Master of Science in Experimental Psychology
Rochester Institute of Technology, Department of Psychology

GRADUATE STUDENT HANDBOOK

1. Introduction and Definitions

1.1. The M.Sc. program in Experimental Psychology is a broad and flexible program that provides students for a solid stepping-stone into careers or continuing education in diverse areas of psychology and human factors/ergonomics. The program has two tracks, Experimental Psychology and Engineering Psychology. Students opting for the Engineering Psychology track will also receive an Advanced Certificate in Engineering Psychology in addition to their M.Sc. degree in Experimental Psychology provided they meet the Advanced Certificate requirements (see 3.8. in this Handbook). Both tracks require a thesis, which is the main component of the program.

1.2. Experimental Psychology emphasizes the application of experimental methods to the study of psychological phenomena. These phenomena cover an extremely broad range, but the focus on experimental methods places experimental psychology as a discipline to the basic end along the basic—applied continuum of scientific work. The Experimental Psychology Division (3) of the American Psychological Association defined its mission as “...to promote scientific inquiry through teaching and research, and to support experimental psychology through the advocacy and educational programs. The division membership consists of people who do basic and applied research in cognitive psychology, animal behavior processes and neuroscience as well as people who do experimental work in developmental, social, and other areas of psychology” (http://www.apa.org/divisions/div3/).

1.3. Engineering Psychology is a specialized sub-discipline of human factors/ergonomics, which is defined as “...the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data, and other methods to design in order to optimize human well-being and overall system performance” (definition adopted by the International Ergonomics Association in August 2000; http://www.iea.cc/01_what/What%20is%20Ergonomics.html). American Psychological Association Division 21—Applied Experimental and Engineering Psychology has defined the discipline thus: “Applied Experimental and Engineering Psychology is the application of psychological principles, knowledge, and research to improve the ability of humans to operate more effectively in a technological society. [Its] research focuses on people's interaction with or involvement with communication, decision making, and computer information systems, work places, energy and transportation systems, medical and health care settings, consumer product design, living environments, etc. The goal is safer, more effective, and more reliable systems through improved understanding of the user's requirements and performance capabilities” (http://www.apa.org/about/division/div21.asp).

2. Admission Requirements

2.1. Applicants to this program are expected to have at least 15 semester credit hours of course work in undergraduate psychology or related field (e.g., engineering, computer science, information technology), including one course in experimental psychology and another in statistics.

2.2. Admission decisions will be based on:

(1) a minimum GPA of 3.0 for undergraduate work;
(2) Graduate Record Examination (GRE) scores (taken within the last five years);
(3) two letters of reference from professors or supervisors;
(4) a biographical statement describing the applicant’s experience and goals regarding the program;
(5) a completed application for graduate admission to RIT.
3. **Curriculum**

3.1. The program curriculum consists of 5 required courses (See Appendix A for Psychology course descriptions), 3 of which pertain to thesis research, and 6 electives, of which 3 or 4 are Psychology electives and 2 or 3 are Institute electives.

3.2. The required courses are:

- PSYC 640 Graduate Statistics (3 cr)
- PSYC 642 Graduate Research Methods (3 cr)
- PSYC 751 Graduate Seminar (0 cr)
- PSYC 752 Thesis Proposal (3 cr)
- PSYC 753 Thesis (3 cr)

3.3. The Psychology electives are (choose 3 or 4):

- PSYC 641 Applied Psychology Methods (3 cr)
- PSYC 711 Graduate Biopsychology (3 cr)
- PSYC 712 Graduate Cognition (3 cr)
- PSYC 713 Graduate Developmental Psychology (3 cr)
- PSYC 714 Graduate Engineering Psychology (3 cr)
- PSYC 715 Graduate Perception (3 cr)
- PSYC 716 Graduate Social Psychology (3 cr)
- PSYC 717 Advanced Graduate Statistics (3 cr)

3.4. The Institute electives (choose 2 or 3) can be graduate courses offered by any unit at RIT. There are too many courses to list here and students should work with their faculty advisor on course selection.

