Psychological and Quantitative Foundations, Ph.D.

Counseling Psychology

The Doctor of Philosophy program in psychological and quantitative foundations with a subprogram in counseling psychology requires a minimum of 111 s.h. of graduate credit. All students must study full time. The program is fully accredited by the American Psychological Association.

The program’s goal is to prepare counseling psychologists who will promote psychology as a science and contribute to the advancement of the profession. The faculty endorses a scientist/practitioner model of training and expects students to become competent researchers and proficient practitioners. Graduates find positions in a variety of settings, including higher education, counseling centers, clinics, private practice settings, and hospitals.

Students in the program must show appropriate levels of emotional balance and interpersonal skills and act within the American Psychological Association's Ethical Principles of Psychologists. For more information, contact the program director.

The Ph.D. in psychological and quantitative foundations with a subprogram in counseling psychology requires the following work.

Research Requirement

All of these:

- PSQF:6243 Intermediate Statistical Methods 4
- PSQF:7331 Seminar: Educational Psychology I - Current Topics (when subtitle is qualitative educational research methods) 3
- PSQF:7394 Supervised Research in Counseling Psychology (at least 4 s.h. is required; students enroll for 1 s.h. per semester for up to four semesters) 4

One of these:

- PSQF:6244 Correlation and Regression 4
- PSQF:6246 Design of Experiments 4

Qualitative and quantitative methodology is discussed in PSQF:7394 Supervised Research in Counseling Psychology, which is directed each semester by faculty advisors. Research from each student is discussed and evaluated, critiqued, and supported.

Basic Psychology

All students are required to have a thorough grounding in the basic discipline of psychology. This may be achieved through a minimum of 3 s.h. of credit in each of the following four areas: biological bases of behavior, cognitive-affective bases of behavior, social bases of behavior, and history and systems.

Students complete an additional 6 s.h. in the area of individual differences.

Counseling Psychology Core

All of these:

- PSQF:6223 & PSQF:6225 Introduction to Counseling Psychology Practice/Research I-II 6
- PSQF:6235 Multicultural Counseling 3
- PSQF:7305 Psychotherapy I: Dynamic and Phenomenological Approaches 3
- PSQF:7306 Psychotherapy III: Work Psychology and Career Interventions 3
- PSQF:7309 Personality Assessment 3
- PSQF:7310 Intelligence Assessment 3
- PSQF:7356 Process and Outcomes in Counseling Psychotherapy 3
- PSQF:7365 Psychotherapy II: Cognitive and Behavioral Approaches 3
- PSQF:7434 Practicum in Counseling Psychology 3
- PSQF:7452 Leadership, Consultation, and Supervision 3
- PSQF:7453 Advanced Practicum in Counseling Psychology (repeatable) 1-3
- PSQF:7465 Issues and Ethics in Professional Psychology 3

Students must enroll in practicums to reach a specified level of client contact, supervision, and additional experience hours. The first practicum’s site is typically University Counseling Service. Subsequent placements at other sites must have prior approval of the counseling psychology faculty. Students must successfully complete one semester of PSQF:6299 M.A. Project: Portfolio/Internship/Practicum before enrolling in PSQF:7453 Advanced Practicum in Counseling Psychology.

Electives

Elective courses are determined in collaboration with the major advisor.

Internship

Students spend a calendar year in an internship setting approved by the counseling psychology faculty. The faculty determines student readiness to apply for the internship based on completion of all or almost all required course work, satisfactory progress toward completion of the portfolio requirement, and successful completion of practicum requirements. Internships usually require geographic relocation.

Comprehensive Exam and Dissertation

The comprehensive examination consists of an oral and a written component. The exam includes research and practice elements. For more information, contact the program coordinator.
The dissertation research study is planned in collaboration with the student's major advisor. Dissertation credit ranges from 12 to 15 s.h.

**Admission**

Applicants must meet the admission requirements of the Graduate College. Preference is given to applicants who have an undergraduate g.p.a. above 3.00 and a graduate g.p.a. above 3.50; an undergraduate major, minor, or substantial coursework in psychology; a Graduate Record Examination (GRE) General Test verbal score of 152 or higher, quantitative score of 151 or higher, and analytical writing score of 3.5 or higher; and previous research and counseling experience.

Students should submit a Graduate College application form; official transcripts of all previous college work; an official report of GRE General Test scores (the GRE advanced test in psychology is recommended but not required); a personal statement outlining career goals and reasons for seeking advanced training in counseling psychology; and three letters of recommendation from individuals qualified to assess the applicant’s potential for completing the doctoral program. The faculty encourages applications from minorities, women, and persons from a wide range of backgrounds and academic preparation. The program typically accepts between five and eight students each year.

