HUMAN FACTORS
&
COGNITIVE PSYCHOLOGY
DOCTORAL PROGRAM
HANDBOOK

Academic Year: 2021-2022

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Welcome

Welcome to the Human Factors and Cognitive Psychology (HFC) Ph.D. Program! You are about to embark on a great intellectual adventure, one that will be demanding but, we hope, rewarding. You will find many opportunities to self-actualize in this program. Be sure you maintain your focus on learning as much as you can about psychological theory and research, both in the classroom and especially in your laboratory research with your advisor.

Like most rigorous Ph.D. programs in psychology, the HFC program follows the apprenticeship model, in which the student is trained in the skills of research and scholarship by an advisor who works closely with him or her. Our program also follows the APA 'scientist-practitioner' model, in which the goal is to train our graduates in the science of human factors and cognitive psychology and also to train them to apply the science to improve human-technology interaction.

Like most things in life, how much you gain from graduate school varies directly with how much effort you put into it. If you work hard, remain focused on your research program with your advisor, and make the most of the opportunities in our Program, you will do well both at UCF and after graduation.

Good luck in your scholarly endeavors,

James L. Szalma, Ph.D.
Professor
Director, Human Factors and Cognitive Psychology Ph.D. Program
Department of Psychology

1. Introduction

The UCF Graduate Catalog is the University's official record of graduate policies. In any case where this handbook appears to disagree with the Graduate Catalog, the Graduate Catalog is the final authority. The Graduate Catalog may be accessed via the UCF website at:

http://www.graduatecatalog.ucf.edu/

About Human Factors & Cognitive Psychology

The fields of Applied Experimental Psychology, Human Factors, and Ergonomics adopt a multidisciplinary approach to the study of the interaction between humans and the environment, including systems, products, people, and procedures. Human Factors, as one of the core disciplines of the track, is a science that adds the human into the equation to make life easier, safer, and more enjoyable by applying psychological theory and research to human-centered design. A well-known Human Factors textbook describes the field in the following quotation.

> *"Human factors is the application of scientific knowledge and principles to the design of products, systems, and/or environments. The goal of human factors is making the human interaction with systems one that: reduces error, increases productivity, enhances safety, and enhances comfort. Human Factors then involves the study of factors and development of tools that facilitate the achievement of these goals"* (Wickens, Gordon, and Liu, 1998, p. 2).

As scientific disciplines, Human Factors and Cognitive Psychology overlap with areas such as Engineering Psychology, Social Psychology, Cognitive Psychology, Industrial/ Organizational Psychology, Cognitive Engineering, Ergonomics, and Industrial Engineering. Human Factors researchers and practitioners work in areas such as automation, cognition, decision-making, display processing, human-computer interaction, physiology, safety and human error, sensation and perception, sensory systems, stress, workload, training, transportation, and workspace design.

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Additional Student Resources

- UCF Graduate Catalog http://www.graduatecatalog.ucf.edu/
- COS Graduate Website for Students http://graduate.cos.ucf.edu
- UCF Graduate Website for Students http://www.graduate.ucf.edu
- Academic Calendar: https://calendar.ucf.edu/
- Library http://library.ucf.edu/
- Graduate Student Association http://www.gsa.graduate.ucf.edu/
- University Writing Center http://www.uwc.ucf.edu/
- The Counseling Center http://counseling.sdes.ucf.edu/

2. Mission Statement

A Ph.D. professional degree track in Human Factors & Cognitive (HFC) Psychology is offered to those with a baccalaureate or master's degree in psychology or an allied area. The track seeks to develop the capacity to design, conduct, and apply applied experimental and human factors research in a variety of professional settings. It is patterned on the scientist-practitioner model of the American Psychological Association (APA) and adheres to guidelines established by the committee for Education and Training of APA's Division 21 (Applied Experimental and Engineering Psychology). The track has been accredited by the Human Factors and Ergonomics Society (HFES).

Students receive training in the content and techniques of human factors psychology-including statistical and quantitative procedures, experimental design, survey methods, computer techniques, and other research methodologies. Students also select a concentration area, which they complete as part of their required elective coursework. Examples include human-computer interaction, human-machine-environment interface, human performance, human factors in simulation and training, cognitive neuroscience, or other areas of interest with advisor authorization. In addition to the course requirements students must demonstrate their knowledge and skills by completing the five competency domains. Finally, a dissertation representing a significant research contribution to the field is required.

Consistent with the Department's Mission Statement, the HFC Doctoral Program's overall goals are to:

1) Train and educate leaders in Psychology at the doctoral level within the scientist-practitioner tradition
2) Facilitate the exploration and understanding of the complexity of human behavior while expanding our collective knowledge base through multiple avenues (e.g., publications in scientific journals, conference presentations, teaching)
3) Strive to improve the health and quality of life of individuals through excellence in education as well as in research and practice in human-technology interaction.

The overall philosophy that drives these goals is embodied in the policy statement that emerged from the National Conference on Scientist-Practitioner Education and Training for the Professional Practice of Psychology held in Gainesville, Florida on January 16-20, 1990. The training model of the HFC Doctoral Program reflects our efforts to educate students so that they can advance psychological knowledge through research and scholarship, and to evaluate the impact of training regimens and interface designs using empirically derived methods and procedures. The model also strives to help students learn how to think critically and scientifically about problems while invoking the highest standards of ethical and professional conduct. The overall philosophy of the training program is consistent with that of the Mission Statement of the Department, the College of Sciences, the Graduate School, and the University (http://www.ucf.edu/mission/).

3. Advising and Mentoring

Each student entering the HFC program will be assigned an advisor who will supervise the student's research activities and serve as a mentor to the student. Students are assigned to an advisor based on program fit and research interests. A formal relationship with an advisor must

be established by the end of the first semester in the program by completing a form signed by both the student and the advisor. Subsequent changes in advisors must be accomplished by filing a petition with the Program Committee (see below). The performance of each graduate student will be evaluated annually at the beginning of the Fall semester by his/her advisor and discussed among the HFC faculty. The purpose for these evaluations is to identify areas of strength and accomplishments as well as those skills in need of further development. Students are expected to meet with their academic advisor on a regular basis to discuss their academic and professional progress.

Expectations of Doctoral Students

Graduates of the program are expected to demonstrate specific competencies in research and practice that prepare them to function independently in a variety of roles and settings relevant to the practice of HFC. Graduates are expected to independently generate new knowledge and contribute to extant knowledge in psychology through publication and presentation of original research. They also are expected to be erudite consumers of psychological and psychologically related research findings, and to have the skills to utilize this knowledge and future research findings when they become human factors professionals.

For general policies regarding students' responsibilities, please see the section titled, 'Student's Responsibility' in the Graduate Catalog, located under General Policies, at: https://www.ucf.edu/catalog/graduate/#/home > Policies > General Graduate Policies > Student Responsibilities.

Changing Academic Advisors

Students are assigned an advisor upon admission to the program. In rare instances, students may wish to change their advisor. If a student wishes to change his/her faculty advisor, the student must submit a written petition to the Program Committee indicating the reason for requesting the change. An advisor may also initiate the process. Ideally, the student should discuss this first with his/her advisor, and with the Program Director. Note that tuition waivers allocated to the program are allocated to the faculty member, not the student. Hence, both the student's advisor and the prospective advisor need to approve, and the prospective advisor must have a waiver to allocate to the student or another source of funding for the student (e.g., a grant). Hence, prior to submission to the Program Committee, the student needs to obtain the signatures of his/her current advisor AND the faculty member who would serve as the new advisor. The HFC Program Committee may not consider the petition if both the current and prospective advisors have approved it. A student may not submit such a petition more than one time per academic year.

4. Degree Requirements

Students are required to meet with the program assistant within the first two weeks of each semester to confirm that their status and progress in the program is documented accurately. This includes verifying the accuracy of their competency binder as well as the progress of ABD students toward completion of their dissertation. Note that students are responsible for ensuring that their competency binders are accurate and up to date.

A. Course Requirements

The Ph.D. is designed to be obtained in 5 years of full-time study from the baccalaureate level and in 3 years from the master's level. (A minimum of one-year full-time student status is required.) For students who enter with a baccalaureate degree, the program requires a minimum of 75 credit hours. Students who enter with a master's degree will be granted up to 30 hours of transfer credit with approval of the program faculty and will also be required to complete a minimum of 60 credit hours at UCF.

Doctoral Program in Human Factors & Cognitive Psychology Required Courses

Total Hours Required for Ph.D. — 75 credit hours

Required Courses—42 Credit Hours

- EXP 5256 Human Factors I (3 credit hours)
- EXP 6257 Human Factors II (3 credit hours)
- EXP 6258 Human Factors III (3 credit hours)
- EXP 5208 Sensation and Perception (3 credit hours)
- EXP 6116 Visual Performance (3 credit hours)
- EXP 6255 Human Performance (3 credit hours)
- EXP 6506 Human Cognition and Learning (3 credit hours)
- EXP 6541 Advanced Human-Computer Interaction (3 credit hours)
- INP 7089 Human Factors Professional Issues (3 credit hour)
- Either PSB 6328 Psychophysiology (3 credit hours) or PSB 6348 The Neuroanatomical Basis of Psychological Function (3 credit hours)
- PSY 7217C Advanced Research Methodology I (4 credit hours)
- PSY 7218C Advanced Research Methodology II (4 credit hours)
- PSY 7219C Advanced Research Methods III (4 credit hours)

Students are required to achieve a minimum grade of B- in each core curriculum course. Students who take PSB 6328 and PSB 6348 must achieve a minimum grade of B- in *both* courses. If students earn a C+ or lower in any core curriculum course, they will be placed on academic probation, and they may be required to retake the course or to complete remedial work required by the HFC committee in consultation with the student's advisor. If students earn a C+ or lower in two or more core curriculum courses they will be subject to immediate review by the Program Committee and may be dismissed from the program. It is anticipated that in most cases earning a C+ or lower in two core curriculum courses will result in dismissal from the program.