Electives in the Engineering Psychology track include but are not limited to:

- ISEE 730 Biomechanics (3 cr)
- ISEE 731 Advanced Topics Human Factors (3 cr)
- ISEE 732 Systems Safety Engineering (3 cr)
- HCIN 610 Foundations of Human-Computer Interaction (3 cr)
- HCIN 620 Information and Interaction Design (3 cr)
- HCIN 630 Usability Testing (3 cr)
- HCIN 700 Current Topics in HCI (3 cr)
- HCIN 705 Topics in HCI for Biomedical Informatics (3 cr)
- HCIN 715 Agent-based and Cognitive Modeling (3 cr)
- HCIN 720 Designing User Experiences for Internet-enabled Devices (3 cr)
- HCIN 722 Human Computer Interaction with Mobile Devices (3 cr)
- HCIN 730 User-Centered Design Methods (3 cr)
- HCIN 735 Collaboration, Technology, and the Human Experience (3 cr)

3.5. Other relevant courses may also be chosen as electives by approval of the graduate coordinator.

3.6. **Nominal program schedule**:

| 1st fall semester: | PSYC 640 Graduate Statistics (3 cr) |
|                   | PSYC 751 Graduate Seminar            |
|                   | 1 PSYC Elective (3 cr)               |
|                   | 1 Institute Elective (3 cr)          |

| 1st spring semester: | PSYC 642 Graduate Research Methods (3 cr) |
|                     | PSYC 752 Thesis Proposal (3 cr)           |
|                     | 1 PSYC Elective (3 cr)                    |
|                     | 1 Institute Elective (3 cr)               |
1st summer: Co-op or Thesis work
2nd fall semester: PSYC 753 Thesis (3 cr)
                  1 PSYC Elective or 1 Institute Elective (3 cr)

3.7. Experimental Psychology Track

Students opting for the Experimental Psychology track have a wide variety of courses in Psychology and related disciplines available to them. Each student will work with the Graduate Coordinator and a faculty member identified during the application review process to select courses and develop thesis ideas. The Graduate Seminar requirement allows each student to sample the research possibilities in the Department of Psychology and across the institute. A potential Thesis Advisor should be identified by the end of Fall Semester in the 1st year in the program.

3.8. Engineering Psychology Track

Students opting for the Engineering Psychology track of the program should take the following 3 courses as their Psychology electives:

PSYC 712 Graduate Cognition
PSYC 714 Graduate Engineering Psychology
PSYC 715 Graduate Perception

In addition, students should choose 2 courses relevant to their interests and the broad Engineering Psychology discipline as Institute electives. These five courses will also fulfill the requirements for an Advanced Certificate in Engineering Psychology that the students will earn in conjunction with their M.Sc. degree.

3.9. Co-op option

The M.Sc. degree program in Experimental Psychology has an optional cooperative education component. It is generally taken in the summer quarter of the first year of the program. The goal of co-op education is to provide for students the experiential learning that integrates with classroom education. Co-op education may be taken at any business, research, or industrial setting.

4. Thesis

4.1. Thesis research must add to the existing body of knowledge on a given subject. That is, the thesis research must represent original work or deal with a research question that has not been answered before. Replication of previous research is acceptable as long as the work adds new knowledge to previous results.

4.2. Thesis research must be empirical. That is, the research must be based on data, which are properly analyzed and interpreted. The data, however, may come from any applicable source; the student may run an experiment and collect his or her own data, or the student may analyze existing data to answer novel research questions about them, or the research may deal with metadata (i.e., data about data).

4.3. For students pursuing the Engineering Psychology track the thesis topic must have applied value. The distinction between applied and basic research is not dichotomous; rather, applied and basic research are at the opposite ends of a continuum allowing much flexibility in determination of the scope and specific topic of the thesis. However, if the thesis topic lies towards the basic end of the aforementioned continuum, the research should nevertheless be capable of suggesting practical applications; conversely, applied research should always be based on the state of the art of theories of perception and cognition as well as make a contribution to advancing our knowledge about the underlying principles and theoretical constructs of human behavior and performance.

4.4. The scope and the depth of analysis, and the significance of the topic must be sufficient to warrant publication of the results in a peer-reviewed scientific journal or conference proceedings of similar
stature. Thus, the research must be of sufficient quality so that the work may reasonably be expected to get accepted for publication. Publication of the research is not required for the degree, but is strongly encouraged.

4.5. Thesis process.

4.5.1. Graduate Seminar (PSYC-751) is designed to allow students to explore potential thesis topics and make connections with faculty who share research interests with them. This course will be completed during the first fall semester.

4.5.2. In Thesis Proposal (PSYC-752) students will create a detailed research plan for their thesis research; this course will culminate in a thesis proposal approved by the student’s thesis committee formed as part of the Proposal course. The students must present their proposed research publicly (oral presentation) before the proposal can be approved. If relevant, Institutional Review Board approval for human subjects research will be initiated at this time.

