Year 2:

- Email the Director of Graduate Studies to request the formation of a pre-candidacy committee
- Complete pre-candidacy meeting
- File *Doctoral Plan of Study* form
- Identify comprehensive examination committee, format, and content
- File *Comprehensive Exam Committee Appointment* Form

Year 3:

- Schedule oral comprehensive exam; File *Announcement of Doctoral Comprehensive Exam*
- Pass written and oral comprehensive examination for minor and major
- File *Results of Oral Comprehensive Exam for Doctoral Candidacy* form
- File *Doctoral Dissertation Committee Appointment* form
- Propose dissertation; File *Verification of Prospectus/Proposal Approval*

Year 4:

- Complete dissertation
- File *Announcement of Final Defense* form (at least one week before dissertation defense)
- Pass final defense and submit dissertation to Graduate College by deadline for graduation term (see

TIME LIMITS ON COMPLETION

For the M.S. degree, time---to---degree begins with the earliest course to be applied toward the degree, including credits transferred from other institutions. It is expected that all requirements for the M.S. degree will be completed within three years of admission to the graduate program. All requirements for the Ph.D. must be completed within 5 years of passing the Comprehensive Examination. Students who take longer than 5 years from the completion of the oral comprehensive exams must repeat both sections of the comprehensive exam. In the case of transfer coursework, note that the Graduate College allows 6 years from the date of the earliest coursework to be used toward the degree (that is, coursework listed on the Plan of Study).

A student who will be unable to complete the degree (M.S. or Ph.D.) within the allowed time can request an extension of time from the Graduate College by way of a Graduate Petition. Petitions for additional time may be granted by the Graduate College, but only under exceptional circumstances "above and beyond the student's control", and permission may be denied.

COMMITTEE FORMATION

During the course of graduate study, the student works with three or four sequentially constituted committees:

1. The *Master's Thesis Committee*, selected by the student in consultation with the major advisor, guides and evaluates the student's work through completion of the M.S. degree, if applicable.
2. The *Pre-Candidacy Committee*, appointed by the Graduate Director and chaired by the major advisor, determines if the student should proceed to the comprehensive examination.
3. The *Comprehensive Examination Committee*, selected by the student in consultation with the major advisor, reviews the student's goals and plan of study and conducts the examination that establishes candidacy for the Ph.D. degree.
4. The *Dissertation Committee*, selected by the student in consultation with the faculty advisor, oversees the Ph.D. dissertation project and conducts the final oral defense.

Committee members are expected to work closely with the student and major advisor to ensure that the student follows a meaningful program that is completed within a reasonable time limit. All committee members are expected to return any related materials given to them for review within a reasonable time. As a corollary, students are required to submit materials for committee members to review at least two weeks prior to the defense. A student may request a change in his or her committee. The student should work in consultation with his/her major advisor and then notify the Director of Graduate Studies and the Graduate College. Policies of minor departments may vary; therefore, check for specifics through the minor department.

Committee Composition

Master's Thesis Committee:

- The Master's Thesis committee consists of the student's major advisor (chair or co-chair) and two other faculty members.
- The major advisor for a Master's Thesis committee must have a formal FCS appointment in FSHD or RCSC. Faculty with a courtesy appointment in FCS may serve as a co-chair, but not as the sole chair, of Master's Thesis committees.
- At least two members must be tenured, tenure-track, or approved as tenure equivalent
- In addition to the major advisor, one additional committee member must have either a formal or courtesy FCS faculty appointment.

Pre-candidacy Committee:

The purpose of the pre-candidacy meeting is to determine whether a student should proceed with preparation for the Comprehensive Examination. Through this meeting the faculty reviews and evaluates all students shortly after the completion of the requirements for the master's degree.

The student is required to have a pre-candidacy meeting within three academic calendar months of the completion of the requirements for the master's degree or within the fall semester of the second year for students entering the PhD program with a Master's degree. The student should email the Graduate Director requesting the formation of a Pre-Candidacy Committee; the student should propose two faculty members to serve on the committee. The Graduate Director will appoint a committee, including at least one member of the master's committee, as well as faculty who did not serve on the student's master's committee. The student's major advisor will serve as committee chair. The student should provide the committee with an updated curriculum vita, a list of completed coursework (with grades), a statement of professional goals, and access to the master's thesis. The committee meets with the student and makes a written recommendation to the faculty at the next regularly scheduled faculty meeting.

Comprehensive Examination Committee:

Once the faculty votes to accept the student to pre-candidacy status, the student may form a comprehensive examination committee. The Graduate College's stated policy for the doctoral comprehensive examination committee is as follows:

- The examining committee must consist of a minimum of four members.
- The major advisor and two additional members must be tenured, or tenure track (or approved by the Graduate College as tenure equivalent).
- The fourth member may be tenured or tenure-track, or a special approved member. Special members must be pre-approved by the Dean of the Graduate College. Any of the following could serve as approved "special members": retired or emeritus faculty, adjunct or continuing faculty, or members from outside UA. Requests for special member approval are made by the School rather than by the student.
- Any members beyond the fourth can also be tenured or tenure-track, or special approved members.

The FCS faculty further clarifies this policy for graduate students to state that:

- The major advisor for doctoral student committees must have a formal FCS appointment in FSHD or RCSC. Faculty with a courtesy appointment in FCS may serve as a co-chair, but not as the sole chair, of doctoral student committees.
- Two out of the four members must have a formal FCS faculty appointment. A third member must have either a formal or courtesy FCS faculty appointment.
- There must be at least three committee members from the major and at least one committee member representing the student's minor. In the case of students entering the program with a Master's degree it is possible for the major advisor to also serve as the minor advisor (see FCS Thematic Minor above). The Minor Advisor, even if from a different department, must attend the oral portion of the exam.

Dissertation Committee:

The Graduate College's stated policy for the doctoral Dissertation Committee is as follows:

- The Graduate College requires a minimum of three members, all of who must be University of Arizona tenured, tenure-track, or approved as tenure equivalent. If a committee has only three Members, all must approve the dissertation. If the committee includes four or five members, there may be one

dissenting vote.

- The fourth member may be tenured or tenure-track, or a special approved member. Special members must be pre-approved by the Dean of the Graduate College. Any members beyond the fourth can also be tenured or tenure-track, or special approved members. Any of the following could serve as approved “special members”: retired or emeritus faculty, adjunct or continuing faculty, or members from outside UA. Requests for special member approval are made by the School rather than by the student.