Electives—18 Credit Hours

Students should choose electives in concentrated course groupings: for example, human-machine systems, performance measurement and evaluation, simulation and training, or quantitative methods. Other elective course groupings may be developed for the student's specific interests. Students may choose to satisfy these elective requirements by taking courses outside the Psychology Department that can serve their multidisciplinary needs. Courses outside of the Department that have already been approved as electives are contained in the list below. A student who wishes to use courses that are not included on this list may seek approval by petitioning the HFC Faculty Committee through their academic advisor. Students may take up to

(12) credit hours of Directed Research, however, it is highly recommended that they take elective courses that are related to their discipline from other graduate programs or departments at UCF. Electives may include but are not limited to the following:

- CAP 5610 Machine Learning (3 credit hours)
- CAP 6315 Social Media and Network Analysis (3 credit hours)
- DEP 5057 Developmental Psychology (3 credit hours) (Spring Only)
- DIG 5876 Quantitative Aspects of Modeling and Simulation (3 credit hours)
- DIG 6432 Transmedia Story Creation (3 credit hours) (Fall, Summer)
- EIN 5248C Ergonomics (3 credit hours)
- EIN 5251 Usability Engineering (3 credit hours)
- EIN 5255 Interactive Simulation (3 credit hours) (Spring only)
- EIN 6258 Human Computer Interaction (3 credit hours)
- EIN 6370 Innovation in Engineering Design (3 credit hours)
- EME 6613 Instructional System Design (3 credit hours) (Occasional)
- EME 6614 Instructional Game Design for Training and Education (3 credit hours)
- ESI 6247 Experimental Design and Taguchi Methods (3 credit hours)
- EXP 5254 Human Factors and Aging (3 credit hours) (Fall Only)
- EXP 6939 Teaching Seminar (3 credit hours)
- IDS 6916 Simulation Research Methods and Practicum (3 credit hours)
- IDS 6146 Modeling and Simulation Systems
- IDS 6147 Perspectives on Modeling and Simulation (3 credit hours) (Fall only)
  - May be substituted by: DIG 5875C Introduction to Modeling & Simulation (3 credit hours) (Summer only)
- IDS 6148 Human Systems Integration for Modeling and Simulation
- IDS 6149 Modeling and Simulation for Test and Evaluation
- INP 5825 Human-Computer Interface (HCI) Design: A Team Approach (3 credit hours)
- INP 7310 Organizational Psychology I (3 credit hours)
- PPE 5055 Personality Theories (3 credit hours)
- PSB 6328 Psychophysiology (3 credit hours)
- PSB 6348 The Neuroanatomical Basis of Psychological Function (3 credit hours)
- PSB 6352 Neuroimaging Design and Analysis Methods (3 credit hours)
- PSB 7349 Advanced Topics in Cognitive Neuroscience (3 credit hours)
- PSY 5605 History & Systems of Psychology (3 credit hours)
- SOP 5059 Advanced Social Psychology (3 credit hours)
- STA 5703 Data Mining Methodology I (3 credit hours)
- STA 6704 Data Mining Methodology II (3 credit hours)

Concentration in Cognitive Neuroscience – 12 Credit Hours

The Cognitive Neuroscience concentration required the following four course and two elective courses (6 credits).
- PSB 6328 Psychophysiology (3 credit hours)
- PSB 6348 The Neuroanatomical Basis of Psychological Function (3 credit hours)
- PSB 6352 Neuroimaging Design and Analysis Methods (3 credit hours)
- PSB 7349 Advanced Topics in Cognitive Neuroscience (3 credit hours)
- Select 6 hours from the Restricted Elective options above.
  ***Note that admission to these courses is not guaranteed, but is contingent on the decision of the department, college, and instructor of record for the course.

A student who elects to complete the concentration must achieve a minimum grade of B- in each course.

Doctoral Dissertation – 15 Credit Hours

- PSY 7980 Doctoral Dissertation (15 credit hours)

B. Competency Requirements

Purpose

The purpose of the competency requirements is to develop and assess competency of professional behaviors in doctoral-level graduate students in the Human Factors & Cognitive Psychology program that are consistent with the program's professional training goals. These goals include but are not limited to the development and demonstration of skills and abilities that enable graduating students to (1) competently engage in research; and (2) competently serve as innovative teachers/instructors in colleges and universities, and as presenters at local, regional, national, and international professional conferences.

Competency requirements are detailed below and involve the completion of five professional activities to satisfy two competency domains.

Table 1. Professional Activity/Competency Requirements

Domain 1: Research	Domain 2: Teaching/Professional Presentations

1)Published/Publishable Article (1st author)
    Deadline: End of sixth semester in Program (excluding summers).
2)First-Year Project
    Deadlines:
        Manuscript: Two weeks after the start date of the first semester of the second year.
        Presentation: Approximately two weeks after submission of the manuscript.
3)Second-Year Project
    Deadlines:
        Manuscript: Two weeks after the start date of the first semester of the third year.
        Presentation: By the end of the spring semester of the third year in the program.
 	
4)Literature Review
    Deadline: End of the second semester of the third year in the program.
	a. Instructor Experience in teaching an undergraduate course, **or**
	b. Professional Presentations
	Deadline: End of sixth semester in Program (excluding summers).

Requirements, Rationale and Objectives

Successful completion of the competency requirements reflect the Program's desire to insure overall breadth of training in the field of Human Factors & Cognitive psychology that are complemented by individually tailored professional training experiences and competencies consistent with a student's professional career goals. The two professional domains outlined above (and detailed in the subsequent sections) are consistent with this intent. Students are required to complete all domains as well as required coursework (including electives) to be eligible for doctoral candidacy. The student must meet all domain requirements during his or her enrollment in the UCF HFC Ph.D. program. Students may petition the HFC Faculty Program Committee for extensions to a deadline when appropriate. Work completed outside the program will not be considered for domain completion.

> ### *Research Domain*
>
> ### 1. Published/Publishable Article

Students are required to submit an article to a refereed journal and receive feedback on the manuscript. Students must be first or solo author on empirical research that is either published or publishable in a peer- reviewed journal. If the student does not receive word on journal submission by 8 weeks **or** if article is rejected, the faculty program committee will review the student's work and determine if it fulfills the requirement.

Fulfillment of this component is intended to (a) complement the student's graduate level course work in research methods, design, statistics, and on-going research practica, (b) hone conceptual and professional writing skills related to publishing findings in scholarly journals, (c) encourage students to submit completed scholarly works to journals for peer review, and (d) provide students with the opportunity to receive and react to comments offered by professional journal reviewers. Student must complete research and article while enrolled in the HFC Program. The student must report receipt of the peer review and complete and submit all forms for inclusion in their portfolio within thirty (30) days of receiving feedback from the journal. The student must also inform his/her advisor, the Program Assistant, and the Program Director each time an activity is added to his/her Competency portfolio. Failure to meet the thirty-day deadline will result in disqualification of the manuscript for satisfying this competency. The manuscript and editorial response may be reviewed by the HFC committee to determine whether the student has satisfied this requirement.

> ### 2. First Year Project

In the first year, all students must do a laboratory research project (the First Year Project) that includes at least one empirical study. The project must be approved and will be supervised by the student's advisor. Students must submit a paragraph in a Word document to the program director and program assistant that describes 1) what they intend to investigate (e.g., "I will be investigating the effects of X and Y on Z and W."); and 2) what their contribution to the project will be (e.g., conceptualization, development of the tasks, analysis of results, manuscript preparation, etc.). The student should obtain the approval of their advisor prior to submitting this document. The student must submit a complete draft to their advisor no later than one month prior to the deadline for the final paper.

By 5:00PM two weeks after the start date of the first semester of the second year (if this date falls on a weekend or academic holiday the due date will be 5:00 PM on the first day following on which University classes are in session), the student must submit a written paper describing their work structured in accordance with APA guidelines and including all sections necessary for a typical journal submission in their field. It should not exceed 20 pages of text (exclusive of References, Tables, and Figures). Approval of the paper is required by two members of the Human Factors and Cognitive Psychology program faculty (one of whom will be the student's advisor; the other will serve as a 'reader.'). The student must inform the program assistant via e-mail who their second reader is no later than the date the final manuscript is submitted. The student must submit the manuscript to his/her advisor and the reader by the deadline noted above, and they must cc the Program Director and Program Assistant on the e-mail. The advisor and the reader will evaluate the manuscript on a pass/fail basis. If the advisor and the reader disagree regarding whether the paper is acceptable, then the manuscript will be reviewed by the entire HFC committee, and the committee will make the final determination regarding pass/fail. The pass/fail decisions will be completed during a HFC Program Faculty meeting.

Additionally, the student must undergo a 20-minute oral examination based on the written report. This examination will be in the format of an academic talk delivered to area faculty and students that will occur after submission of the First Year Paper at a time and date determined by the Program Director. Satisfactory performance on both the paper and oral examination is required to maintain good standing in the program. Cases in which performance is deemed unsatisfactory may result in dismissal from the program, but it will at minimum result in academic probation with conditions specified in a retention plan for the student. In such cases, the student must successfully satisfy the conditions of this plan to maintain status in the program. If a student already on academic probation delivers a first-year project (either paper or talk) that is deemed unsatisfactory then they may be removed from the program at the discretion of the program faculty committee. Failure to complete the first-year project is grounds for dismissal from the program.

3. Second-Year Project

In the second year, all students must do a laboratory research project (the Second Year Project) that includes at least one empirical study. The project must be approved and will be supervised by the student's advisor. Students must submit a paragraph in a Word document to the program director and program assistant that describes 1) what they intend to investigate (e.g., "I will be investigating the effects of X and Y on Z and W." or "Based on results of my previous study, I will investigate…"); and 2) what their contribution to the project will be (e.g., conceptualization, development of the tasks, analysis of results, manuscript preparation, etc.). The student should obtain the approval of their advisor prior to submitting this document. The deadline for submitting the document will be the middle of the Fall Semester of the second year in the program. The specific date will be determined by the program director.

By 5:00PM two weeks after the start date of the first semester of the third year (if this date falls on a weekend or academic holiday the due date will be 5:00PM on the first day following on which University classes are in session), the student must provide a written paper describing their work structured in accordance with APA guidelines and including all sections necessary for a typical journal submission in their field. It should not exceed 20 pages of text (exclusive of References, Tables, and Figures). Approval of the paper is required by two members of the Human Factors and Cognitive Psychology program faculty (one of whom will be the student's

advisor. The reader may be, but is not required to be, the same faculty member who served as reader for the first-year project. The student must inform the program assistant via e-mail who their second reader is no later than the date the final manuscript is submitted. The student must submit the manuscript to his/her advisor and the reader by the deadline noted above, and they must cc the Program Director and Program Assistant on the e-mail.

Additionally, the student must undergo a one-hour oral examination based on the written report. This examination will be in the format of an academic talk delivered to area faculty and students that will occur in an HFC Program Seminar (typically held on Friday afternoons) during the Fall or Spring Semester of the third year in the program. The specific date on which the student presents their work will depend on the seminar schedules for those two semesters. Satisfactory performance on both the paper and oral examination is required to maintain good standing in the program. Cases in which performance is deemed unsatisfactory may result in dismissal from the program, but it will at minimum result in academic probation with conditions specified a retention plan for the student. In such cases, the student must successfully satisfy the conditions of this plan to maintain status in the program. If a student already on academic probation delivers a second-year project (either paper or talk) that is deemed unsatisfactory then they may be removed from the program at the discretion of the program faculty committee. Failure to complete the second-year project is grounds for dismissal from the program.

4. Literature Review Paper

Students will fulfill the Literature Review Paper requirement by completing a sole-authored review paper of literature in their area of research interest. The paper will synthesize research of that selected area and derive and include proposals of novel hypotheses, models, or frameworks that can be used to formalize the selected literature to advance future research.

Fulfilling this requirement is intended to a) develop students' expertise in their research area, b) refine students' abilities to capture current understanding of a research topic through scholarly writing, c) encourage students to develop well-supported and testable hypotheses that can advance research in their field, and d) provide students an opportunity to receive feedback from all program faculty.

Students can focus this review on their intended dissertation topic and use said review as a basis for their dissertation introduction. This is not a requirement. Prior to beginning the review, students must document approval of the topic from their advisor. The advisor will also determine the length and content requirements for the literature review. They must also obtain commitment from a second reader (from within the HFC faculty) to assess the completed review. The second reader cannot be the same second reader selected for the student's First Year Research Project. The deadline for submission of the final document to the advisor and the reader will be during the spring semester of the third year and will be determined by the program director. Note that students need to provide a draft of their literature review to their advisor at least two weeks prior to the final submission deadline. Any changes required by readers must be integrated and the revision completed to the readers' satisfaction in order for the student to fulfill this requirement. The final version must be submitted by the student via e-mail to the student's advisor and the reader; the student must cc the Program Director and the Program Assistant on the e-mail.