4.5.3. In the Thesis (PSYC-753) course students will collect data, analyze them, and complete their thesis documents in partial fulfillment of the degree requirements. Continuation of thesis may be repeated as necessary to complete the thesis research.

4.5.4. The program can be completed in three semesters, excluding summer, with the thesis research occupying a significant proportion of that time. It is likely most students will take 4 semesters to complete all requirements.

4.5.5. Thesis research is not to begin in earnest until:

(1) The thesis proposal has been approved by the committee, AND
(2) The research protocol has been reviewed and approved by RIT’s Human Subjects Research Office Institutional Review Board (IRB).

4.5.6. The final thesis must be unanimously approved by the thesis committee. Final (oral) defense of the thesis will be public. After the final defense and possible required revisions to the thesis, it will be signed by the thesis committee members indicating final approval.

4.6. Thesis proposal

4.6.1. The thesis proposal will be developed collaboratively between the student, the thesis advisor, and thesis committee. The thesis proposal is produced while students complete PSYC-752, normally during the first spring semester in the program.

4.6.2. Following the development of the thesis proposal, and before registering for PSYC-753, a graduate thesis committee must be in place. The thesis proposal must be presented to and accepted by the thesis committee. The students must present their proposed research orally before the proposal can be approved. The main purpose of the thesis proposal is to define the scope of the thesis project and obtain approval for the student’s topic from the thesis committee.

4.6.3. The thesis proposal must contain the following elements (see Appendix B):

(1) The thesis title, the name of the thesis faculty advisor, and the names of the faculty members that participate in the thesis committee as readers. Committee members indicate their approval of the thesis topic by signing the cover page.

(2) A review of relevant literature. The literature review serves two distinct purposes. First, it ensures that the research is indeed original by searching the existing body of literature for similar studies conducted in the past. From this it follows that the literature search must be exhaustive. Second, review of relevant literature will allow the candidates to amass
sufficient knowledge about their topic to be able to carry out the empirical part of their thesis research.

(3) A research plan, including a proposed timeline of major research activities, and a detailed description of the planned research method are required. The method must furthermore include the following:

(a) Participants: Description of the procedures planned for finding and recruiting subjects or obtaining pre-existing data or materials.

(b) Apparatus/materials: Description of the experimental apparatus or other materials; here the student should also indicate needs for equipment or software or other resources necessary for the research.

(c) Procedure: Detailed description of the experimental procedures. In some cases a ‘Design’ section may be included. This comprises a description of the experimental design or the analyses of pre-existing data; this section must allow for assessment of the validity of the proposed research.

4.7. **Thesis committee**

4.7.1. The thesis committee shall consist of at least three members; a thesis advisor and at least two readers. At least one member of the thesis committee must be a faculty member in the Department of Psychology.

4.7.2. During PSYC-751 students will determine their thesis advisor. An advisor will be assigned to the student during the admission process; however, Graduate Seminar provides the student with the opportunity to select a thesis advisor according to a match between the student’s thesis topic and faculty expertise. The thesis advisor, who will usually be a faculty member of the Department of Psychology, will assist the student with planning the thesis research, day-to-day guidance and supervision of the student through the experimental design and setup, data collection and analysis, and writing phases of the thesis. See Appendix C.

4.7.3. The student and his or her advisor shall invite at least two readers to the student’s thesis committee. The final committee composition shall be approved by the Graduate Coordinator. The primary role of the readers shall be to ensure that the thesis meets the requirements as stated above and they shall provide constructive criticism and commentary on the written thesis and presentations. The readers must approve the thesis proposal as well as the final thesis. In some cases there may be a greater role for one reader than the other, or all committee members will have significant input on the project. The designated thesis advisor is responsible for ensuring the relative roles of the different committee members are clearly delineated.

4.7.4. At least one member in the student’s thesis committee must be a full-time faculty member of the Department of Psychology who shall be responsible for ensuring that the thesis meets all the requirements indicated in this handbook and RIT policy manuals.

4.7.5. If a committee member from outside the Department of Psychology provides expertise essential for the project, this person shall be invited by the thesis advisor and approved by the Graduate Coordinator. An eligible reader from outside the Department of Psychology or the Institute must be a nationally/internationally recognized expert on the topic of the student’s thesis whose participation will be demonstrably advantageous to the student’s work.