The FCS faculty further clarifies this policy for graduate students to state that:

- The major advisor for doctoral student committees must have a formal FCS appointment in the FSHD or RCSC divisions. Faculty with a courtesy appointment in FCS may serve as a co---chair, but not as the sole chair, of a dissertation committee. “Special members” may also serve as co---chairs with approval from the Graduate College (request made by the School).
- In addition to the major advisor, one additional committee member must have either a formal or courtesy FCS faculty appointment.

MASTER’S THESES, DOCTORAL EXAMS, AND DISSERTATIONS

MASTER’S THESES

Early in the process of preparing for the Master’s Thesis, students need to submit a written Master’s Thesis proposal to their major advisor and Master’s Thesis committee members. Although the details of the Master’s Thesis proposal are determined in consultation with the major advisor and committee members, the proposal should include a brief review of relevant literature, clear statement of research question or hypotheses, proposed research methods, and a plan of analysis. After submitting the written proposal, it is the student’s responsibility to schedule a proposal meeting with their committee members to receive feedback on the proposal and approval to proceed. Students are required to submit the thesis proposal to the committee for review at least two weeks prior to the proposal meeting date. If that timeline is not met, the committee may request the meeting to be rescheduled. The Master’s Thesis committee may ask for revisions of the proposal.

A thesis is a formal document that adheres to guidelines set forth in the Graduate College Manual for Theses and Dissertations (available online). At minimum, it should include a statement of the research question, a review of relevant theoretical and empirical literature, a statement of the methods of study and plans of analysis, a presentation of results, and a discussion and conclusion that summarizes the results of the study and its implications for the field. It is expected that Master’s Theses meet the standards of publishable peer-reviewed journal articles.

An oral defense is required upon completion of the final draft of the thesis. Students are required to submit the final thesis to the committee for review at least two weeks prior to the oral defense date. If that timeline is not met, the committee may request the meeting to be rescheduled. The defense of the Master’s Thesis is closed to the public; however, a final presentation of the thesis may be scheduled to immediately precede the thesis defense, and may be open to the public.

PH.D. COMPREHENSIVE EXAMINATIONS

Students must take written and oral examinations covering both major and minor areas of study. The Comprehensive Examination includes written examinations in the major and minor areas of study, and an oral examination. One exception is that students entering the program with a Master’s degree

may waive the written minor exam (see FCS Thematic Minor above). Although there are no formal coursework requirements prior to taking the Comprehensive Examination, students would normally be expected to have completed most of their required coursework before advancing to this stage. Passing the Comprehensive Examination establishes candidacy for the Ph.D. degree (assuming all required coursework on the Plan of Study has been completed).

It is expected that the full major Comprehensive Examination Committee will meet at least once prior to the written major Comprehensive Examination. Based on the Committee's understanding of the student's professional goals, plan of study, and progress to date, the major Committee:

- Agrees on the format of that written major examination (sit-down, take-home, critical review paper, etc.).
- Coordinates selection of questions, topics, or tasks. If the student chooses to complete Comprehensive Examination questions (sit-down or take-home format), the usual procedure is for the committee to create those questions collaboratively, often with the major professor creating a first draft based on verbal discussions with the student and committee members, then getting feedback from the committee members on the content and clarity of the questions.
- Arranges for administration of the examination

Note that although there is no formal requirement or paperwork for a comprehensive exam proposal meeting and approval, it is recommended that students work closely with the major advisor and committee members to develop a reading list and a plan for the scope of the comprehensive exam topic, as well as to determine which format to pursue. Some students find it helpful to schedule a single in-person meeting with the whole major committee for this discussion, whereas others have individual in-person meetings with committee members and group and/or individual e-mail consultations. Students should discuss the best strategy with their major advisors.

The Written Portion of the Comprehensive Examination

The student and major advisor, in consultation with the Committee, decide the format and details of the examination. There are three common formats for the written portion of the major examination: sit-down, take-home, or critical review paper. For the sit-down format, the student typically has two 4-hour sessions to complete all questions. The student would normally take the exam in a classroom without notes or other materials. For the take-home format, the student typically receives all questions at 9 a.m. on Monday morning. The student then has five days to answer all questions and submit them by 5 p.m. that following Friday. For the critical review paper, the student writes a comprehensive literature review paper. These guidelines are offered for illustrative purposes to represent typical practices; the student and Committee can deviate from these practices as they decide is appropriate.

The sit-down or take-home major comprehensive examination is intended to test the student's comprehensive knowledge of the major subject area of study, both in breadth across the general field of Family Studies and Human Development and in depth within the areas of specialization. The sit-down or take-home examination includes questions that tap the student's comprehension of important theories, research methods and statistics, and substantive areas of specialization declared by the student. In the critical review paper format, the student writes a paper that specifically examines that student's substantive interest areas and that meets the standards of a published review paper in the student's field of specialization.

In addition to the written major exam, there is also a written minor exam or comparable requirements. The department granting the minor determines details of the written minor comprehensive exam. For students pursuing the FCS Thematic Minor, please see details above.

Members of the Committee representing the major are responsible for grading the major portion of the examination and voting to determine whether the written major examination grade is *pass*, *pass with minor revisions* (with the Committee providing instructions for revisions, and the advisor determining whether these revisions are successful), or *fail*. The voting process is usually conducted through email, with each committee member informing the Committee Chair of their vote. If the major examination grade is fail (defined as more than one negative or abstaining vote), there are two options: fail with the option to rewrite all or part of the written examination, or fail with no option to retake the examination (resulting in termination from the Ph.D. program). The Committee Chair must inform the student of the examination outcome in writing.

In the case of a grade of fail with option to rewrite, only one rewrite will be allowed; the major Committee will determine a time limit on the rewrite, and the Committee Chair is required to present the student with formal written feedback summarizing deficiencies of the written examination. After the rewrite, a vote will be taken by the committee to determine whether the student has passed the written major examination; there can be no more than one negative or abstaining vote.

Grading of the minor written examination and policies for the department granting the minor determines rewrites. For students pursuing the FCS Thematic Minor, the same rules apply to evaluation of the minor and major written examinations (except that there can be no negative or abstaining votes in evaluation of the written minor exam).