The review paper must be formatted in accordance with APA guidelines. Students may refer to papers published in Annual Review of Psychology for guidelines on the length, composition, and level of support included in a well-composed review.

http://www.annualreviews.org/journal/psych

Teaching/Professional Presentations Domain

Fulfillment of this domain requires first that **all** students complete the UCF Graduate Studies 2-day GTA Training session. In addition, students must either serve as instructor of record for an undergraduate course at UCF or complete formal presentations. Students are free to select either option in consultation with their faculty advisors. If the student opts for instructor of record of an undergraduate course, the student must do the following: Submit a syllabus, lecture notes, examinations, two course evaluations (mid and end-of-semester administered online by UCF, distributed by Psychology), as well as written feedback from the student's faculty advisor or members of the student's competency committee who directly observed or viewed videotapes of at least three lectures. If the student opts to conduct professional presentations, that student must complete at least two presentations (see table below) in which he or she is an author and is also the primary presenter. Written feedback from the student's faculty advisor or members of the student's competency committee who directly observed or viewed videotapes of the five lectures must be available for review. Professional presentations classroom presentations (e.g., guest lecturer).

Fulfillment of the traditional **Teaching** domain is intended to provide students with (a) additional training and opportunities to develop instructional skills consistent with university level instruction, (b) the opportunity to receive and react to constructive comments concerning their developing instructional skills, (c) additional opportunities to learn and develop expertise in using newly developed technology and methods relevant to university level instruction (e.g., active learning groups, computer assisted technology, software programs that facilitate and complement traditional instructional activities), and (d) additional expertise in select areas of psychology to prepare them for future professional instructional opportunities following graduation from the University. The **alternative option** under this domain is intended to encourage students to engage in research studies beyond those required by the program and to present their findings at professional meetings. Fulfillment of this requirement is expected to promote research involvement throughout graduate training and promote student competency in (a) developing written submissions of completed empirical works, (b) oral presentations skills with professional audiences, (c) learning and using innovative technology relevant to paper/poster presentations, and (d) receiving and reacting to constructive comments offered by professionals.

Students satisfy this domain by accumulating 4 points for teaching and/or professional presentation. For presentations, the student must be the presenter. Points are assigned as follows:

Activity	Points
One paper presentation (lecture) at National/International conference	2
One poster presentation at National/International conference	1
One paper presentation at regional conference	1
One poster presentation at regional conference	1/2
One paper or poster presentation at UCF Graduate Research Forum	1/2
Teaching Assistant teaching a research methods laboratory section (limit of one section per semester)	1
HFC Program Colloquium/Brown-bag presentation	1
Teaching a course as instructor of record	4

The student must report each activity and complete and submit all forms for inclusion in their portfolio within thirty (30) days of the presentation or of the end of the semester in which the teaching activity occurred. The student must also inform his/her advisor, the Program Assistant, and the Program Director each time an activity is added to his/her Competency portfolio. Failure to meet the thirty-day deadline will result in disqualification of the activity for satisfying this competency. The activity may be reviewed by the HFC committee to determine whether the student has satisfied this requirement.

Procedures and Time Guidelines for Completing the Competency Requirements

Students admitted to the Ph.D. Human Factors and Cognitive Psychology Program must complete competency domains (Research and Teaching/Professional Presentations) to fulfill the professional competency requirements. Students are strongly encouraged to discuss their preferences and planned course for fulfilling these requirements with their academic advisors. Students should consult with the Program Assistant within the first two weeks of each semester to verify that their dossier is up to date. Students admitted to the Ph.D. Human Factors and Cognitive Psychology Program **will not be** able to fulfill the requirements with previous work completed at any institution previous to their enrollment in the HFC Ph.D. program at the University of Central Florida (UCF).

The competency activities must be successfully completed before proposing the dissertation. The deadlines for completion of each competency are indicated in the Table 1. Each student's competency evaluation committee (which may be different from or identical to the dissertation committee) will determine whether the student has successfully fulfilled the competency requirements. Students are strongly encouraged to consult with their advisor in selecting a competency evaluation committee. With the exception of the student's advisor, the members of the competency committee are not required to be members of the dissertation committee. One consideration in identifying potential committee members is the topic you select to meet the research domain. Students are responsible for submission of paperwork required to establish their committee, and they should consult with the Program Assistant to coordinate this process.

A written summary of the results and the student's Professional Activity Domain dossier will be forwarded to the Human Factors and Cognitive Psychology Program faculty for review and final approval. Students must submit their candidacy dossiers to the HFC Program faculty thirty (30)

days prior to the beginning of the semester they anticipate becoming ABD. Failure to do so may result in delaying their advancement to candidacy. The Program faculty will then review each submitted dossier and the Director of the HFC Program will notify students in writing following the successful completion of the competency requirements. Students may formally propose their dissertation following written notification that they have completed the competency requirements.

C. Sample Timeline for Completion of Degree Program: 5 Year Schedule

Note that if a student anticipates a deviation from this schedule, he/she should consult with his/her advisor as well as with the program director.

Doctoral Program Courses:

1st Year of Graduate Training

Fall:	Spring:	Summer:
EXP 5256 Human Factors I (3)	EXP 6257 Human Factors II (3)	EXP 6939 Teaching Seminar
EXP 6506 Human Cognition & Learning (3)	EXP 5208 Sensation & Perception (3)	**AND** [EXP 6918 Directed Research (3)
PSY 7217C Advanced Research Methodology I (4)	PSY 7218C Advanced Research Methodology II (4)	**OR** EXP 6918 Directed Research (6)]
Semester Total: 10	**Semester Total: 10**	**Semester Total: 6**

2nd Year of Graduate Training – Entered program on an EVEN Year

Fall:	Spring:	Summer:
EXP 6116 Visual Performance (3)	PSB 6328 Psychophysiology (3)[a]	Elective (3) **AND** [EXP 6918 Directed Research (3)
EXP 6255 Human Performance (3)	INP 7089 Human Factors Professional Issues (3)	**OR** EXP 6918 Directed Research (6)]
PSY 7219C Advanced Research Methodology III (4)	EXP 6258 Human Factors III (3)	
Semester Total: 10	**Semester Total: 9**	**Semester Total: 6**

[a] You may take this course to satisfy the course requirement specified in Part A. If you use PSB 6348 Neuroanatomical Basis of Psychological Functions to satisfy this requirement, then replace PSB 6328 with a three-credit elective.

[b] If you intend to complete the Neuroscience concentration, then one of these electives should be PSB 6352 Neuroimaging Design and Analysis Methods (3)

2nd Year of Graduate Training– Entered program on an ODD Year

Fall:	Spring:	Summer:
EXP 6116 Visual Performance (3)	PSB 6328 Psychophysiology (3)[a]	Elective (3) **AND** [EXP 6918 Directed Research (3)
EXP 6255 Human Performance (3)	Elective (3)[b]	**OR** EXP 6918 Directed Research (6)]
PSY 7219C Advanced Research Methodology III (4)	EXP 6258 Human Factors III (3)	
Semester Total: 10	**Semester Total: 9**	**Semester Total: 6**

^a You may take this course to satisfy the course requirement specified in Part A. If you use PSB 6348 Neuroanatomical Basis of Psychological Functions to satisfy this requirement, then replace PSB 6328 with a three-credit elective.

^b If you intend to complete the Neuroscience concentration, then one of these electives should be PSB 6352 Neuroimaging Design and Analysis Methods (3)

3rd Year of Graduate Training– Entered program on an EVEN Year

Fall:	Spring:	Summer:
Elective (3) PSB 6348 The Neuroanatomical Basis of Psychological Functions (3)^a Elective (3)^b	EXP 6541 Advanced Human Computer Interaction (3) Elective (3) Elective (3)	Elective (3) **AND** [EXP 6918 Directed Research (3) **OR** EXP 6918 Directed Research (6)]
Semester Total: 9	**Semester Total: 9**	**Semester Total: 6**

^a You may take this course to satisfy the course requirement specified in Part A. If you use PSB 6328 Psychophysiology to satisfy this requirement, then replace PSB 6348 with a three-credit elective.

^b If you intend to complete the Neuroscience concentration, then this elective should be PSB 7349 Advance Topics in Cognitive Neuroscience (3)

3rd Year of Graduate Training– Entered program on an ODD Year

Fall:	Spring:	Summer:
EXP 6116 Visual Performance (3) PSB 6348 The Neuroanatomical Basis of Psychological Functions (3)^a Elective (3)^b	EXP 6541 Advanced Human Computer Interaction (3) INP 7089 Human Factors Professional Issues (3) Elective (3)	Elective (3) **AND** [EXP 6918 Directed Research (3) **OR** EXP 6918 Directed Research (6)]
Semester Total: 9	**Semester Total: 9**	**Semester Total: 6**

^a You may take this course to satisfy the course requirement specified in Part A. If you use PSB 6328 Psychophysiology to satisfy this requirement, then replace PSB 6348 with a three-credit elective.

^b If you intend to complete the Neuroscience concentration, then this elective should be PSB 7349 Advance Topics in Cognitive Neuroscience (3)

4th Year of Graduate Training

Fall:	Spring:	Summer:
PSY 7980 Doctoral Dissertation (3)	PSY 7980 Doctoral Dissertation (3)	PSY 7980 Doctoral Dissertation (3)
Semester Total: 9	**Semester Total: 3**	**Semester Total: 3**

5th Year of Graduate Training

Fall:	Spring:	Summer:
PSY 7980 Doctoral Dissertation (3)	PSY 7980 Doctoral Dissertation (3)	PSY 7980 Doctoral Dissertation (3)
Semester Total: 3	**Semester Total: 3**	**Semester Total: 3**

A complete listing of courses at UCF can be found at:
https://www.ucf.edu/catalog/graduate/#/courses

D. Graduate Research: Doctoral Dissertation

Prior to enrollment into PSY 7980 Doctoral Dissertation, you must have passed candidacy and your dissertation committee must be reviewed and approved by the College of Sciences Associate Dean of Graduate Studies. This form can be found online at:
http://www.students.graduate.ucf.edu/files/

Doctoral students engaging in dissertation research must be continuously enrolled in at least three hours of PSY 7980 every semester, including summers, until they successfully defend and submit their dissertation to the University Thesis Editor.

Students will complete a minimum of 15 dissertation credit hours to meet the requirements for graduation.

Program Guidelines

All dissertations must involve the collection and analysis of original data. In exceptional circumstances, the use of an archival data set may be accepted through petition to the Graduate Committee. Oral presentation of the dissertation/dissertation prospectus must be made to the Dissertation/ Dissertation Committee for approval prior to initiating the research. The proposal generally includes the following: (a) title, (b) introduction to the problem, (c) comprehensive review of relevant literature, (d) establishing the uniqueness of the study, (e) theoretical background and hypotheses, (f) planned methodology, and (g) planned data analytic approach. Students are encouraged to write their dissertation proposal and dissertation using APA publication style (see APA Publication Manual, 6th edition) and to submit their completed research to relevant professional journals in their field of research. An appendix to the dissertation and/or dissertation may be used to include a more comprehensive literature review as determined by the student's committee members. After submitting a written proposal to the Dissertation/Dissertation Committee, the committee will meet with the student to discuss and evaluate the proposal. The proposal must be submitted to the student's dissertation committee *at least two weeks prior to the oral defense of the proposal*. The approval of the proposal by a majority of committee members indicates that the committee members find the research to be original and appropriate, the literature review to be accurate and appropriately comprehensive, and the research design/planned data analytic strategy to be appropriate for the study.