4.7.6. Changes in the thesis committee composition may occur during completion of the thesis. These exceptional cases will require collaboration with the Graduate Coordinator and/or Department Chair. The Chair will have to be involved in cases where the Graduate Coordinator is a member of the thesis committee.
5. Procedures

5.1. Application procedure. Admission requirements are listed in section 2 (above). The student must submit an RIT graduate application (all application materials and information are available online at: http://www.rit.edu/~625www/grad_admission.html). Students may apply any time of the year but applications are reviewed and admission decisions made in March each year. If a student seeks a Spring semester start, this must be clearly articulated in the admission application.

5.2. Maintenance of graduate standing. The student must maintain a minimum graduate GPA of 3.0 and be enrolled at least part time in the program to be considered a graduate student in good standing. Continuous registration is required (authorized co-ops satisfy this requirement, as does registration for courses and/or completion of full-time equivalence paperwork).

5.3. To remain enrolled students must show adequate progress towards the completion of their thesis. Any student who fails to maintain adequate progress towards the completion of a thesis and is not granted a leave of absence may at any time be terminated from the program on the recommendation of the thesis committee, the Graduate Coordinator and the Department of Psychology Chair. The Master's thesis must be begun (e.g. the written proposal accepted and presented) before the start of the fall semester of the student's second year in the program.

5.4. It is recognized that both the faculty members on a thesis committee and the student have obligations related to the smooth conduct of the MS process. To that end, it is expected that the following guidelines will be observed:

5.4.1. There will be a minimum of two weeks between the completion of the thesis proposal and the thesis proposal meeting with a student’s thesis committee. The thesis committee should be given a minimum of one week to read and review the thesis proposal and return written comments to the student. The date of the thesis proposal meeting can be scheduled for a minimum of one week after the committee has read and responded to the thesis proposal. If a committee member cannot meet this deadline, she/he must inform the student and the Graduate Coordinator immediately and negotiate an alternative acceptable to all parties.

5.4.2. There will be a minimum of four weeks between the completion of the MS thesis draft and the scheduled final thesis oral. This includes a minimum of two weeks for the thesis committee members to read and review the thesis draft. The committee members should write and submit to the student and thesis advisor their substantive comments, suggestions, and changes on the thesis draft so that the student can go over them with the thesis chair prior to the final thesis oral. (Substantive changes include: extensive new data analyses, extensive alternative data analyses, and extensive alternative interpretations.) It is the student’s responsibility to provide the committee members with a current draft of the thesis prior to final oral defense.

5.4.3. The date of the final thesis oral defense must be scheduled a minimum of two weeks after the committee has read and responded to a final draft of the thesis. If a committee member cannot meet this deadline she/he must inform the student and the Thesis Chair immediately and negotiate an alternative acceptable to all parties.

5.5. Time limits: The student must successfully complete all required courses within 7 years of the time of initial registration for graduate study.

5.6. Interruption of study: Existing RIT regulations concerning leave of absence apply. A leave of absence may be requested by a student in preference to withdrawal from the Institute.

5.7. Students must be registered for Continuation of Thesis as a minimum during the semester they complete the oral defense of the thesis. This does not supersede the requirement of continuous enrollment to be considered to be in good standing.
6. **Professional Ethics**

6.1. Publication credit: The Ethical Principles of Psychologists and Code of Conduct adopted by the American Psychological Association (APA) on June 1, 2003, shall be observed.

6.1.1. Psychologists take responsibility and credit, including authorship credit, only for work they have actually performed or to which they have substantially contributed.

6.1.2. Principal authorship and other publication credits accurately reflect the relative scientific or professional contributions of the individuals involved, regardless of their relative status. Mere possession of an institutional position, such as department chair, does not justify authorship credit. Minor contributions to the research or to the writing for publications are acknowledged appropriately, such as in footnotes or in an introductory statement.

6.1.3. Except under exceptional circumstances, a student is listed as principal author on any multiple-authored article that is substantially based on the student's M.Sc. thesis. Faculty advisors discuss publication credit with students as early as feasible and throughout the research and publication process as appropriate.
Appendix A: Graduate Course Descriptions

**PSYC 640 Graduate Statistics**: This course introduces students to advanced inferential parametric and non-parametric data-analysis techniques commonly used in psychological research. The focus is on the conceptual understanding of these statistics, how different statistical procedures are applied in different research methods, how to perform analyses, how to interpret the results in the context of the research question, and how to communicate these results. Topics include one- and two-sample inferential procedures, interval estimation, correlation, nonparametric tests, linear regression, and analysis of variance.