Students begin the program in fall. Application deadline is December 1; admission decisions usually are made by March 1. Applicants are invited to campus for interviews before final selection.

**Educational Measurement and Statistics**

The Doctor of Philosophy program in psychological and quantitative foundations with a subprogram in educational measurement and statistics requires a minimum of 90 s.h. of graduate credit. The program prepares students for senior professional positions in educational measurement, evaluation, and statistical methods. Graduates find employment in colleges and universities, state and federal agencies, large public and private school systems, test publishing firms, and research centers.

During the first year of graduate study, a student and the advisor plan a program of study that is appropriate for the student’s interests and vocational objectives. The typical program involves advanced work in educational measurement, data analysis methods, research methodology, and educational psychology. Work in other University of Iowa departments is encouraged.

Students who concentrate in statistics and intend to teach at the college level take courses in the mathematical theory of statistics. Those who concentrate in educational measurement and evaluation take appropriate courses in curriculum, counseling, or higher education. All students are required to develop familiarity with computer programming techniques and equipment.

Students who enter the program without completing an M.A. thesis must complete a substitute project before taking the Ph.D. comprehensive examinations.

After completing most of their course work, students take the comprehensive examination, which typically consists of three 3-hour written examinations on educational measurement, applied statistics, and program evaluation, or approved substitute areas, such as educational psychology or mathematical statistics, in which a student has completed at least 9 s.h. of course work. In place of one written examination, the student’s committee may assign a project involving analytical and evaluative skills, or research creativity. The written examinations are followed by an oral examination in which the committee seeks further evidence of the student's command of the three fields. A single decision is made on all aspects of the comprehensive examination.

Work for the Ph.D. concludes with the dissertation, which is included in the 90 s.h. required for the degree.

**Research Requirement**

One of these:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:6220</td>
<td>Quantitative Educational Research Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>An equivalent course comparable in content and level of rigor, such as EALL:5150</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Quantitative Requirements**

This course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:6243</td>
<td>Intermediate Statistical Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

Two of these:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:6244</td>
<td>Correlation and Regression</td>
<td>4</td>
</tr>
<tr>
<td>PSQF:6246</td>
<td>Design of Experiments</td>
<td>4</td>
</tr>
<tr>
<td>PSQF:6247</td>
<td>Nonparametric Statistical Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:6249</td>
<td>Factor Analysis and Structural Equation Models</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:6252</td>
<td>Introduction to Multivariate Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>EPLS:6206</td>
<td>Research Process and Design</td>
<td>3</td>
</tr>
<tr>
<td>EPLS:6209</td>
<td>Survey Research and Design</td>
<td>3</td>
</tr>
<tr>
<td>EPLS:6370</td>
<td>Quantitative Methods for Policy Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Qualitative Requirements**

One of these (may be taken on a non-graded basis with approval of a student's program and advisor):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:7331</td>
<td>Seminar: Educational Psychology I - Current Topics (when subtitle is qualitative educational research methods)</td>
<td>3</td>
</tr>
<tr>
<td>EDTL:7070</td>
<td>Introduction to Qualitative Methods in Literacy Research</td>
<td>3</td>
</tr>
<tr>
<td>EPLS:7373</td>
<td>Qualitative Research Design and Methods</td>
<td>3</td>
</tr>
<tr>
<td>RCE:7338</td>
<td>Essentials of Qualitative Inquiry</td>
<td>3</td>
</tr>
</tbody>
</table>

An equivalent course comparable in content and level of rigor

One of these:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:5165</td>
<td>Introduction to Program and Project Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:6265</td>
<td>Program Evaluation</td>
<td>3</td>
</tr>
</tbody>
</table>
psychology requires a minimum of 72 s.h. of graduate credit. Educational psychology is characterized by empirical research and theory typical of the social and behavioral sciences. The program is designed to help students master the core content and methods of educational psychology and acquire the depth of knowledge and methodological sophistication necessary for original research that contributes to the discipline.

Students work closely with their advisor to develop a plan of study and define a program that matches their goals and interests. Those who begin the program after earning a master’s degree or with course work from another program may be able to waive some of the Ph.D. program requirements. Students who enter the program without completion of a M.A. thesis are required to complete a research practicum in which students assist with and later design and carry out original research during their first or second year. Students who have completed an empirical M.A. thesis acceptable to the faculty may omit the second-year project.