The Oral Portion of the Comprehensive Examination

After the student passes the written examinations in the major and minor areas, the Committee conducts a comprehensive oral examination. If the student has used the critical review paper format, then they are required to submit the final paper to the committee for review at least two weeks prior to the oral defense date. If that timeline is not met, the committee may request the meeting to be rescheduled. Prior to the oral examination, the student will be responsible for logging into GradPath and filling out the Announcement of Doctoral Comprehensive Examination form. Note that it is the responsibility of the student to ensure that the committee administering the comprehensive exams is valid under Graduate College policy (<http://grad.arizona.edu/academics/program---requirements/doctor---of---philosophy/comprehensive---examination>). Students can check with [Cindy Nguyen](#) 520.621.0119 in Graduate Degree Certification if there is any question about the planned committee's validity.

It is the obligation of the Committee to ensure that the student displays a broad knowledge of the general field of Family Studies and Human Development, and sufficient depth of understanding in areas of specialization; the student must demonstrate the level of knowledge expected of a junior academic colleague. The examination is conducted in closed session; it is not open to the public. All examiners must be present for the full length of the examination. The oral comprehensive examination must be at least one hour in duration, and may not exceed three hours. For the student to pass the oral comprehensive examination, there can be no more than one negative or abstaining vote.

If the student fails the oral examination by Committee vote, the Committee may make one of two decisions:

- The Committee may allow the student to re-take the oral comprehensive examination once after a specified preparation period, or
- The Committee may elect no repeat examination.

If re-examination is selected, the Committee may not require further coursework for the student. The Committee members for the repeat examination must be the same as those present at the first examination;

the Dean of the Graduate College must approve exceptions to this rule prior to the repeat examination. If a student fails the oral examination without the option for a repeat examination, or if the student fails the repeated oral examination, the student is terminated from the Ph.D. program. Requests for appeal of this decision should be directed to the Graduate College.

ADVANCEMENT TO CANDIDACY

When a student passes the comprehensive examinations, s/he is advanced to doctoral candidacy by the Graduate College assuming s/he is qualified. The Graduate College checks for the following qualifications before advancing a student to doctoral candidacy: completion of coursework on the Plan of Study, successful completion of written and oral comprehensive examinations, regular graduate standing (RGS status), and appropriate graduate GPA (3.00 required for graduation). When the student is advanced to doctoral candidacy, the Graduate College assesses the graduate candidacy and (in advance) the dissertation processing and archiving fees, currently totaling \$135. Students are notified by the Graduate College when they are advanced to candidacy.

COMMITTEE APPOINTMENT FORM

Once a student has been advanced to candidacy, s/he should submit the Doctoral Dissertation Committee Appointment form via GradPath. The form should be submitted to the Graduate College at least six months prior to the dissertation defense. The Committee Appointment form informs the Graduate College of a student's expected graduation date, planned Dissertation Committee, dissertation title, and whether or not the dissertation research involves human subjects. A student whose research involves human subjects should attach a copy of the IRB approval letter/document when submitting the Committee Appointment form to the Graduate College. (If approval is pending, the Graduate College can accept evidence of approval later, but it must be submitted prior to scheduling the dissertation defense.)

Any of this information can be updated by e-mail to Graduate Degree Certification if needed. The Committee Appointment form must be approved by the Graduate College before they will schedule the dissertation defense (i.e. final oral examination). Note that approval of the Committee Appointment form depends, in part, on the validity of the Dissertation Committee listed under Graduate College policy (<http://grad.arizona.edu/academics/program---requirements/doctor---of---philosophy/dissertation---committee>). The Graduate College also checks the planned graduation date in light of the time---to---degree policy (<http://grad.arizona.edu/academics/program---requirements/doctor---of---philosophy/time---limitation>); a student who needs extra time to complete the program will make the request by way of a Graduate Petition.

STAGES FOR DISSERTATION

The dissertation demonstrates the ability to conduct original research on a significant topic. It should contribute new knowledge to the discipline of Family and Consumer Sciences and is chosen in consultation with the student's major advisor. The dissertation proposal and the completed dissertation must be defended before the student's Dissertation Committee. Additionally, all doctoral students are expected to present their final dissertation results to the public just prior to their oral defense. **Students may not defend their dissertation proposals until written and oral comprehensive examinations have been passed.**

Dissertation Proposal

After passing the oral comprehensive examination, students submit a dissertation proposal to the major advisor and Dissertation Committee members; it is expected that the dissertation proposal will be completed within six months of passing the oral comprehensive examination. Students are required to submit the dissertation proposal to the committee for review at least two weeks prior to the proposal

defense date.

The dissertation proposal should contain:

1. A statement of the research question(s) to be investigated;
2. A discussion of the methods and plan of analysis;
3. A review of the previous literature (theoretical, methodological, and substantive area) from which the dissertation problem emerges; and
4. A statement of how the research will contribute to the chosen field of study.

The format of the dissertation proposal is determined in consultation with the major advisor and members of the Dissertation Committee, and may depend in part on the decision about the format for the dissertation (see below). Suggested formats for the dissertation proposal include (but are not limited to):

- “The first three chapters” dissertation proposal consists of detailed “chapters” for what will eventually be a dissertation in traditional format, including an introduction, comprehensive literature review, and detailed discussion of methodology and plan of analysis. The intent with this format is that the “first half” of the dissertation is literally complete at the time that the dissertation proposal is approved.
- A “grant proposal” dissertation proposal is shorter and follows National Institutes of Health (NIH) or National Science Foundation (NSF) dissertation grant formats (e.g., 15 single-spaced pages, excluding references, including all of the information outlined above). This format does not presume a fully comprehensive review of all relevant literatures, but should clearly outline the research questions, methods, and plan of analysis that will be used in the dissertation project.
- The “multiple paper option proposal” includes an overarching review of the research literature that integrates the multiple manuscripts that will comprise the dissertation, along with an introduction, description of methods, and proposed data analyses for each of the proposed studies. The proposed studies should be described separately.

The dissertation proposal should be considered a contract between the candidate for the Ph.D. and the Dissertation Committee. Therefore, it is imperative that the dissertation proposal clearly outlines the goals and objectives of the dissertation project so as to remove ambiguity about the scope and scale of the work that is proposed to meet the dissertation requirement.