After receiving committee approval for the thesis/dissertation, all students must receive approval from the University's Institutional Review Board (IRB) before data can be collected from human participants. Information about this process can be obtained from the Office of Research (www.research.ucf.edu). Failure to obtain this prior approval could jeopardize receipt of the student's degree.

Students should refer to the Graduate Studies Thesis and Dissertation Manual which describes UCF's formatting requirements for dissertations and outlines the steps graduate students must follow to submit their dissertations to Graduate Studies for binding. Graduate students can obtain the manual from the UCF Graduate Studies website (www.graduate.ucf.edu).

Dissertation Committee Composition

Doctoral students must establish a Dissertation Committee prior to the Candidacy Examination. The Committee will consist of a minimum of four members. At least three members must be qualified regular faculty members from the Psychology Department at UCF, one of whom must serve as the chair of the committee. The chair of the committee and one other departmental faculty member must be HFC program faculty. The third member may be either program faculty or Department faculty. The fourth member must be from either outside the student's department at UCF or outside the university. Note that the external committee member cannot have a joint appointment in the Psychology Department. In addition, if a person received his/her Ph.D. from UCF within five years prior to the formation of the committee, they may not serve as the external committee member. Alumni who received their Ph.D. from this program more than five years prior to the formation of the committee may serve as an external committee member.

It is likely that the student's advisor will serve as the chair of the committee. Students are therefore strongly encouraged to consult with their advisor in identifying potential committee members.

All members vote on acceptance or rejection of the dissertation proposal and the final dissertation. The dissertation proposal and final dissertation must be approved by a majority of the committee.

The dissertation must be submitted to the student's dissertation committee *at least two weeks prior to the oral defense of the dissertation*.

Dissertation Committee / Candidacy Status Form
⇨ http://www.students.graduate.ucf.edu/files/

These approval forms should be completed and submitted to the HFC program assistant. Refer to the above website for detailed information.

E. Time Limitation and Deadlines for Dissertation Completion

A student has twenty-one (21) semesters (summers included) from the date they start the doctoral program to complete the Ph.D. requirements. If the twenty-one semester limit is exceeded, the candidacy examinations as well as course work may need to be repeated or the student may be removed from the program for lack of progress toward the degree. More information on this policy can be found at https://www.ucf.edu/catalog/graduate/#/policies

Students approaching this deadline will need to submit a completion plan. The form can be found at: https://graduate.ucf.edu/wp-content/uploads/2020/04/7-Year-Rule-Completion-Plan-Online.pdf

Deadline, Dissertation Proposal Defense: End of 8th semester in Program (excluding summers)
Deadline, Dissertation Defense: End of 11th semester in Program (excluding summers)

F. Masters of Arts (en Route)

This is a non-terminal master's degree available only to students in the HFC Psychology Doctoral track. Students enrolled in the Human Factors and Cognitive Psychology (HFC) Doctoral track may elect to earn a Master of Arts in HFC Psychology in route to their doctorate. The M.A. in HFC Psychology requires a total of 60 credit hours beyond the bachelor's degree, as well as successful completion of the candidacy examination that qualifies the student for candidacy status within the HFC Psychology Ph.D. program. All HFC MA students take the same credit hours of core courses (less the 15-hour dissertation requirement) as well as and 18 credit hours of electives. All required courses and selected electives are described in the PhD program of study above.

Note: The Psychology – HFC M.A. en Route cannot be pursued if a master's in psychology or master's in modeling and simulation has already been awarded.

Total Hours Required for M.A. en Route — 60 credit hours

5. Departmental Policies

A. Student Rights and Responsibilities

The Golden Rule is provided to answer any questions a student may have about the University rules and regulations, as well as outlines a student's rights and responsibilities. The Golden Rule can be found online at http://www.goldenrule.sdes.ucf.edu/. In addition, graduate students can find additional information about their responsibilities in the Graduate Catalog, found online at https://www.ucf.edu/catalog/graduate/#/home in the section marked Policies > General Policies.

For more information about college and university graduate policies, see also:

Psychology Department Website:
> http://www.psych.ucf.edu

College of Sciences Graduate Website:
> http://graduate.cos.ucf.edu

UCF Graduate Studies Website:
> http://www.graduate.ucf.edu

B. Academic Progress and Performance

> **Review of Academic Performance**

The primary responsibility for monitoring academic performance standards rests with the degree program. However, the college and UCF Graduate Studies will monitor a student's progress and may dismiss any student if performance standards or academic progress as specified by the program, college or university are not maintained. In addition to the minimum GPA requirement (see below), satisfactory performance also involves maintaining the standards of academic progress and professional integrity expected in a particular discipline or program. Failure to maintain these standards may result in dismissal of the student from the program.

Graduate Status GPA

A graduate status GPA will be calculated on the graduate courses taken at UCF since admission into the degree or certificate program and used to monitor the student's progress in the program. The University requires that students must maintain a graduate status GPA of at least 3.0 or higher in order to maintain regular graduate student status, receive financial assistance, and qualify for graduation. This GPA requirement cannot be waived.

A Graduate Status GPA will also be calculated on graduate courses taken at UCF while in non-degree status. Non-degree Students with GPAs below 3.0 after the initial 9 hours of graduate course work are subject to dismissal.

Probationary Status and Dismissal

Students whose graduate status GPA falls below 2.0 will be immediately dismissed from the degree program and will not be allowed to enroll in graduate courses unless they have been admitted to another graduate program or admitted as a non-degree student.

Students whose graduate status GPA drops below 3.0 but above 2.0 will be automatically changed to academic probationary status by the Division of Graduate Studies for a maximum of nine semester hours of letter-graded course work (Grades A-F). Unsatisfactory performance may also be indicated by a "U" grade in graduate course work. Under such circumstances the program may elect to place the student on academic probation.

Students will receive a notice of probation at the beginning of the probation and the notice of probation will be imprinted on the student's advising transcript. If the student has not attained a graduate status GPA of 3.0 of graded course work at the end of the probationary nine semester hours, she/he will be dismissed from the graduate program unless an approved Conditional Retention Plan is in place as described below. Students who have not remedied the unsatisfactory "U" performance, as defined by the program, may also be dismissed from the program.

The graduate program will also be notified at the time of probation and given an opportunity during the 9-hour probationary period to formally prepare a "Conditional Retention Plan" in consultation with the Appeals Subcommittee of the Graduate Council. The Conditional Retention Plan should show how the student can realistically regain his/her regular graduate status (GPA 3.0) within a reasonable time (usually one semester). It should also define the courses to be taken and the timing of the courses to regain his/her graduate status. In addition, the plan can include other conditions as necessary for the continued enrollment of the student in the program such as retaking courses requiring better performance, taking remedial course work in specified areas, or completing special projects to better prepare the student for success in the program. Ideally the student and the faculty should know exactly what conditions are required for the continued enrollment of the student. Failure to meet the conditions will result in dismissal without any further appeal of retention. An approved Conditional Retention Plan by the Appeals Subcommittee will usually include an extension of the probationary period, if needed, thus allowing the student to continue without interruption in his/her program even should the student fail to succeed in their initial probationary period. International students placed on probationary status will be sent to the International Services Center for advisement regarding the immigration status implications of this action.

More information regarding probation and dismissal resulting from a low GPA can be found at:

https://graduate.ucf.edu/graduate-guide/student-services-and-academic-records

After dismissal, the following options are available:

OPTION A

The Program Appeals for Retention of the Student in the Next Semester After Dismissal.

The dismissed student may not take program-related course work during this appeal, which must occur within the next semester following dismissal. The appeal for retention should include reasons for readmitting the dismissed student, as well as provide a "Conditional Retention Plan" as described above. If the appeal is approved, students will be readmitted into the program under the "Conditional Retention Plan," and failure to meet the conditions will result in dismissal without any further appeal of retention. Appeals for retention submitted during the summer may be delayed until the first Appeals Subcommittee meeting in the fall semester. An approved appeal for retention will allow the student to reenroll in the very next semester and not have a "dismissal" on his/her transcript.

OPTION B

The Dismissed Student Applies for Entry into the Program from Which He/She Was Dismissed.

In this case, the student must submit a complete new application (application fee, letters of reference, transcripts, GRE, and a statement describing why the student thinks he/she is more capable now to successfully complete the program). The program must make a new admissions decision and prepare a "Retention Plan" (as described above) if they choose to admit the former student. The Retention Plan must be submitted and approved by the Graduate Appeals Subcommittee before the student is admitted.

A student that is admitted back into a program from which he/she was dismissed will continue to have the original dismissal denoted on the transcript and will continue with the same graduate status GPA that the student held prior to dismissal. Also, the student is admitted as a Provisional Student and must meet the conditions prescribed by the Retention Plan to enter regular graduate status.

OPTION C

Apply to Another Program.

This option is always available and requires a completely new application.

NOTE: Individual graduate programs may have more stringent grade requirements than described above. Students must abide by the academic performance standards of their graduate program.

Maximum Hours of Unsatisfactory Grades

A degree-seeking or non-degree student may earn a maximum total of three semester hours of "C" (C+, C, C-) or lower grades. A course in which a student has received these grades may be repeated to provide a better grade. However, both grades will be used in computing the GPA. **There is no forgiveness policy on graduate grades**. Exceeding three semester hours of unsatisfactory grades ("C+" and below. A 'U,' or unresolved "I" grades) is reason for dismissal by the Program.

Incomplete Grades

A grade of "I" (incomplete) is assigned by the instructor when a student is unable to complete a course due to extenuating circumstances, and when all requirements can clearly be completed in a short time following the close of regular classes. In all circumstances where an "I" grade is received, the student and faculty member must complete an agreement form that specifies how and when the incomplete grade will be made up. This agreement form is submitted with the instructor grade rolls at the end of the semester, and a copy of this agreement is given to the college for further follow-up. For those students on financial assistance such as loans, the incomplete (I) must be made up by the agreement date. Failure to complete course requirements by that date may, at the discretion of the instructor, result in the assignment of an "F" grade, or a "U" grade for thesis, dissertation, or research report hours. It is the student's responsibility to arrange with the instructor for the changing of the "I" grade.

Grades of "I" must be resolved within one calendar year or prior to graduation, whichever comes first. Incompletes in regular course work left unresolved will be changed to "F" if not changed in the allowed time period, and this time period may be sooner for those receiving financial assistance. The exception to this is enrollment in thesis (PSY 6971) and dissertation (PSY 7980) hours where the incomplete grade will be allowed to continue until graduation. UCF fellowship students cannot receive fellowship funds while holding "incomplete" grades and have thirty days from the issuance of the Incomplete to remedy it in order to continue to receive fellowship funds.

Academic Honesty and Ethics

Students in Human Factors shall abide by the APA Ethical Principles of Psychologists and Code of Conduct, and by the UCF Student Conduct Code. Ethical conduct issues include responsibility to the public, conduct of research, dissemination of information, confidentiality, and academic honesty. HFC students are required to complete CITI Training prior to conduction research or working with participants. Students are required to complete 4 RCR training courses prior to the end of the fourth major semester.

Students are advised that it is wise to discuss and have agreements regarding roles, responsibilities and publication credit prior to engaging in collaborative research. The authorship of dissertation and dissertations should reflect the student's primary responsibility for the project (i.e., students should be the first author). However, students may choose to relinquish their right to first authorship. For example, they may decide not to publish their findings in a timely manner yet make arrangements with a collaborator to do so. In any case, publication credit is assigned to those who have contributed to a publication in proportion to their professional contributions as detailed in the APA Publication Manual 6th edition.