The program of study includes substantive areas within educational psychology and the learning sciences, including courses in cognition, development, learning theory, and the design of instruction, learning environments, and learning technologies. Other learning opportunities include a research practicum in which students assist with and eventually design and carry out original research, a slate of research courses that meet the College of Education’s research requirements, a minor area of the student’s choice, and a dissertation in the student’s area of interest.

Research Requirement

The heart of educational psychology as a field is the creation, dissemination, and use of rigorous research to better understand and address educational issues. While many of the required courses address various aspects of the guiding principles set out by the National Research Council, students engage in the following course work and research-related activities.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:6220</td>
<td>Quantitative Educational Research Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:6243</td>
<td>Intermediate Statistical Methods</td>
<td>4</td>
</tr>
<tr>
<td>PSQF:7331</td>
<td>Seminar: Educational Psychology I - Current Topics (when subtitle is Qualitative Educational Research Methods)</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:6244</td>
<td>Correlation and Regression</td>
<td>4</td>
</tr>
<tr>
<td>PSQF:6246</td>
<td>Design of Experiments</td>
<td>4</td>
</tr>
<tr>
<td>PSQF:6247</td>
<td>Nonparametric Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:6252</td>
<td>Introduction to Multivariate Statistical Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

Research Project

In consultation with a faculty member, students design, implement, and present an original second-year research study. This experience provides the opportunity to conduct a pilot study that will strengthen their thesis in terms of methods, instruments, theoretical grounding, or focus of research question. Student presentations of their research are open to the public. Students are encouraged to submit their...
study results for broader dissemination at a local, regional, or national conference.

For students who have received approval to omit this requirement because of an empirical thesis that is acceptable to the educational psychology faculty, an additional research course may be required.

PSQF:6230 Research in Educational Psychology 3

**Required Courses**

All of these:
- PSQF:6200 Educational Psychology 3
- PSQF:6205 Design of Instruction 3
- PSQF:6281 Cognitive Theories of Learning 3
- PSQF:7493 Ph.D. Thesis in Psychological and Quantitative Foundations (minimum requirement) 10

**Core Courses**

Selection of courses depends on a student's area of specialization.

At least 15 s.h. from these:
- PSQF:6203 Tools and External Representations in Learning Processes 3
- PSQF:6204 Foundations of the Learning Sciences 3
- PSQF:6206 Advanced Child Development 3
- PSQF:6208 Designing Educational Multimedia 3
- PSQF:6214 Design of Learning Environments: Theory, Practice, and Method 3
- PSQF:6215 Web-Based Learning 3
- PSQF:6275 Constructivism and Design of Instruction 3
- PSQF:7331 Seminar: Educational Psychology I - Current Topics (topics vary; may be repeated if content is related to educational psychology) arr.

**Electives**

Students may take up to 9 s.h. of elective course work. Students can take PSQF:6217 Seminar in College Teaching and/or additional research courses. Other courses may be included in consultation with the advisor.

**Minor Area**

Students must complete a minimum of 12 s.h. that constitute a coherent program of course work outside educational psychology and beyond the courses listed above. The minor area may be from a foundation discipline such as mathematics education, educational philosophy, or program evaluation. Courses must be numbered 5000 or above, can span across departments and colleges, and must be consistent with a plan approved by a student's advisor.

**Comprehensive Examination**

The Ph.D. comprehensive examination emphasizes competence and depth in one or more narrowly defined areas of research and theory. Students choose from three options in consultation with their advisor and with the approval of the examining committee, composed of five faculty members and does not necessarily include the same faculty members as the dissertation committee. The options are a review article, an extended research activity, or a traditional comprehensive examination. For details of each option's requirements, contact the Department of Psychological and Quantitative Foundations.

**Admission**

Applicants must meet the admission requirements of the Graduate College, including the minimum grade-point average. They must have a verbal score of at least 150 and a quantitative score of at least 152 on the Graduate Record Examination (GRE) General Test; successful applicants usually score higher. International applicants whose first language is not English must submit acceptable scores on the Test of English as a Foreign Language (TOEFL). Applicants who do not meet all admission requirements may be granted conditional admission on the basis of other evidence, such as high grade-point average, strong academic preparation, and highly supportive recommendations. Conditional admission is rare.

Admission is for fall entry. Application deadline is January 15; late applications might not be considered. Review of applications begins soon after, when applicants who wish to be considered for fellowships and other awards are screened. Admission decisions are announced approximately six weeks after the application deadline.