Upon approval by the Dissertation Committee, a memorandum should be submitted by the Dissertation Committee chair via email to the Graduate Coordinator indicating the completion of the dissertation proposal. At this point the student is officially considered to be “ABD” (all but dissertation).

Dissertation Format

In consultation with the major advisor and the Dissertation Committee, students may choose between a traditional dissertation format and a multiple manuscripts format for the dissertation. In selecting a dissertation format, major advisors and Dissertation Committee members are encouraged to discuss the relative benefits and limitations of the two formats in the context of the student’s research area and professional goals.

The *traditional dissertation format* customarily includes a conceptual framework for the study; a comprehensive review of related literature; a detailed description of the study methods; a presentation of study findings; and a thorough discussion of the study findings, limitations, and areas for future research.

The requirements for the *multiple manuscript format* will be determined by the Dissertation Committee following the guidelines below:

- The multiple manuscripts dissertation will include at least two, but typically three article manuscripts.
- The manuscripts will include empirical analyses. Committees may choose to allow students to include one non-empirical article (e.g. a conceptual analysis of a literature, etc.).
- The manuscripts should be conceptually related (e.g., in content, theoretical orientation, etc.) and together should define the student's area of expertise.
- The dissertation will also include an introductory chapter that conceptually frames the manuscripts, as well as a concluding second chapter that synthesizes the articles included in the appendices.
- Students may not use manuscripts that have been used to meet other requirements of the student's graduate program (e.g., master theses, comprehensive exam papers), although extensively reworked and extended versions may be considered for inclusion with Dissertation Committee approval.
- Students may include published as well as unpublished manuscripts, pending approval by the Dissertation Committee. While acknowledging that research is most often a collaborative process, students must be the first author on each manuscript included in the dissertation. Please see the APA 6th Edition Style manual for guidelines concerning manuscript authorship.
- Manuscripts must be written while the student is enrolled in the graduate program.

To be accepted by the Graduate College, the final dissertation document must conform to guidelines specified in the *Manual for Theses and Dissertations*. These requirements can be found online at the Graduate College website at <http://grad.arizona.edu/academics/degree---certification/diss---theses/manuals>.

Upon approval of the final draft of the completed dissertation by the Dissertation Committee, the student may schedule the final oral examination following Graduate College guidelines. Students are required to submit the final dissertation to the committee for review at least two weeks prior to the oral defense date. If that timeline is not met, the committee may request the meeting to be rescheduled. The time and location is scheduled with the Graduate Degree Certification Office at least seven working days in advance using the Announcement of Final Oral Examination form, and announced publicly. Following a public presentation of the dissertation, the final examination is closed to the public.

Dissertation Defense

The final examination is an oral defense of all elements of the dissertation, and it may include any general questions from the committee related to the broader field of Family Studies and Human Development. By this time, all elements of the program must have been completed, except for the final acceptance of the dissertation document. This means no incomplete grades and unfinished coursework. Be sure that all members of your committee will be available for your scheduled defense. In an emergency (usually the serious illness of a faculty member), a member substitution can be approved for your defense, but this is undesirable. Dissertation defenses should be conducted in the summer only as a last resort, and members of your committee have a right to refuse to be available for summer defenses, or for defenses during sabbatical leaves. (It is possible, by arrangement with the Graduate College, for a committee member to participate in the defense remotely via video or telephone conference.)

A dissertation defense should be a stimulating experience. Prepare a well-executed lecture (illustrations are encouraged), and feel free to invite your friends and family to your public presentation. The public lecture is followed by a closed-door (committee and you only) exam lasting 1-2 hours at the most. When scheduling locations for your defense, be aware that you need to reserve a room. The defense is formally scheduled by submitting the Announcement of Final Oral Examination form to the Graduate College. The Announcement should be submitted to the Graduate College Degree Certification office no later than 7 working days prior to the defense. The Graduate College will place a notice on the University's master

calendar (Lo Que Pasa) inviting the public to attend the presentation portion of the defense.

All members of your Dissertation Committee (a minimum of 3 per Graduate College requirements) participating in the exam must approve this form. Do not ask members of your committee to approve this form if they have not received revised drafts of all chapters of the dissertation. If the Dissertation Committee is composed of only 3 members, all of them must attend and approve (vote to pass) the defense and dissertation. If the committee includes 4 or 5 members, one may be a special member, and all must attend the defense; the student can still pass if one member of the committee abstains or votes to fail the dissertation. Note that regardless of who may have advised the student during preparation of the dissertation, the official Dissertation Committee (as recorded by the Graduate College, as well as with the archived dissertation) comprises those members who attend and administer the final oral examination.

After the exam, your major advisor returns the exam report, called the "Notice of Completion" form, along with a "Grade Change" form, to the Degree Certification Office immediately after the exam. Any additional, final revisions requested by the committee are also recorded on the form. The dissertation advisor need not sign the line on the Notice of Completion form for final approval at this time, although he/she should sign as a committee member, indicating that the examination was passed. If the committee requests dissertation revisions following the defense, they also elect whether the dissertation director(s) alone or the full committee will review the revisions and grant final approval of the dissertation.

Submitting Final Dissertation

The student makes any final corrections to the dissertation document as requested by the committee. The final version of the dissertation is due in the Graduate College well before the end of the graduating semester.

The final step a Ph.D. student takes is to submit the dissertation to the Graduate College for format review and archiving. The submission may be made electronically after the defense, once the Dissertation Committee grants final approval to the dissertation (i.e. after completion of any revisions requested at the defense). The initial dissertation submission must be made in time to meet the Graduate College deadline for the specific graduation term; deadlines are posted at <http://grad.arizona.edu/academics/degree-certification/deadlines-for-graduation>. If the submission is made after the stated deadline, the student will instead graduate in the following term and will be required to register for that term.

The University has a system of electronic submission of dissertations. This has resulted in changes in both formatting requirements and Graduate Degree Certification procedures. Details about the submission process are provided to students by the Graduate College when the defense is scheduled and are also available at <http://grad.arizona.edu/academics/degree-certification/diss-theses/format-check-process>.