Any student suspected of violating any of the APA ethical principles, including treatment of research participants and any incidents of plagiarism, will be evaluated by the HFC Graduate Program Committee and may be grounds for dismissal from the program. The Program Committee will evaluate and decide on any remediation action as a consequence of ethical violations.

C. Full Time Enrollment & Continuous Attendance

Full-time graduate status is nine (9) hours during the fall and spring semesters and six (6) hours during the summer semesters, until regular graduate course work is completed.

Doctoral students who have finished all of their coursework and have passed their candidacy exam are considered full-time for fellowship, employment, and tuition waiver purposes if they enroll in 3 hours of dissertation research (PSY7980) for each term until degree requirements are completed.

Once a student has begun work on their dissertation, he or she must be continuously enrolled in dissertation course work for a minimum of three hours each semester.

Requirements that need to be met for federal loan eligibility override graduate full-time requirements. A student may be held to other enrollment requirements, as defined by financial awards, veteran status, employment, or other outside agencies.

Failure to enroll in three consecutive semesters (spring, summer, fall) is considered non-continuous enrollment.

1. Students are expected to maintain enrollment and to complete their graduate study expeditiously. A Special Leave of Absence should be requested when students will not be enrolled for three consecutive semesters or more. If students are not enrolled in the university for a period of three consecutive semesters (spring, summer, fall) and do not obtain Special Leave of Absence approval for such interruptions in their programs of study, they will be discontinued and must reapply for admission. Readmission is not guaranteed.

2. All (domestic and international) students taking thesis or dissertation hours are required to be continuously enrolled (including summer) until the thesis or dissertation is completed.

3. Because of U.S. government regulations, international students must be enrolled every fall and spring semester. For students in this category, Special Leave of Absence is only available for documented medical reasons.

4. A student without an approved Leave of Absence who breaks continuous enrollment will lose the option of fulfilling the degree requirements originally listed in his/her official program of study already on file and will instead fulfill the degree requirements listed in the graduate catalog in effect at the time the student resumes his/her attendance.

D. Special Leave of Absence

A Special Leave of Absence may be granted to a student in order to temporarily waive the continuous attendance requirement. A student may request such a leave in cases where the

student can demonstrate good cause (e.g., illness, family issues, financial difficulties, personal circumstances, employment issues). The specific reason for the Special Leave of Absence request must be indicated by the student on the Special Leave of Absence Form. A Special Leave of Absence will be granted only after approval from the Graduate Program Director for the student's program of study, College Graduate Coordinator, International Services Center (required for international students), and Division of Graduate Studies. The normal time limit for a Special Leave of Absence is three consecutive semesters.

Application for a Special Leave of Absence must be filed by submitting the Special Leave of Absence Form no later than the end of the first semester of absence. Time spent in a Special Leave of Absence will not reduce the total time limitation for degree completion (see the policy regarding Time Limitation for Degree Completion in the master's, specialist, and doctoral policies). If a student fails to enroll in the semester following the last term in the approved Special Leave of Absence, the student will have failed to maintain continuous enrollment and must apply for readmission to the university.

E. Readmission

To file for readmission, students must complete a new application, submit the application fee, and update their residency information and health history (if applicable). Students should apply for readmission if they were previously admitted and enrolled in a graduate program but have been absent for three major semesters. For more information on readmission, please visit the Graduate Students website.

F. Restricted Registration

If a course is "closed" and falls under one of the following, the student must obtain a Restricted Registration Form and submit it to the program assistant with the faculty's signature. Restricted Registration Form:

https://sciences.ucf.edu/graduate/current-students/forms/

Directed Independent Studies	5907	6908
Directed Research	5917	6918
Internships, Practicum,	5944	6946
Study Abroad	5957	6958
Research Report		6909
Thesis		6971
Doctoral Research		7919
Doctoral Dissertation		7980

If a class is "closed" and does not fall under one of the above, the student must obtain an override form from the program assistant. Overrides are not handled by students, only by staff. Please email your program assistant if you are in need of an override.

Once a student has begun work on his/her dissertation, he/she must be continuously enrolled in dissertation course work for a minimum of three hours each semester.

A student may be held to other enrollment requirements, as defined by financial awards, veteran status, employment, or other outside agencies.

G. Transfer Coursework

Doctoral transfer credits typically consist of graduate course work completed at a regionally accredited institution or recognized foreign institution (including UCF) BEFORE a student is given graduate status in his/her doctoral program at UCF. In all cases, the transfer work will constitute less than half of the program hours necessary for degree requirements, per accreditation guidelines. Only graduate-level or higher courses may be accepted as transfer credits. Similarly, only courses with a grade of "B-" or higher may be transferred into a program of study. The acceptance of transfer credits must be recommended by the program director of the student's major.

For doctoral programs, a minimum of half of the total hours in the degree program must be taken at UCF. If approved transfer hours are from a completed master's degree, it is the discretion of the Program Director to either waive the coursework or conduct a course-by-course transfer of the courses into the UCF program of study. When the transfer is from a completed master's degree, the 7-year rule is waived. If the transfer hours are not from a completed master's degree, a course-by-course transfer is required, and the 7-year rule is applicable.

Students are limited to transferring 9 hours of graduate level coursework taken at UCF while an undergraduate or that was taken as a part of the Senior Scholars program.

H. Incomplete Grades

Students who received an incomplete (I) in a course are encouraged to resolve this incomplete as soon as possible; however, it must be resolved within one calendar year or prior to graduation certification, whichever comes first. Incompletes left unresolved will be changed to F (or a U in thesis, dissertation, or research report) if not resolved in the allowed time period. Incomplete grades cannot be used towards completion of the program of study.

Incomplete grades are not counted as satisfactorily completed courses and are not recognized as such by Graduate Studies for fellowship purposes nor by Financial Aid. Students on financial assistance must check with the Financial Aid office to see if the receipt of an incomplete grade will affect their financial award.

I. Withdrawal Policy

If a student decides to withdraw from a course, he/she must do so by the semester's withdrawal deadline. In doing so, the student is still liable for tuition and fees for the course.

J. Petitions and Grievances

It is the policy of the Doctoral Program in Human Factors and Cognitive Psychology in the Department of Psychology at the University of Central Florida to provide a safe, comfortable, and positive learning and working environment for students, faculty, and staff. The Doctoral Program will not tolerate any discrimination or harassment based on gender, race, ethnicity, sexual orientation, religious preferences, disability, or age. Interactions between and among

students, faculty and/or staff are expected to occur in a professional and responsible manner consistent with APA ethical guidelines and established social etiquette.

The faculty recognizes that conflicts between students or between students, faculty and/or staff can occur for a variety of reasons despite consistent efforts to maintain a positive interpersonal ambience in the program and department. Students and faculty are encouraged to resolve these conflicts quickly and in a responsible manner. A variety of options are available to students who believe that a conflict cannot be resolved through discussion with involved students, faculty, or staff. UCF Graduate Studies allows for petitions of university requirements and their academic matters. Academic matters are those involving instruction, research, or decisions involving instruction or affecting academic freedom.

The academic grievance procedure is designed to provide a fair means of dealing with graduate student complaints regarding a specific action or decision by a faculty member, program or college, including termination from an academic program. Academic misconduct complaints associated with sponsored research will invoke procedures outlined by the Office of Research. Students who believe they have been treated unfairly may initiate a grievance. The procedure provides several levels of review, and at each level of review the participants are further removed and have a broader outlook than where the grievance originated. Procedures for initiating an academic grievance can be found at The Golden Rule www.goldenrule.sdes.ucf.edu/
Students who wish to file a grievance should consult University policies 5.016 and 5.017. These can be found at: https://regulations.ucf.edu/chapter5.asp

Petitions of Graduation Requirements Procedures

Students have the responsibility to familiarize themselves with policies and procedures of the university, college, and program. Students are responsible for knowing the degree requirements and following the policies that govern the academic program. However, when unusual instances arise, making it appropriate for students to request exceptions of existing graduate academic policies for graduate students, graduate students may petition the appropriate unit for an exception to this requirement. The procedures are:

- The graduate student completes a Graduate Petition Form, specifying the requirement and the exception desired to the graduate program director.

- The graduate program director may ask the program graduate committee to examine the necessary information. The program graduate committee will recommend a response to the petition to the graduate program director.

- The graduate program director will consider the input of the program graduate committee and make a recommendation about the exception at this level. The graduate program director will consider the input of the unit graduate committee and make a recommendation to the unit head about the petition. The unit head will then make a final unit decision about the petition at that level. If the exception requested is only a program requirement, then the petition decision is final at this level.

- Should the graduate student wish to appeal the decision of the program, either because the requirement is a college, school, or university requirement or further evidence is now available that would cause the program decision to be reconsidered, the student or program may request in writing to the college or school graduate coordinator (if this is the next most

appropriate unit) or the College of Graduate Studies (if this is the next most appropriate unit) that the petition be considered at this level. The college or school graduate coordinator may ask the college or school graduate committee to examine the information and consider the petition at a scheduled meeting. The college or school graduate committee will recommend a response to the petition to the college or school graduate coordinator.

6. Professional Development

Work Policy

The Human Factors & Cognitive Psychology Ph.D. program at University of Central Florida expects students to be full time students, so it is not recommended to get employment that requires more than 20 hours/week during the completion of the program.
Students with 10 hours/week or 20 hours/week department assistantship are eligible to receive tuition remission in the form of a waiver or funds (excluding the student fees).

First year students are usually assigned as GTA (graduate teaching assistant) position and more advanced experienced students will be assigned as GTA (assistant or associate) or GRA (graduate research assistant).

Special Award Recognition

Following are various awards and fellowships available for qualified students at UCF.

University Awards

Each year, students can submit a portfolio for nomination of College and University level awards of excellence. These are intended to showcase student excellence in academic achievement, teaching, research, leadership, and community service.

⇨ Award for Excellence by a Graduate Teaching Assistant

- For students who provide teaching support and assistance under the direction of a lead teacher. This award focuses on the extent and quality of the assistance provided by the student to the lead instructor and the students in the class. (Not intended for students who are instructor of record)

⇨ Award for Excellence in Graduate Student Teaching

- For students who serve as instructors of record and have independent classroom responsibilities. The focus of this award is on the quality of the student's teaching and the academic contributions of those activities.

  ⇨ Award for Outstanding Dissertation

- To recognize doctoral students for excellence in the dissertation. The focus of this award is on the quality and contribution of the student's dissertation. Excellence of the dissertation may be demonstrated by evidence such as, but not limited to: publications in refereed journals, awards and recognitions from professional organizations, and praise from faculty members and other colleagues in the field.

⇨ Order of Pegasus

- ▪ This selective program recognizes exemplary performance by graduate students in the areas of academic achievement, professional or community service, leadership, and publication or research experiences. Because of the breadth of accomplishments required for this award, the Order of Pegasus is the most prestigious and significant student award that can be attained at the university. For more information, visit the Order of Pegasus website.