Applicants who accept admission or financial aid and do not relinquish either one on or before April 15 may not solicit or accept another offer. Offers made by the program after April 15 include the provision that the offer is void if the applicant has accepted and continues to hold a previous offer from another program listed in the American Psychological Association publication Graduate Study in Psychology and Associated Fields. This policy is consistent with standards set by the association's Board of Educational Affairs.

**School Psychology**

The Doctor of Philosophy program in psychological and quantitative foundations with a subprogram in school psychology requires a minimum of 125 s.h. of graduate credit. The program is fully accredited by the American Psychological Association.

The program's goal is to prepare doctoral-level school psychologists who will promote psychology as a science and contribute to the advancement of the profession. The faculty endorses a scientist/practitioner model of training and expects students to become competent researchers and proficient practitioners.

Ph.D. students develop a plan of study in consultation with their academic advisors. All students are required to have a thorough grounding in the basic discipline of psychology, which may be achieved through earning a minimum of 3 s.h. of credit in each of the following areas: biological bases of behavior, cognitive/affective bases of behavior, social bases of behavior, individual differences, and history and systems.

Students are required to complete yearly portfolio reviews, which include oral examinations; carry out a preliminary
dissertation research project equivalent in scope to an M.A.
thesis; participate in an internship; and complete a doctoral
dissertation, earning a minimum of 10 s.h. in PSQF:7493 Ph.D.
Thesis in Psychological and Quantitative Foundations.

Research Requirement
To receive credit for additional courses, students must obtain
prior approval from their advisor and the school psychology
program.

All of these:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:6243</td>
<td>Intermediate Statistical Methods</td>
<td>4</td>
</tr>
<tr>
<td>PSQF:6244</td>
<td>Correlation and Regression</td>
<td>4</td>
</tr>
<tr>
<td>PSQF:6246</td>
<td>Design of Experiments</td>
<td>4</td>
</tr>
<tr>
<td>PSQF:7331</td>
<td>Seminar: Educational Psychology I - Current Topics (when subtitle is qualitative educational research methods)</td>
<td>3</td>
</tr>
</tbody>
</table>

Program Core
The following courses are required.

All of these:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSQF:6238</td>
<td>Assessment of Learning Differences (taken with PSQF:7237)</td>
<td>3-4</td>
</tr>
<tr>
<td>PSQF:6251</td>
<td>Individual Intelligence Testing (taken with PSQF:7237)</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:6263</td>
<td>Consultation Theory and Practice (taken with PSQF:7337)</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:7224</td>
<td>Introduction to School Psychology Practice</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:7237</td>
<td>Beginning Practicum in School Psychological Service (minimum of 150 hours required)</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:7313</td>
<td>Psychopathology in Childhood</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:7315</td>
<td>Social and Emotional Assessment of Children and Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:7337</td>
<td>Advanced Practicum in School Psychology (minimum of 750 hours required)</td>
<td>12</td>
</tr>
<tr>
<td>PSQF:7352</td>
<td>Seminar: Behavioral Assessment and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:7367</td>
<td>Social Psychology and Social Systems</td>
<td>3</td>
</tr>
<tr>
<td>PSQF:7380</td>
<td>Practicum in College Teaching (optional)</td>
<td>1-3</td>
</tr>
<tr>
<td>PSQF:7390</td>
<td>Supervision of School Psychology Practicum/Internship</td>
<td>1</td>
</tr>
<tr>
<td>PSQF:7437</td>
<td>Internship in School Psychology (one year full-time or two years half-time; total of 1800 hours required)</td>
<td>3</td>
</tr>
</tbody>
</table>

Program course work in evaluation

Students must enroll in practicums to reach a specified level
of client contact, supervision, and additional experience hours.
Placements must have prior approval of the school psychology
faculty. Students must successfully complete one semester
of PSQF:7237 Beginning Practicum in School Psychological
Service before enrolling in PSQF:7337 Advanced Practicum in
School Psychology. Students must adhere to the most recent
ethical principles and standards of the American Psychological
Association.

Admission
Applicants must meet the admission requirements of the
Graduate College. Preference is given to applicants with
an undergraduate major in psychology or education and
a g.p.a. above 3.00. A combined verbal and quantitative
score of 308 or higher and an analytic writing score of 4 or
higher on the Graduate Record Examination (GRE) General
Test are recommended but not required. The faculty also
encourages applications from individuals with an M.A. or
Ed.S. and experience as psychologists or other human service
providers.

Applications must include three letters of recommendation,
a personal statement of interest and goals, and a writing
sample. Complete application materials, including transcripts
and test scores, must be received by January 1 to be
considered for fall entry. Admission decisions are usually made
by March 15. The program admits from six to eight students
each year.