The Graduate College will determine if the dissertation format is correct for submission to the University of Arizona Library and UMI/ProQuest; they will not provide copy editing, however. If the format is not correct you will have to re-submit your final copies with the changes. While meeting the submission deadline with the initial submission guarantees graduation in that term, delays in completing the submission will result in delay of the degree award, so paying attention to the guidelines is crucial. When all requirements (dissertation formatting, supporting forms for the submission, final grades, etc.) are met, the dissertation is sent to the Library and UMI/ProQuest to be archived. Fees for processing and archiving of the dissertation are charged at the time a student advances to candidacy. The only other fees that may be charged at the time the

dissertation is submitted are the copyright fee (\$65), which is assessed if the student elects to copyright the dissertation, and the fee for open access publishing (see <http://www.etsadmin.com/cgi-bin/main/resources?siteId=63#guides>, Guide 3.)

The degree is officially awarded (i.e. added to the student's official record) once (a) the graduation term has concluded, AND (b) the submission is complete, with formatting approved and supporting documents on file with the Graduate College. A student who completes the submission prior to the end of the term may request a Certificate of Completion of Degree Requirements from the Graduate College Degree Certification office. Note that summer is considered a single graduation term, so summer degrees are awarded following the end of Summer Session II.

FINANCIAL ASSISTANCE

GRADUATE ASSISTANTSHIPS

Assistantships provide part-time employment in teaching and/or research and include a waiver of non-resident tuition. Limited research and teaching positions are available and awarded on a competitive basis. Priority will be given to students who are making satisfactory academic progress towards the completion of their degree within the recommended time period. To be eligible for a FCS graduate assistantship, students must:

1. Be currently admitted to a FCS graduate degree program,
2. Enroll for a minimum of 10 units of graduate credit (audited courses are not included) while classes are in session for Fall and Spring semesters,
3. Maintain a 3.00 cumulative GPA for all UA graduate credit courses, and
4. Receive satisfactory annual evaluations.

Open Graduate Research and Teaching Assistantship (GRA & GTA) positions will be posted yearly during the spring semester (typically by mid-March). "Supplemental" postings for GRA and GTA positions will be made as they become available. Links to all "open" positions are available at http://cals.arizona.edu/fcs/fshd/graduate_assistantships. Each link will open a position description with details regarding duties, desired qualifications, and application requirements. You will be able to upload your application materials directly from that page. You are encouraged to peruse all available positions. As a general rule, applications will be due within 3 weeks of position posting (for exceptions see specific position descriptions). After submitting your application, you will be contacted by the hiring faculty member (or other contact person) regarding the status of your application.

In addition to officially posted GRA and GTA positions, students are encouraged to speak with faculty members about possible research and teaching opportunities. Faculty often receive grants, or teaching positions become available, with very little advance notice, so asking periodically about whether there are any new opportunities is encouraged. It is the responsibility of the student to seek out information about opportunities and to be proactive in securing GRA and GTA positions.

All new graduate teaching assistants, who have instructional duties or direct student contact, are required to participate in the Arizona Board of Regents' mandated two-day orientation. Please contact the Graduate Coordinator for more information on this orientation.

Sole teaching requires an earned Master's degree. Students who wish to sole or co-teach in an *online* course must have completed a teaching course or workshop that includes specific training in online instruction. Any student who wishes to assume sole teaching responsibility for an in-person course must complete

either: a) a 3-credit teaching course (e.g., A Ed 697c – Teaching College Level Agriculture and Life Sciences), OR b) a minimum of 3 pedagogy workshops (e.g., Creating a Course Syllabus) provided by the University Teaching Center (www.utc.arizona.edu). It is recommended that students complete this requirement within the first two years of the program. Students with extensive previous teaching experience may be exempt from this requirement pending approval by the Division Chair.

General Policies for FCS Graduate Assistants

All graduate assistants should treat their work assignment as a professional job and part of their graduate education. Supervisor requests should be honored and carried out in a professional manner. Graduate assistants classified as .25 FTE are expected to work 10 hours per week and as .50 FTE to work 20 hours per week. There may be weeks you will work more or less depending on your assignment, but over the term you should average the appropriate number of hours. It is recommended that you keep a record of your hours and tasks and provide a copy to your supervisor periodically. The copy machines are available for your assistantship use only and require a copy code, which should be obtained from your supervisor. All supplies needed for your assistantship should be obtained from your supervisor.

If you have concerns or complaints about your employment or your supervisor, please contact the Division Chair or the Graduate Director. If a resolution cannot be achieved, this matter will then be forwarded to the Norton School Director.

Work Guidelines for FCS Graduate Assistants

Provided in this section is a listing of typical obligations and/or duties associated with both teaching and research assistantships. This listing is provided only as a guide to responsibilities that accompany each type of assistantship and is not meant as a comprehensive listing. Specific responsibilities may differ depending on needs of supervisors.

Teaching Assistantship Obligations and/or Duties:

- Meet with faculty supervisor at a prescheduled time at least once per week to get assignments for the next week.
- Contact faculty supervisor periodically during the next week (i.e., 1-2 times) to:
 - Clarify questions about the assignment,
 - Give a progress report on the assignment, and/or
 - Obtain information on changes in the weekly assignment.
- Be familiar with the topics covered in class by:
 - Identifying periodic classes to attend related to each of the major class topics in consultation with the faculty supervisor and following the class schedule(s) distributed to students, and
 - Being available to students by maintaining one office hour per week to assist students with problems. Depending on need, you may be asked to hold additional hours prior to exams.
- Assist with grading for assignments and exams.
- Be available to assist with proctoring exams.
- Assist with research and other types of work in developing class materials and assignments.
- Assist with covering classes when faculty member is absent.
- During weeks when there is not enough work to fill your work hours with teaching--related responsibilities, you may be asked to help with research responsibilities and administrative tasks related to research. Examples of assignments can include:
 - Library work (i.e., finding articles, doing literature searches, updating table of contents of books),
 - Help with preparations for mail surveys, questionnaire development, and sampling methods.

- Help with data input, analysis, and summary, and assistance with report writing and editing.