For more information about these awards, please reference the following link:

http://www.graduate.ucf.edu/article.aspx?id=206&ekmensel=e2f22c9a_20_40_206_1

National Awards

⇨ Fast Web Free Scholarship Search

- ▪ http://fastweb.monster.com/ib/scholarships-1f

⇨ **National Science Foundation Graduate Research Fellowship Program**

- ▪ https://www.nsfgrfp.org/

  UCF professional development programs

  Career Services and Experiential Learning

http://www.crc.ucf.edu/home/

Graduate career development issues are unique and include evaluating academic and nonacademic career choices, discussing graduate school effect on career choices, as well as learning, evaluating, and refining networking and interviewing skills. Whatever your needs, the offices of Career Services and Experiential Learning offer services and resources to aid in the career exploration and job search of Master and Doctoral students in every academic discipline.

  Graduate Student Association

http://www.gsa.graduate.ucf.edu/

- Seminar Series
  Each semester, GSA offers seminars geared toward academic and professional development.

- Graduate Research Forum
  Sponsored by the Division of Graduate Studies, the Research Forum is an opportunity for students to showcase their research and creative projects and to receive valuable feedback from faculty judges. Awards for best poster and best oral presentation in each category will be given and all participants will receive recognition.

Graduate Research Forum

The Research Forum, sponsored by the Division of Graduate Studies, provides opportunity for students to showcase their research and creative projects and to receive valuable feedback from faculty judges. Awards for best poster and best oral presentation in each category will be given and all participants will receive recognition.
 https://graduate.ucf.edu/

Human Factors and Ergonomics Society

The Society was founded in 1957 as the Human Factors Society of America. The Society's mission is to promote the discovery and exchange of knowledge concerning the characteristics of human beings that are applicable to the design of systems and devices of all kinds.
The Society furthers serious consideration of knowledge about the assignment of appropriate functions for humans and machines, whether people serve as operators, maintainers, or users in the system. And it advocates systematic use of such knowledge to achieve compatibility in the design of interactive systems of people, machines, and environments to ensure their effectiveness, safety, and ease of performance.

The Society encourages education and training for those entering the human factors and ergonomics profession and for those who conceive, design, develop, manufacture, test, manage, and participate in systems.   For more information on the society go to http://www.hfes.org/.

UCF student chapter of the HFES

Members of the UCF Student Chapter of the Human Factors and Ergonomics Society (HFES) are mostly graduate students in the Human Factors and Cognitive Psychology, and Industrial Engineering programs. The Student Chapter gives members the opportunity to further their professional goals by encouraging members to attend conferences and sponsoring colloquia where members have the opportunity to meet the foremost researchers in the field.

7. Financial Support

The Department of Psychology makes every effort to obtain financial support for graduate students, to the extent that funds are available. Sources of funds include departmental teaching and research apprenticeships and departmentally arranged support from outside sources such as grants. Funds will be distributed across students in an equitable manner. However, since sources of funds are often limited, financial support cannot be guaranteed to all students, regardless of year in the program or excellence of performance.

Tuition waivers are intended for full time students in good standing with a graduate GPA of 3.0 or higher. The student must be employed as a GTA, GRA or GA for at least 10 hours/week (.25 FTE) on average or receiving a fellowship that includes tuition support. Please refer to the current Graduate Catalog for additional rules and stipulations of tuition waivers.

https://www.ucf.edu/catalog/graduate/#/home

In addition to assistantships, graduate students may be eligible for fellowships, awards, loans, and work/study programs. Students should consult the Graduate Catalog or UCF financial aid office, http://finaid.ucf.edu for descriptions and requirements of graduate financial support.

Full time is considered 9 credits per semester for usual time and 3 credits in the dissertation period in the Psychology Department. However, it is individual student's responsibility to check the required units to retain any financial aids.

International Students

Several types of employment are available to international students, including on-campus employment. For more information about the types of employment available to international students, and the requirements and restrictions based in visa-type, please see the International Services Center's website: http://www.intl.ucf.edu

Assistantships and Tuition Waivers

For complete information about university assistantship and tuition waivers, please see the UCF Graduate Catalog: https://www.ucf.edu/catalog/graduate/#/home > Financial Information

To be employed and to maintain employment in a graduate position, the student must be enrolled full time and meet all of the training requirements and/or conditions of employment.

To be awarded and continue receipt of tuition remission, the student must be enrolled full time and either employed in a graduate position (GTA, GRA, GA), or receiving a University fellowship.

Doctoral students can be offered tuition remission for a maximum of twelve semesters (for doctoral student beyond the master's degree) or fifteen semesters (for doctoral students without a master's degree).

The HFC program commits to funding (stipend and tuition waiver) the Fall and Spring semesters of the first four years in the program. Funding beyond the fifth year and during summer semesters will be offered if it is available. If a departmental assistantship is desired beyond the fourth year, or during a summer semester, make your desire known when asked.

GTA Training Requirements

If the student is hired in the position of Graduate Teaching Associate, Assistant or Graders, there are training requirements that must be met in order for the contract to be processed. In order for students to be employed as Graduate Teaching Assistant, they must first complete the required UCF GTA Workshop. In order for students to be employed as Graduate Teaching Associate, students are also required to complete 18 hours of coursework in the discipline they intend to teach. Associates must also complete the online GT Assistant training and legal module. Students who are employed as Graders are required to complete the online legal module. These services are offered by the Faculty Center for Teaching and Learning (FCTL) and more information can be found at the following website: http://www.fctl.ucf.edu > Events > GTA Programs

- The Faculty Center for Teaching and Learning (FCTL) offers an optional Graduate Teaching Assistant Certificate Program.. For more information visit: http://www.fctl.ucf.edu/events/GTAprograms

If English is a second language, in order to be hired as a GTA the student must take and pass an Oral Proficiency Exam (also known as the "Versant Test"). This is in addition to attending this GTA Workshop. This test is administered by the English Language Institute and takes about 20 minutes. For more information, please visit the following website: https://graduate.ucf.edu/graduate-guide/graduate-teaching-requirements

To register for or inquire about the Versant examination, please visit:

https://global.ucf.edu/services/english-test/

GTA Performance Appraisal

At the completion of each semester the student is employed as a GTA, the student's performance will be evaluated by the faculty advisor. These assessments will be used to review strengths and weaknesses in the student's performance in preparation for future employment.

8. Graduation

Students are required to file a "Graduate Student Intent to Graduate" form by the end of registration add/drop in the semester that the student is intending to graduate. Graduate Student Intent to Graduate forms can be downloaded from the following Graduate Studies website:

https://graduate.ucf.edu/

All students intending to graduate must have a completed audit in order to have their intent accepted by COS and Graduate Studies.

In addition, it is a students' responsibility to check their account to ensure they are free of any financial holds from the university. Any student on hold with the university will not receive their degree until the hold is cleared. It is also important to monitor all deadlines associated with graduation. Particularly; there are two deadlines that will prevent graduation (ex, dissertation defense deadline, submission of dissertation defense to editor deadline). The information regarding the graduation deadlines can be found at the following website:

https://www.ucf.edu/catalog/graduate/#/home

The Graduate Advisor/Coordinator confirms potential completion of degree by confirming program/plan, checking audit (making any revisions) and signing the form. The audit (with needed corrections, if any) and form are forwarded to the COS Director of Graduate Services who verifies potential completion.

Note. If the audit does not show that all requirements may be met by the end of the intended term, the form will not be processed.

Approved forms are forwarded to the Division of Graduate Studies for processing and notification is sent to the Registrar's office that the student is intending to graduate. If it is determined that the student will not graduate, the COS Director of Graduate Services should be notified. The student will need to re-file their intent for the next semester they intend to complete the degree. Final certification is completed after grades have been released for the semester, and final transcripts are normally available about three to four weeks after certification.

9. Miscellaneous

a. **Stay aware!** Graduate students need to be independent and self-reliant. Expect lots of rules, forms, and deadlines that the department may have no influence over. Please do not expect your advisor, the program director, or the program assistant to remind you of missed forms, unfilled requirements, errors in your record, etc. By the time it comes across our desks, it may be too late. Please be vigilant, proactive, and constantly alert.

b. **Check email.** Graduate students are expected to check email daily. Moreover, they are expected to alert their advisor, program assistant, and program director when their email address changes. Many important program-related messages come through email. Don't ignore "group" messages. **Note that the program assistant and other Department and University staff are required to send e-mail ONLY to your Knightsmail account.** Your funding and even your status in the program could be jeopardized if you ignore your e-mails.

c. **Be familiar with UCF's policies.** Read the UCF Golden Rule, the Graduate Orientation materials, and the Graduate Catalog. When questions arise, consult these resources first. When answers can't be found, come to your advisor, the program director, or the program assistant.

d. **UCF is Growing and Changing.** Expect that things will change. You may see a different program director while you are here, as the Program Director position changes every 3 years. Graduate Studies changes their policies. The Department changes its policies. Our program changes. This is part of "Stay aware!"

e. **Interactions with faculty, staff, and other students**

    i. Attend class – every class – and be fully prepared. This is a minimum expectation. If you have an emergency and need to miss class, contact your professor (or the program director, if you cannot reach your professor) to discuss prior to missing class.

    ii. Do not spread rumors. When you hear a rumor about our program, come to the program director immediately to discuss.

    iii. Treat every interaction with professors, student colleagues, and staff members as if you are on a job interview. Your career depends on it. In a lot of ways, you are on a job interview every day. I can't emphasize this enough. Moreover, every interaction that you have with people at UCF (e.g., Psychology Department, Management Department, Graduate Studies, COS, etc.) and every interaction that you have with people in our field (e.g., emails with prospective students, etc.) affects our program and, ultimately, the quality of your degree. Always keep that in mind.

f. **Professional Activities**

   i. Every student is expected to participate in research from the start of the program until graduation.

  ii. Expect to attend and participate in department colloquia, brown bags, interviews with prospective faculty, new student visits, etc.

 iii. Expect to start becoming active in our field and at our university. There are a variety of ways that you can become involved, for example:

    1. join the HFES Student Chapter

    2. attend, present, and/or volunteer at conferences

    3. get involved in opportunities to bring speakers and conferences to Orlando

    4. participate in department-, college-, and university-wide research forums, student competitions, etc.

As a doctoral student, you are a professional colleague. You are expected to start contributing to professional activities and you are expected to act in a professional manner at all times. You are no longer on the outside looking in. Take advantage of all the ways you are welcomed into the profession. Attend workshops. Attend thesis and dissertation defenses. Attend conferences. Join organizations. Enjoy our field!!!!

Also, be careful to balance your service obligations with your course and research obligations. The difference between undergraduate coursework and graduate coursework is so great that it is very common to feel completely overwhelmed. Plan for that. You may have written your papers in one marathon session or crammed the night before an exam—now you won't be able to do that. You'll worry that not only do you not know things; you don't know what you don't know. The bad news: you're right! The good news: we'll all help you. You have what it takes to succeed, or we wouldn't have admitted you. Just prepare to work hard, listen to advice, and use resources that are available.

Student Support Services

The University of Central Florida, as a major research institution, provides a broad array of support services for its students. Information concerning these services is provided in publications such as the Graduate Catalog and the UCF website (https://www.ucf.edu/catalog/). In addition to the library and computing services, the University offers various services that promote students' social, physical, psychological, and recreational well-being. Examples of programs offered by the University of Central Florida include:

- The *Student Health Center* provides medical services for the diagnosis and treatment of most illnesses and injuries. Basic services also include allergy injections, blood pressure screening, consult-a-nurse services, immunizations, laboratory services, radiological services, pharmacy, post-injury care, referrals, physical exams, surgery (minor), and women's and men's clinics.