**PSYC 641 Applied Psychology Methods**: This course explores various types of applied research methods as well as important methodological issues and concepts in areas of applied psychology. Methodologies studied include experimentation, quasi-experimentation, content analysis, surveys, and interviews. Methodological issues cover research ethics, reliability, threats to internal and external validity, demand characteristics, volunteer participant problems, and issues in sampling.

**PSYC-642 Graduate Research Methods**: This course provides students with sufficient background in the skills and knowledge necessary to be able to conduct psychological research on a wide variety of problems. In addition to introducing students to numerous research methods used in the discipline, the course will also assist students in planning their thesis research proposal. In parallel with covering core topics in research methodology (such as varieties of data, the role of theory and models in science, psychophysiological methods, subjective methods, and experimental design) the course is designed to guide students through the process of creating a feasible research proposal. Students will also use data to test their designs and practice their analyses.

**PSYC 711 Graduate Biopsychology**: A graduate level introduction to the field of behavioral neuroscience, the study of neurobiological basis of cognition and behavior. Topics include neuroanatomy and physiology, localization of function, brain injury, research methods in behavioral neuroscience, and biological basis of learning, language, memory, emotion, conscious states, sexual behavior, etc.

**PSYC 712 Graduate Cognition**: This course will survey theoretical and empirical approaches to understanding the nature of the mental processes involved in attention, object recognition, learning and memory, reasoning, problem solving, decision-making, and language. The course presents a balance between historically significant findings and current state of-the-art research. Readings that have structured the nature and direction of scientific debate in these fields will be discussed. The course also includes discussions of methodology and practical applications. Students will have opportunities to develop their research skills and critical thinking by designing research studies in cognitive psychology. This course is an elective for students in the Applied Experimental and Engineering Psychology M.Sc. program and students in the Experimental Psychology M.Sc. program.

**PSYC 713 Graduate Developmental Psychology**: This course is designed to enhance students’ knowledge and skills with regard to infant, child, and adolescent development. We will examine a variety of topics that relate to the physical, cognitive, and social-emotional development of children and adolescents in the context of classic and current theory. We will also explore issues such as attachment, resiliency, and policy issues that pertain to positive child and adolescent development. Students will gain an enhanced knowledge of the sequence of child development and the processes that underlie it by studying child development from a chronological approach. Theories that discuss the various domains of development will be examined through each age period. This course will emphasize the interdependence of all domains of development and contribute to an appreciation of the interrelatedness of theory, research, and applications. This course is an elective for students in the Experimental Psychology M.Sc. program.

**PSYC 714 Graduate Engineering Psychology**: In this course the students will learn to recognize the integrated (systems) nature of Engineering Psychology, the centrality of human beings in systems design, and to use the topics covered and the available knowledge base to adapt the environment to people. This
course will cover several fundamental models of human information processing in the context of human-system interactions. The models may include but are not limited to Signal Detection Theory, Information Theory, theories of attention, both normative and naturalistic decision-making models, Control Theory, and the Lens Model of Brunswick, as well as models of the human as a physical engine, that is, anthropometry, biomechanics, and work physiology. Most topics include readings in addition to the course text as well as a lab exercise with a detailed lab report.

**PSYC 715 Graduate Perception**: The course is designed to provide students with a deeper understanding of topics in perception. This course will be organized such that students will work in groups on various projects as well as covering topics through readings and classroom discussion. The topics may include, but are not limited to: spatial frequency perception; afferents, visual illusions and their relationship to cortical function and pattern perception; color perception; depth and motion perception; higher order perception such as face and object recognition; and music and speech perception. The goal is to cover current research and theories in perception, looking at current developments and their antecedents. The course will be divided into various modules. Students will be assigned readings relevant to each section of the course, and will be expected to master the major concepts. Group discussion of the readings will complement lectures where the instructor will present relevant background material. There will also be laboratory time for the students, where they will examine empirical findings in perception, and develop their research skills in the field.

**PSYC 716 Graduate Social Psychology**: This course explores topics related to understanding individuals in a social context. Topics may include, but are not limited to: Social Perception and Social Cognition; Attitudes; Social Identity; Prejudice and Discrimination; Interpersonal Attraction; Close Relationships; Social Influence; Prosocial Behavior; Aggression; Group Behavior; Artifacts and Methodological Issues in Social Psychology. Course format is seminar focused on reading assigned texts each week, writing reaction papers, and participating in discussion. Students will also conduct a study on the topic of their choice and present their findings both in an oral and written format.