Research Assistantship Obligations and/or Duties:

- Assist with all research--related responsibilities for current research projects (i.e., administrative tasks related to the research, supervising data collectors, development of questionnaires, preparation of mail surveys, contacting data collection sites, etc.).
- Assist with library work for current and new projects (i.e., finding articles, updating table of contents of books, conducting literature searches, abstracting articles).
- Assist with coding, data input, statistical programming and analysis, and summarizing data.
- Assist with report writing and editing.
- Assist with identifying grant and other funding opportunities and in the development of research proposals.
- Help with developing visual materials and reports for conference presentations.
- During weeks when there is not enough work to fill your work hours with research--related responsibilities, you may also be asked to help with teaching responsibilities such as assisting with grading assignments and exams, proctoring exams, developing class--related materials and assignments, etc.
- Assist with covering classes when faculty member is absent.

SCHOLARSHIPS

The Graduate Professional Development (GPD) award (formerly Cowden/Bruhn Award) is designed to facilitate graduate training and professional development during students' graduate study in the Norton School. In addition, students must work with a faculty mentor closely and will be required to enroll in 3 units of FSHD/RCSC

900 (if the professional development is more research skills development) or 3 units of FSHD/RCSC 694 (if the mentorship is more teaching skills development). Students holding a GPD award must have full--time student status and, therefore, must be registered for a minimum of 9 units. Three units of FSHD/RCSC 900 or 694 can be used toward the 9 units.

RESEARCH & TRAVEL FUNDING

Please contact your Director of Graduate Studies for details on any available funding.

GRADUATE COLLEGE FUNDING

A variety of financial resources are available from the Graduate College. Go to their website at <http://grad.arizona.edu/financial---resources> for more information on eligibility requirements and application procedures.

APPENDICES

APPENDIX A. FCS SARF FORM

APPENDIX B. FCS SARF-EVAL FORM

APPENDIX C. FSHD Degrees Checklists

APPENDIX D. Graduate Training in Applied Statistics (GTAS) course offerings.

**NORTON SCHOOL OF FAMILY AND CONSUMER SCIENCES
STUDENT ANNUAL REVIEW FORM
Fall and Spring ACADEMIC YEAR**

NAME:	YEAR ENTERED FCS:
COURSES (INCLUDING GRADES) COMPLETED DURING 2010-2011 ACADEMIC YEAR. (Please include thesis, dissertation, and supplemental units.)	
<u>Spring Semester 20XX</u>	<u>Summer Sessions 20XX</u>
<u>Fall Semester 20XX</u>	<u>Spring Semester 20XX</u>
TOTAL number of units completed to date: _____	
Major coursework: _____ Minor coursework: _____	

Research/Independent Study: _____ **Thesis:** __ __ **Dissertation:** _____

PROGRAM PROGRESS TIMELINE:	Month/Year Completed
<i>“Master’s Plan of Study” and “Change of Degree” form filed with Graduate College</i>	
<i>“Evaluation of Transfer Credit” form filed with Graduate College (if applicable)</i>	
Master’s thesis committee formed	
Master’s thesis proposal meeting held	
Master’s thesis proposal accepted	
Master’s thesis approved	
<i>“Completion of Degree Requirements” for Masters form filed with Graduate College</i>	
Pre-candidacy passed	
<i>“Doctoral Plan of Study” form filed with Graduate College</i>	
Comprehensive examination committee formed	
Comprehensive written examinations passed	
<i>“Results of Oral Comprehensive Exam for Doctoral Candidacy” form filed with Graduate College - see Grad Handbook for details; (prior to 2009 “Application for Oral Comprehensive Exam for Doctoral Candidacy” form)</i>	
Comprehensive oral examination passed	
<i>“Committee Appointment” form filed with Graduate College - see Graduate Handbook for details; (prior to 2009 “Advancement to Candidacy” form)</i>	
Dissertation proposal accepted	
<i>“Announcement of Final Oral Examination” form filed with Graduate College (by one week before oral examination)</i>	
Dissertation defense passed	
Celebration!	

PLEASE BRIEFLY DESCRIBE:

- **GOALS FOR THE UPCOMING ACADEMIC YEAR (Please be specific)**

- **CAREER GOALS**

Please (a) include the information requested below by making entries in this form, and (b) prepare an updated copy of your CV.

May 20XX through May 20XX:

- 1. RESEARCH AND TEACHING ASSISTANTSHIPS**
 - a) Research Assistantships (Please include name of professor, percentage of appointment, whether it is a formal or informal assistantship and responsibilities)*
 - b) Teaching Assistantships (Please include name of course, semester, and professor you worked with or who supervised your teaching)*
 - c) Guest Lectures (Please include name of course and topic of lecture)*

- 2. PUBLICATIONS IN PROGRESS, SUBMITTED, ACCEPTED/IN-PRESS, PUBLISHED**
 Include refereed journal articles, book chapters, and extension publications.
In brackets at the end of each entry/citation, please note what the status of each “publication” was in last year’s SARF; for example, at the end of a current “accepted/in-press” publication you might note [last year = submitted].

- 3. CONFERENCE PRESENTATIONS (Include presentations and submissions)**

- 4. OUTREACH ACTIVITIES**

5. PROFESSIONAL DEVELOPMENT

- a) Conferences attended*
- b) Professional organizations to which you belong*
- c) Citizenship (committee memberships, journal reviewing, etc.; both intramural and extramural)*
- d) Honors and awards received*
- e) Other relevant activities or accomplishments*
- f) Related employment*

ANYTHING ELSE YOU WOULD LIKE US TO KNOW (e.g., problems or unanticipated events affecting your activities during the year)

NORTON SCHOOL OF FAMILY AND CONSUMER SCIENCES
Graduate Student Annual Review
Evaluation Form

Section 1: Student completes before distributing to faculty member

Name of faculty member: _____

Name of student: _____

Student year in program: _____

Student anticipated graduation (semester & year): _____

Faculty role in Academic Year (check all that apply):

- First year advisor
- Major advisor
- Minor advisor
- Committee member (Master's Comps Dissertation)
- RA supervisor
- TA supervisor
- Other (specify): _____

Section 2: Faculty Review

Instructions:

For each area, please...

- I. Indicate basis of evaluation:
- 1 = Information only from submitted materials
 - 2 = Small amount of contact with student
 - 3 = Considerable amount of contact with student

- II. Rate student using the following metric:
- 4 = Excels in area
 - 3.5
 - 3 = Progress at appropriate level
 - 2.5
 - 2 = Minor concerns
 - 1.5
 - 1 = Major concerns

- III. Provide concrete descriptions of student progress in each area, specific comments on concerns, and relevant recommendations.