- The *Recreation and Wellness Center* offers cardiovascular training equipment, weight circuits, free weights, and a group aerobics room. Additional student facilities include an outdoor pool, sand volleyball courts, a disc golf course, softball fields, the Lake Claire recreation area (picnic facilities, watercraft, and nature trail) and a variety of multipurpose fields.

- The office of *Student Legal Services* provides qualified students with legal counseling and court representation in certain cases. Staff attorneys interview each client individually to advice in the areas of law that concern the student. Cases not covered by the program are referred to appropriate agencies or private attorneys through a lawyer referral service.

- The *Student Academic Resource Center* provides students with resources related to succeeding at the University such as workshops concerning study skills.

- The *Barbara Ying Center* serves international students and scholars and provides a social, cultural and intellectual focus for many university and community activities. Additional services include immigration counseling, international admission processing, and general advice and assistance relevant to international students attending UCF.

- The *University Counseling and Testing Center* provides counseling (individual, group, and crisis), testing, and consultation services that are available to all UCF students.

- The *Multicultural Academic and Support Services* provides comprehensive and academic support, cultural enrichment, consultation, and referral services that promote the recruitment, admission, retention, and graduation of African American, Hispanic American, Asian American, and Native American students.

- The *Career Resource Center* offers comprehensive services geared to providing students with the skills, resources, and knowledge concerning establishment of careers after graduation. They also provide workshops on developing skills for job searches after graduation, including a workshop on resume development.

- The *Office of Student Financial Assistance* provides students with information and assistance pertaining to available scholarships, grants, loans, and other sources of financial assistance available through the University.

10. Forms

Included below is information about several forms that will be useful while completing the coursework. In addition to websites where the forms can be found, procedures for filing each of these forms are also outlined.

Each of these forms can be found on the following websites:

College of Graduate Studies Website: https://graduate.ucf.edu/

College of Sciences Graduate Website: https://sciences.ucf.edu/graduate/

Transfer Requests

In order for transfer courses to be requested for use in the HFC Ph.D. program, the student must submit a request to the program assistant. If approved by the HFC program committee, a student may transfer or have waived up to 30 credit hours of course work. In addition to completing the

form, the students will need to provide the syllabus and course description for the courses they wish to transfer or use to waive a corresponding course in the program.

Traveling Scholar Form

If a student would like to request permission to enroll in a graduate course at another institution, this form must be submitted to the College of Sciences Director of Graduate Services prior to the start of classes for the semester of enrollment. Once the coursework is completed, official transcripts from the institution where the courses were taken must be sent to UCF's College of Graduate Studies.

Dissertation Committee Approval Form (*College Form*)

Dissertation committees must be in place and approved by the Graduate Program Coordinator, the Department Chair/Director, and the COS Associate Dean of Graduate Studies prior to a student's enrollment into Dissertation Research (PSY 7980)

Committee Composition:

- Chair (Requirements: regular* department faculty, terminal degree)
- Minimum of four committee members (Requirements: terminal degree or appropriate discipline recognition)
- At least three must be regular* faculty in student's department
  - Two of these must be HFC program faculty, one of whom is the chair of the committee (in most cases, this will be the student's advisor).
- At least one must be from outside the student's department
- Majority UCF faculty
- Regular department faculty are tenured or tenure earning faculty or research faculty with permanent appointments; and can include joint appointments but not courtesy joint appointments

Graduate Petition Form

Requests for exceptions to college or university policies are made by petition. The petition process includes both student and program required documentation prior to its receipt in the College of Graduate Studies.

- In addition to the Graduate Petition Form, the student must supply their program with a clear statement of what exactly is being requested, why it is being petitioned and rationale for support
- If approved, the program supplies an additional letter of support and forwards the request to the UCF Graduate Council Subcommittee for Policy and Appeals

Appendix A. Specialty Training Emphasis/Research Labs & Opportunities

a. **Adult Development and Decision Lab (ADD Lab)** is dedicated to understanding the neural mechanisms of decision processing across adulthood. Broadly, our research examines how momentary and long-term changes to brain function affect decision making. Current projects in the lab are focused on how cognitive and affective

components of decision making contribute to decision processing and quality. These studies aim to address important problems such as age-related decline in decision making and negative effects of stress on risk taking behavior. In conducting this research, lab members utilize an array of methodological approaches including behavioral manipulations, biomarker measurement, and functional magnetic resonance imaging. Director: Dr. Nichole Lighthall. Lab website: /http://sciences.ucf.edu/psychology/lighthalllab/

b. **Applied Cognition and Aging Lab (ACAL)** focuses on understanding the perceptual and cognitive processes that guide human behavior throughout the lifespan. Using that knowledge, we then devise strategies to augment human performance in a variety of "every day" (and not so "every day") tasks and situations, generally through training interventions and technological supplementation.   The lab utilizes a number of experimental techniques including traditional behavioral paradigms, eye tracking, virtual reality, driving simulation, and neuroimaging. Director: Dr. Mark Neider Lab website: http://www.markneider.com/ .

c. **Applied Cognition and Technology Laboratory (ACAT)** is a collaboration between a cognitive psychologist and a social psychologist. Research examines human interactions with intelligent non-humans, including robots, computers, and animals. Anthropomorphism and its implications for design are a key part of this research. Director: Dr. Valerie Sims. Laboratory Website: http://acat.cos.ucf.edu/

d. **Attention and Memory Lab** is focused on the interaction of visual working memory, long term memory, attention and oculomotor control. To guide attention throughout the world in a goal directed way, to pick up your coffee mug for example, we must maintain some mental representation of the object to match to the visual information in peripheral vision. We investigate this interactive process from a multitude of theoretical and methodological directions by integrating eye tracking with event-related potentials, allowing us to investigate the behavioral, oculomotor, and neural instantiations of memory and attentional processes. By better understanding how memory representations interact with attentional processes, we hope to gain insights into how these processes are integrated into our broader cognitive function. Director: Dr. Joseph Schmidt. Lab website: http://sciences.ucf.edu/psychology/awmlab/

e. **Categorization & Decision Lab** The Categorization & Decision Lab at UCF focuses on basic and applied research into how people learn to classify elements of their environment (e.g., diagnostic judgments) and how they make decisions. A long-term goal is to understand these cognitive behaviors well enough to apply our understanding to improve performance in operational environments. This research has implications for designing better training methods and for influencing design of interactive technologies. The lab emphasizes the use of computational cognitive modeling and methods from cognitive neuroscience (e.g., functional neuroimaging of cortical activity). Please visit our website: https://sites.google.com/site/categorizationdecisionlab Director: Dr. Corey Bohil.

f. **Center for Applied Human Factors in Aviation (CAHFA)** focuses its research on making aeronautical systems safer and easier to use by achieving sophistication without complication. Director: Dr. Mustapha Mouloua.

g. **FAA/UCF Partnership for Aviation Team Training Research** specializes in research in aviation training issues and conducts research for both military and commercial aviation. Director: Dr. Florian Jentsch.

h. **Minds in Technology, Machines in Thought (MIT^2) Laboratory** focuses on issues of stress, workload and fatigue in dynamic, hazardous environments with particular attention to military applications. We are a virtual research lab, including the Minds in Technology, Machines in Thought (MIT^2) Labs at the University of Central Florida, the Cognitive Sciences Lab at George Mason University, Linkoping University, Team

Performance Laboratory (UCF) and the Florida Institute of Technology. The MIT[2] affiliate labs at UCF include the the Transportation Research Group (TRG), and the Center for Applied Human Factors in Aviation (CAHFA). Please view our website at www.mit.ucf.edu.
Director: Dr. Peter A Hancock.

i. **Performance Research Laboratory (PeRL)** is involved in research on the performance, workload, and stress associated with performance of cognitive tasks. Both group and individual differences are investigated in research on human performance. Of particular interest is the interaction between the characteristics (trait and state) of individuals and the characteristics of the tasks they perform. Director: Dr. James Szalma. Laboratory Website: http://perl.cos.ucf.edu

j. **Team Performance Laboratory (TPL)** specializes in basic and applied principles of both individual and team performance, processes, and training in a number of military and civilian domains including aviation and human robot interaction. Current projects include, (a) in aviation, we are currently investigating Crew Resource Management (CRM) training and examining how it has been applied in different domains over the years with the overall goal of providing the Federal Aviation Administration (FAA) with valuable information for augmenting CRM guidelines, principles, procedures and tools, (b), in human-robot interaction, we are currently conducting research relevant to autonomy, shared mental models, situation awareness, and guided discovery learning in mixed human-robot teams for the Robotics Collaborative Technology Alliance (RCTA). Please view our website at www.tpl.ucf.edu Director: Dr. Florian Jentsch.

k. **Technology and Aging Lab (TAL)** was founded in 1994 and is led under the direction of Janan A. Smither Ph.D. and Daniel S. McConnell, Ph.D. TAL primarily explores the motor, perceptual, and cognitive effects of aging on modern technology, focusing across the lifespan. Lab Website: www.sciences.ucf.edu/psychology/tal

l. **Transportation Research Group** is dedicated to enhancing surface transportation safety and efficiency through applied research, design validation and training systems support. UCF provides TRG with the multidisciplinary capabilities of a major university, including academic strengths in applied psychology and engineering. TRG research is concerned with the behavioral, environmental and engineering factors in traffic safety. Specific areas of research include driving simulation, training, high-risk drivers, in-vehicle navigational systems, increased congestion, driver workload, driver fatigue, high speed pursuit, and driving under the influence of alcohol and drugs. The TRG research facilities consist of a wide variety of laboratories and centers throughout the university. These include the Visual Performance Laboratory, Human Factors Research Laboratory, The Florida Alliance for Assistive Services and Technology Laboratory, The Team Performance Laboratory, The Center for Applied Human Factors in Aviation, The Center for Advanced Transportation Simulation Systems, and the Institute for Simulation and Training. Director: Dr. Mustapha Mouloua.

Other Research Opportunities available:

a. **Institute for Simulation and Training (IST)** is an internationally recognized research institute that focuses on advancing modeling and simulation technology and increasing our understanding of simulation's role in training and education. Founded in 1982, IST is one of the nation's leading research centers for simulation, training, modeling and virtual reality research for both defense and commercial applications. IST employs full-time researchers and support personnel, part-time faculty researchers (many of whom have joint appointments in other departments), and numerous graduate and undergraduate students. Located in a dynamic, growing field, supported by government and industry sponsors, and charged with identifying new directions for this technology IST is helping to define the future of simulation and training.
The Institute for Simulation and Training is located in the Central Florida Research Park,

adjacent to the University of Central Florida in Orlando. Central Florida is noted for its dense population of high-tech companies engaged in many different aspects of simulation and training. More than 140 simulation and training companies have facilities in the Central Florida area. This base gives IST a broad range of resources and experiences from which to draw. The Naval Air Warfare Center Training System Division (NAVAIR Orlando), U.S. Army Simulation, Training, and Instrumentation Command (STRICOM), Air Force Agency for Modeling and Simulation and Marine Liaison Office (Trainers and Simulators) are also located in the Research Park within walking distance of IST.

b. The **Research Park** at UCF houses numerous other sites for gaining practical experience in the field of human factors, including both military and industry organizations.

Appendix B. HFC Faculty and Staff

UCF AE&HF faculty members have diverse academic backgrounds and research interests and provide training that integrates psychological theory and research, human factors design principles, and experimental. In addition to teaching and research, the faculty provides service to the community outside UCF, including the design of training procedures, interfaces, and systems, as well as external grant activity and consultation. Many also serve on editorial boards and are active in professional organizations. In addition to the faculty members listed below, there are several affiliate faculty members in other departments and research units of the University.