**PSYC 717 Advanced Graduate Statistics**: This course introduces students to more advanced inferential parametric and non-parametric data-analysis techniques commonly used in psychological research, but not covered (or not covered in depth) in the Graduate Statistics course. These techniques may include, but are not limited to: Reliability Analysis, Multiple Regression, Discriminant Analysis, Logistic Regression, Factor Analysis, Analysis of Covariance, Multivariate Analysis of Variance, Contrast Analysis, Mediator and Moderator Variable Analysis, Non-Parametric Tests, and Multi-level Modeling. The focus is on the conceptual understanding of these statistics, how different statistical procedures are applied in different research methods, how to perform analyses, how to interpret the results in the context of the research question, and how to communicate these results. (Pre-requisite: PSYC640).

**PSYC 751 Graduate Seminar**: The guiding principle of Graduate Research Seminar is that it provides students the opportunity to begin examining potential thesis topics during the student's first semester in the program. The course will involve faculty presentations of their research offered weekly through the semester. Prerequisite: Admission to the M.Sc. in Experimental Psychology.

**PSYC 752 Thesis Proposal**: The Thesis courses will vary widely but will fulfill the work plan agreed by the student and the advisor. The guiding principles of the Thesis Proposal course are to initiate thesis research including selecting a thesis advisor, choosing and defining a topic, surveying relevant research literature, and planning the research. To complete the course, the student will successfully submit and defend a thesis proposal, which is a detailed and complete plan of the thesis research. The thesis proposal should include exhaustive review of relevant literature, statement of the student's thesis, formulation of hypotheses, operational definitions of independent and dependent variables, and a detailed procedure for carrying out the research. The proposal may also include a section on anticipated results with a detailed plan for analysis of data. Prerequisites: Permission from instructor.
**PSYC 753 Thesis:** The Thesis courses will vary widely but will fulfill the work plan agreed by the student and the thesis advisor. The guiding principle of the Thesis course is to complete the thesis research proposed in Thesis Proposal. The Thesis course consists of carrying out the thesis research, including collection and analysis of data, and completion and public defense of the thesis. Prerequisites: Permission from instructor.
Appendix B: Thesis Proposal Checklist

☐ The proposal contains (1) the thesis title, (2) the name of the thesis faculty advisor, and (3) the names of two faculty members that participate in the thesis committee as readers.

☐ The proposed research represent original work, as demonstrated by an exhaustive review of relevant literature.

☐ The proposal clearly describes the theoretical foundation it is based on as well as its contribution to advancing knowledge about the underlying principles and theoretical constructs of human behavior and performance.

☐ The proposal contains a statement of thesis and objectives and significance of the research.

☐ The proposal contains a research plan, including a proposed timeline of major research activities.

☐ The proposal contains a detailed description of the planned research method.

☐ The proposal contains description of the procedures planned for finding and recruiting subjects OR for obtaining pre-existing data or materials.

☐ The proposal contains description of the experimental apparatus or other materials and possible needs for equipment or software or other resources necessary for the research.

☐ The proposal contains a detailed description of the experimental design OR the analyses of pre-existing data.

☐ The proposal contains a detailed description of the experimental procedures.

☐ The proposal clearly describes the independent variables and how they are to be manipulated, OR the data sources the research is based on.

☐ The proposal clearly describes the dependent variables and how they are to be measured, OR the metadata and how they are derived from pre-existing data.

☐ The proposal suggests practical applications for the results of the research (Engineering Psychology track).

☐ The proposed research appears to be of sufficient significance and quality for possible publication.
Appendix C: Thesis Process

Start: Review of Past Research
- Un- or underresearched areas, controversies in the literature
- Theoretical foundations
- Integration
- Practical applications
- Verification

1st Review of Existing, Published Research Literature
- Discovery of a Research Problem

2nd Review of Existing, Published Research Literature
- Premises are validated by past research
- Propositions from which the thesis follows
- Statement of the Thesis
- Operationalization of relevant variables
- Hypotheses
- Hypotheses related to past research

3rd Review of Existing, Published Research Literature
- Choice of independent variables and their levels of manipulation, and dependent variables
- Experimental Design
- Step-by-step procedure to carry out the research
- Experimental Procedure
- Measures
- Data Collection
- Exploratory data analysis, plots and graphs
- Descriptive Statistics
- Confirmation of observed trends and effects
- Inferential Statistical Analyses
- Inferences from results
- Conclusions

Start: Own Intuition and Novel Ideas
- Verification of the originality of the idea
- Premise 1
- Premise 2
- Premise 3
- Premise n

So What?
Relevance/Importance of the Topic
Not established
Established

Adopted March 15, 2013.