	Basis of evaluation	Rating	Comments
Coursework / program progress (e.g., courses, masters / comps / dissertation progress)	1 2 3	1.0 1.5 2.0 2.5 3.0 3.5 4.0	
Research Activities (e.g., research assistantships, conference presentations, publications)	1 2 3	1.0 1.5 2.0 2.5 3.0 3.5 4.0	
Professional Development (e.g., attending workshop or conferences, internal or external service, coursework beyond requirements, other)	1 2 3	1.0 1.5 2.0 2.5 3.0 3.5 4.0	
Teaching Activities (e.g., teaching assistantships, sole teaching, guest lectures, attendance of instructional training)	1 2 3	1.0 1.5 2.0 2.5 3.0 3.5 4.0	
Overall Development (note: based on student's career goals – not necessarily average of 4 areas)	1 2 3	1.0 1.5 2.0 2.5 3.0 3.5 4.0	

Family Studies & Human Development

Graduate Course Checklist – MS Degree Requirements

Theory: 2 Courses/6 Units

If all 3 are taken, 1 can be counted as a “Topics in Core Areas” course

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD546	3	
FSHD567	3	
FSHD563	3	

Research Methods & Statistics: 5 Courses/13 Units

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD507A	3	
FSHD507B	3	
FSHD537A	3	
FSHD537L	1	
FSHD537B	3	

Topics in Core Areas of Family Studies & Human Development: 2 Courses/6 Units

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD601	3	
FSHD602	3	
FSHD603	3	
FSHD604	3	
FSHD605	3	
FSHD607	3	
Classes in the student’s substantive area of focus at an equivalent level offered in another academic program	3	

Professional Development: Workshops

A series of professional development workshops will be held during the first year of the program and are required for new students, although they do not count for academic credit
--

Research: 2 Courses/6 units

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD910 with major advisor	3	
FSHD910 with major advisor	3	

Family Studies & Human Development
Graduate Course Checklist – Ph.D. Requirements

Theory: 2 Courses/6 Units

If all 3 are taken, 1 can be counted as a “Topics in Core Areas” course

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD546	3	
FSHD567	3	
FSHD563	3	

Research Methods & Statistics: 6 Courses/16 Units

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD507A	3	
FSHD507B	3	
FSHD537A	3	
FSHD537L	1	
FSHD537B	3	
One additional approved research methods course (e.g., advanced multivariate statistics; qualitative research methods; mixed methods)	3	

Topics in Core Areas of Family Studies & Human Development: 3 Courses/9 Units

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD601	3	
FSHD602	3	
FSHD603	3	
FSHD604	3	
FSHD605	3	
FSHD607	3	
Classes in the student’s substantive area of focus at an equivalent level offered in another academic program		

Minor: 3 – 4 Courses/ 9 – 12 Units

Typical emphasis areas include COMM, PSY, ED P, SOC, and ANTHRO. Students may also opt for a FCS Thematic Minor

<i>Course</i>	<i>Units</i>	<i>Completed</i>
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	3	
	3	
	3	
	3	

Professional Development: Workshops

A series of professional development workshops will be held during the first year of the program and are required for new students, although they do not count for academic credit

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD 696Z	3	

Independent Study for Comprehensive Examination: 1 Course/3 – 8 Units

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD799A with major advisor		
FSHD799A with major advisor		
FSHD799A with major advisor		

Research: 18 units

<i>Course</i>	<i>Units</i>	<i>Completed</i>
FSHD920 with major advisor		

Graduate Training in Applied Statistics (GTAS)

Graduate students quickly learn that success in research requires a solid understanding of statistics. Additionally, advanced statistical expertise often gives graduate students an advantage on the job market. There are many statistics courses offered at the University of Arizona, but given the size of the University, it is easy to get overwhelmed with options, not knowing whether a graduate course in statistics is too advanced or too basic. The goal of this website is to help students find courses in statistics that meet their research goals and that are a good fit to their background.

Each participating academic program has its own course requirements, so please check the Graduate Handbook for your department and speak to your academic advisor before registering for classes. An overview of available classes, including when they are generally offered, is provided below (see “Course Overview”). More detailed descriptions are provided under “Course Descriptions”. The instructors of the courses listed below have discussed the content covered in each course and developed class sequences that are optimal for different students, depending upon your previous training in quantitative research methods (see “Suggested Course Sequences”). Additional intermediate and advanced classes should be chosen based on your research area and interests.

Course Overview

Note: The following list refers to courses taught during the academic year. In some cases, an alternate version of a class may be offered during the summer, but those may differ in the content and software from that listed here.

Course #	Topics	Software	Offered
<i>Introductory & Intermediate</i>			
EDP 541	Descriptive statistics, hypothesis testing, <i>t</i> -tests, ANOVA, correlation, simple regression, chi-square	R	Every Fall
PSYC 510	Descriptive statistics, hypothesis testing, probability, distributions, <i>t</i> -test, chi-square, ANOVA, regression, non-parametric tests, emphasizes working with real data from your own research	R	Every Fall
FSHD 537A	Hypothesis testing and Bayesian inference, model selection and cross validation, general linear model including <i>t</i> -test, ANOVA, correlation, multiple regression, logistic regression, repeated measures, multivariate models	R	Every Fall
EDP 641	Multiple regression, logistic regression, intro to multilevel models (a.k.a. hierarchical linear modeling), emphasis on nesting of students w/in classes	R	Every Spring
FSHD 537B	Missing data, mediation, moderation, person-centered analyses	Mplus & R	Every Spring
PSYC 507A/597A	Philosophy of science, continuous parameter estimation, general linear model including ANOVA, correlation, multiple regression, mixed GLMs	UniMult 2	Every Spring

ANTH 595D	Approximately equal attention to [1] R programming (2) data visualization, and (3) statistical procedures using R. Statistical modeling includes t-tests, ANOVA, linear regression, multiple regression, mixed-models, clustering and dimension reduction.	R	Every Fall
<i>Advanced</i>			
EDP 646a	Matrix algebra, eigenvalue decomposition, T ² , MANOVA, discriminant, canonical correlations, PCA, EFA, CFA	R	Every Fall
FSHD 617C	Multilevel modeling (a.k.a. hierarchical linear modeling), emphasis on occasions nested w/in people, error structures, dyads, traditional maximum likelihood and Bayesian approaches	R	Fall even years
FSHD 617A	Confirmatory Factor Analysis, Structural Equation Modeling, measurement invariance, latent mediation/moderation, latent APIMs, growth curves	Mplus & R	Fall odd years
EDP 558	Classical Test Theory, Generalizability Theory, Item Response Theory	jMetrik & R	Spring even years