Al-Awar Smither, Janan, Ph.D.

Office: Psychology Building Ste 320 Rm 354
Phone: 407-823-5859
Email: Janan.Smither@ucf.edu

Dr. Janan Al-Awar Smither is a professor in the Human Factors and Cognitive Psychology program in the Department of Psychology. She joined UCF in 1990 from Florida Institute of Technology. She earned her Ph.D. from Johns Hopkins University. Professor Al-Awar Smither's areas of interest are in technology and aging. She is interested in conducting research investigating the use and design of technologies for an aging population.
Lab Website: www.sciences.ucf.edu/psychology/tal

Armioia, Mikala
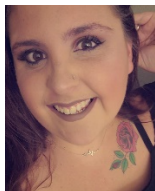
Office: Psychology Building Ste 301 Rm 301E
Phone: 407-823-3919
Email: Mikala.Armioia@ucf.edu

Mikala is the Human Factors and Cognitive Psychology program's Graduate Admissions Specialist. She has began as a student at UCF in 2014, and quickly became a staff member of the Psychology department. She has been assisting the HFC Program since 2018.

Bohil, Corey, Ph.D.

Office: Psychology Building Ste 320
Phone: 407-823-4344
Email: Corey.Bohil@ucf.edu

Dr. Corey Bohil is an associate professor in the Human Factors and Cognitive Psychology program in the Department of Psychology. He received his B.S. in psychology from Michigan

State University, his M.A. in cognitive psychology from Arizona State University, and his Ph.D. in cognitive psychology from the University of Texas at Austin. After completing a postdoctoral fellowship in the University of Illinois Psychology Department's quantitative division, he worked as a visiting assistant professor in the Department of Telecommunication, Information Studies & Media at Michigan State University. His research interests fall into two broad categories. 1) Applied Cognition - particularly human-computer interaction research focused on influencing cognitive and affective responses in simulated training environments, and 2) basic research in categorization and decision-making, focused mainly on decision-bound theoretic accounts of categorization performance. Cognitive modeling plays a central role in most of his work, along with a substantial emphasis on cognitive neuroscience.

Hancock, Peter, Ph.D.

Office: Psychology Building Ste 301 Rm 301D
Phone: 407-823-2310
Email: Peter.Hancock@ucf.edu

Dr. Peter Hancock is a Provost's Distinguished Research Professor in the Department of Psychology at the University of Central Florida. He currently holds a courtesy appointment as a Research Scientist at the Massachusetts Institute of Technology (MIT) and as an Adjunct Senior Research Scientist at the Transportation Institute of the University of Michigan. Professor Hancock is the author of over three hundred refereed scientific articles and publications. He has been continuously funded by extramural sources for every year of his professional career, including support from NASA, NIH, NIA, FAA, FHWA, and the US Navy and the US Army as well as numerous State and Industrial agencies. He is the Principal Investigator on the recently awarded Multi-Disciplinary University Research Initiative. In 2000, he was awarded the Sir Frederic Taylor Award of the Ergonomics Society of Great Britain for lifetime achievement. In 2001, he won the Franklin V. Occupational Safety and Ergonomics from the International Ergonomics Association. He was recently awarded a Jastrzebowski Medal of the Polish Ergonomics Society for the contributions to world ergonomics. Any additional information concerning Dr. Hancock and his research program can be found at http://mit.ucf.edu

Jentsch, Florian, Ph.D.

Office: Psychology Building Ste 300 Rm 301P
Phone: 407-882-0304 (Partnership II)
Phone: 407-823-3576 (Psychology)
Email: Florian.Jentsch@ucf.edu

Dr. Florian Jentsch is a Professor of Psychology at the University of Central Florida and the Director of its Team Performance Laboratory. He is also the Chair of the Department of Psychology. Dr. Jentsch received his Ph.D. in human factors psychology from the University of Central Florida in 1997. He also holds master's degrees in aeronautical engineering from the Technical University of Berlin and in aeronautical science from Embry-Riddle

Aeronautical University. His dissertation on training for junior commercial flight crew members won the American Psychological Association's 1998 George E. Briggs Award for the best dissertation in applied/experimental psychology, and he was also awarded the American Psychological Association's 2002 Earl Alluisi award for Early Career Achievement in applied/experimental psychology. Dr. Jentsch's research interests are in team performance, team training, human-robot-interaction, aviation human factors, cross-cultural research, research methodology, and simulation where he has co-authored over 120 publications, presentations, and technical reports. He has received grants and contracts from the U.S. Navy's Naval Air Warfare Center (NWAC-TSD), the Federal Aviation Administration (FAA), the Transportation Security Laboratory (TSL), the Army Research Laboratory (ARL), the Army's Simulation Training and Instrumentation Command (STRICOM), and the National Science Foundation (NSF).

The Rapidly Reconfigurable Line-Oriented Evaluations (RRLOE) scenario generation software developed with FAA funding under his direction has been distributed to over 50 airlines and aviation concerns, and it has been adopted by Airbus Industries as the cornerstone of their scenario-generation software. He also has consulted on system and software development projects for the FAA, the U.S. Navy, U.S. Army, NIH, NSF, and NASA. Lab website: http://www.tpl.ucf.edu/

Lighthall, Nichole, Ph.D.

Office: Psychology Building Ste 320 Rm 330
Phone: 407-823-2216
Email: Nichole.Lighthall@ucf.edu

Dr. Nichole Lighthall is an Assistant Professor of Psychology in the Human Factors and Cognitive Psychology program. She holds a B.A. in psychology from the University of California, Berkeley and a Ph.D. in gerontology from the University of Southern California. Before coming to the University of Central Florida, Dr. Lighthall worked as a postdoc in the Center for Cognitive Neuroscience at Duke University and was a postdoctoral fellow in the Duke Center for the Study of Aging and Human Development. The goal of her research is to develop a neural model of decision processing in human aging that can be used to identify age-related vulnerabilities and pathways to compensation. She is particularly interested in how age-related changes to cognitive and affective components of decision making impact decision processing and quality. In conducting this research, the Lighthall Lab utilizes an array of methodological approaches including behavioral manipulations, biomarker measurement, and functional magnetic resonance imaging.

Lab website: /http://sciences.ucf.edu/psychology/lighthalllab/

Mouloua, Mustapha, Ph.D.

Office: Psychology Building Ste 320 Rm 326
Phone: 407-823-2910
Email: Mustapha.Mouloua@ucf.edu

Dr. Mustapha Mouloua received his Maitrise (Post Graduate Diploma) in Industrial Psychology from the University of Algiers and his M.A. and Ph.D. degrees in Applied/Experimental Psychology from The Catholic University of America, Washington, DC. He was a research fellow from 1992 to 1994 at the Cognitive Science Laboratory of The Catholic University of America and became an assistant professor of psychology at UCF in 1994. Dr. Mouloua currently holds an appointment as senior research scientist at the Center for Applied Human Factors in Aviation. His research interests include attention and human performance, cognitive aging, automation, and aviation psychology.

Neider, Mark, Ph.D.

Office: Psychology Building Ste 320 Rm 327
Phone: 407-823-4201
Email: Mark.Neider@ucf.edu

Mark Neider is an Associate Professor in the Department of Psychology at the University of Central Florida. He received his B.A. in Psychology from Hofstra University. He also holds a M.A. in Psychology and a Ph.D. in Cognitive/Experimental Psychology from Stony Brook University. After completing his doctorate, Neider spent five years as a Postdoctoral Fellow at the interdisciplinary Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign. His research focuses on understanding human perception and cognition in realistic contexts, and then using that understanding to develop training interventions and technological innovations for improving human performance in real world tasks and environments. Neider's lab studies behavior across the age spectrum, from pre-adolescent children to the elderly. To examine behavior in the most realistic contexts possible, his lab utilizes a number of research methodologies including traditional behavioral paradigms, advanced eye tracking methods, driving simulation, and virtual reality. Lab website: http://www.markneider.com/

Schmidt, Joseph, Ph.D.

Office: Psychology Building Ste 320 Rm 355
Phone: 407-823-5860
Email: Joseph.Schmidt@ucf.edu

Joe Schmidt is an Assistant Professor in the Department of Psychology at the University of Central Florida. He received his Ph.D. in Experimental & Cognitive Psychology in 2012 from Stony Brook University. After receiving his doctorate, he spent two years as a Post-doctorate Research Fellow at the University of South Carolina's Institute for Mind and Brain. After his Post-doctorate position, he spent over a year as a Research Support Specialist at SR Research. His primary research interest focuses on the interaction of memory and attentional systems and how they affect our broader cognitive functions. By simultaneously tracking eye movements and recording EEG/ERP he can measure both overt and covert shifts of attention and related them to the amount and intensity of memory representations. Much of his research focuses on how changes to a target representation held in memory affect our ability to guide attention to a target object in the world around us. Given that memory and attentional processes are involved in most tasks, his research interests are quite broad. Some recent projects include investigating saccade-contingent change-blindness in video viewing, investigating oculomotor control and attentional processes in stroke patients who suffer from aphasia and alexia, relative to age-matched controls as well as college-aged controls, and investigating attentional processes in infants, children, adolescents, and adult mothers of children with autism spectrum disorder and/or fragile-X disorder. Lab website: http://sciences.ucf.edu/psychology/awmlab/

Roque, Nelson, Ph.D.

Office: Psychology Building Ste 320 Rm 327

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Nelson Roque is an Assistant Professor in the Department of Psychology's Human Factors and Cognitive Psychology Program. He received his PhD in Cognitive Psychology from Florida State University. Dr. Roque completed a two-year NIA T32 postdoctoral fellowship at Penn State University's Center for Healthy Aging, training in cognitive aging, psychosocial outcomes, and intensive longitudinal methods. Dr. Roque's research focuses on the cognitive process of visual attention, particularly, how to reliably measure it, how it relates to individual difference factors (e.g., age, sleep quality, lifetime pollutant exposure), and translating insights from theoretical work in visual attention to applied contexts (e.g., medication errors). His research makes use of mobile assessment methods (i.e., delivery of cognitive assessments online and via mobile devices), and passive sensing of context (e.g., GPS lifespace, naturalistic driving behaviors, and pollutant exposure) to better understand cognition in daily life across the lifespan. Lab website:
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Dr. James Szalma is a professor and the director of the Human Factors and Cognitive Psychology Ph.D. program in the psychology department at the University of Central Florida. He received a B.S. in Chemistry from the University of Michigan in 1990 and an MA in Human Factors & Cognitive psychology in 1997 from the University of Cincinnati. He received a Ph.D. in Human Factors & Cognitive psychology in 1999 from the University of Cincinnati. The theme for his laboratory, the Performance Research Laboratory (*PeRL*), is how variations in task characteristics interact with the characteristics of the person (i.e., personality, emotion, motivation) to influence performance, workload, and stress of cognitively demanding tasks. His primary research interests include signal/threat detection (e.g., friend/foe identification), shoot/no-shoot decisions in law enforcement and military scenarios, as well as automation and vigilance. He is currently investigating how operator characteristics and task characteristics interact to influence performance in human-agent systems utilizing adaptive automation, as well as the validity of Fuzzy Signal Detection Theory for performance evaluation in threat detection. He is also conducting research on the use of video game scenarios for training sustained attention.
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