Course Descriptions

Introductory / Intermediate

EDP 541: Introductory Statistics in Education

This is a great first class if you have little or no prior training in quantitative research, or you've taken classes before but didn't feel like you understood them, or you are nervous about statistics. It covers all the basics and moves a little slower than the other introductory classes, but it still provides the foundation you will need to advance to intermediate classes (e.g., sampling distributions, logic behind null hypothesis significance testing, statistical vs. practical significance). The course is taught using the R Statistical Computing platform and you will learn the basics you need to use it for data analysis.

PSYC 510: Statistics Fundamentals

This is a great first class if you've taken one or two statistics classes and sort of understood them. The class emphasizes working with your own data right from the beginning. It covers the logic of statistical inference and hypothesis testing, as well as all the fundamentals, such as descriptive statistics, data transformation, t-tests, regression, ANOVA, and non-parametric tests, such as chi-square, Wilcoxon and Kruskal Wallis tests. The course is taught using the R Statistical Computing platform, and you will learn both basic and more advanced skills for data analysis and visualization.

FSHD537A/L: Introduction to Statistical Analysis

This is a great first or second class if you've taken one or two statistics classes and think you understood them. The class covers both traditional Null Hypothesis Significance Testing (NHST) and Bayesian inference, as well as model selection. It emphasizes the general linear model, which includes all the fundamentals (t-test, ANOVA, correlation, multiple regression) and a few more advanced topics (logistic regression, repeated measures and multivariate models). The course is taught using the R

Statistical Computing platform and you will learn both basic and more advanced skills for data analysis.

ANTH 595D: R programming for data visualization and analysis

This is a great first or second class. It is unlike a traditional statistics course in that it focuses roughly equally on learning the R programming language, developing data visualization skills, and implementing statistical models in R. The programming part of the course introduces the R environment and skills related to reading/writing data, functions, control structures, data tidying and data manipulation/aggregation. The data visualization part of the course focuses on effective methods for conveying information through statistical graphics. It introduces the primary graphics systems in R, with a focus on the grammar of graphics and the ggplot2 package. The data analysis portion of the course covers a variety of statistical models at a conceptual level (little to no math) and includes: t-tests, ANOVA, bivariate linear regression, multiple regression, mixed models, and a brief overview of dimension reduction and clustering techniques.

EDP 641: Selected Applications of Statistical Methods

Advanced Linear Models. This is a great second or third class for most people. The class covers multiple regression, logistic regression and introduces multilevel models (a.k.a. hierarchical linear models) with a focus on individuals (e.g., students) nested in groups (e.g., classrooms). The course is taught using the R Statistical Computing platform and you will learn both basic and more advanced skills for data analysis.

FSDH 537B: Intermediate Statistics

This is a great second or third class for most people. The class covers mediation, moderation, missing data handling and introduces person-centered analyses. The course is taught using MPlus and R.

PSYC 507A/597A: Statistical Methods in Psychological Research

This is a great second or third class if you would like to get a better grasp of the “big picture” and the concepts underlying statistical methods. The class covers the philosophy, history and methodology of science, as well as all the fundamentals, such as correlation, ANOVA and regression models. It also introduces the Continuous Parameter Estimation Method and its use with the UniMult2 software package.

Advanced

EDP 646A: Applied Multivariate Statistics in Education

This is a great advanced class if you would like to develop an understanding of matrix algebra and apply it to multivariate analyses. Topics covered include Hotelling’s T-squared, MANOVA, discriminant analysis, canonical correlation, scale development (including PCA, EFA, & CFA), and cluster analysis. The course is taught using R.

FSDH 617C: Multilevel Modeling

This is a great advanced class if your research interests include longitudinal or time-varying processes. The course provides a complete introduction to multilevel modeling (a.k.a. hierarchical linear models), with an emphasis on time nested within individuals, who may also be nested within larger social units such as dyads. Both traditional maximum likelihood and Bayesian approaches are included. The course is taught using R.

FSDH 617A: Structural Equation Modeling

This is a great advanced class for most people, since structural equation models (SEM) are used across many different research domains. The course provides a complete introduction to SEM, including confirmatory factor analysis, mean and covariance models, mediation/moderation and latent growth

curves. The course is taught using Mplus, with students having the option of using R instead.

EDP 558: Tests & Measurements

Measurement theory. This course is appropriate at an intermediate and/or advanced level, and is best for individuals with heavy measurement interests (e.g., How much error is in scores we get from a test or measure? What sources of measurement error are present and how substantial are they? How well do items match the ability levels of people in the sample? Do Likert categories function the way we expect them to?). The course covers three theories of measurement: Classical Test Theory (heavy focus on reliability), Generalizability Theory, and Item Response Theory. Each theory includes one or more analyses for test scores as well. Knowledge of ANOVA, correlation, and covariance is assumed.

Suggested Course Sequences

No Statistics Background

EDP 541 → FSHD 537A or PSYC 510 or EDP 641 → any advanced courses (EDP 646a, FSHD 617C, FSHD 617A, EDP 558, PSY507A)

Basic Statistics Background (Intro course or two in undergrad or previous grad program)

FSHD 537A or PSYC 510 → EDP 641 or FSHD 537B or FSHD 617C → any advanced courses (EDP 646a, FSHD 617C, FSHD 617A, EDP 558, PSY507A)

Strong Statistics Background (Coming in with multiple courses)

FSHD 537A or PSYC 510 or EDP 641 → FSHD 537B or any advanced courses (EDP 646a, FSHD 617C, FSHD 617A, EDP 558, PSY507A)

Suggested Advanced Courses Based on Research Focus

Individual Differences/Longitudinal Data Analysis - EDP 641, EDP 646a, FSHD 537B, FSHD 617A, FSHD 617C

Measurement/Psychometrics/Latent Variables - EDP 558, EDP 646a, FSHD 617A