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<th>Cornell educational objective</th>
<th>Department goals and objectives</th>
<th>Intended student outcomes</th>
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| 1. Be able to acquire, analyze, interpret, and communicate knowledge; possess skills including, but not limited to, writing, reading comprehension, critical thinking, quantitative reasoning, information literacy, oral communication | 1.1 Teach students to weigh evidence, tolerate ambiguity and think critically and use skeptical inquiry and the scientific approach to solving problems related to behavior and mental processes.  
1.1a Require each student in our fundamentals course (Psychology 161) to evaluate and critique the primary research literature via a formal writing assignment.  
1.1b Require a research methods course for all of our majors.  
1.1c Require each student in a research methods course to:  
  - practice descriptive and inferential statistics  
  - write research proposals or conduct research projects  
  - evaluate the quality of their research according to strengths and weaknesses in research methodology  
1.1d Require each student in our Senior Seminar course to write an exhaustive research review paper which summarizes the primary empirical research on a selected topic in an integrated, exhaustive manner.  
1.1e Include research-related writing and/or laboratory assignments in at least 70% of our courses.  
1.1f Recommend at least 15% of our majors in the scientist or specialist concentrations to participate in collaborative student-faculty research on- or off-campus.  
1.1g Encourage at least 5% of our majors to complete an independent senior honors thesis project. | 1.1 Demonstrate the ability to tolerate ambiguity and recognize psychological explanations are often complex and tentative. This ability should be reflected in course activities and assignments. Measurable components of this outcome are delineated in the points below.  
Use critical thinking effectively to:  
  - Evaluate the quality of information, including differentiating empirical evidence from speculation and the probable from the improbable  
  - Identify and evaluate the source, context, and credibility of information  
  - Recognize and defend against common fallacies in thinking  
  - Demonstrate an attitude of critical thinking that includes persistence, open-mindedness, tolerance for ambiguity and intellectual engagement  
Use reasoning to recognize, develop, defend, and criticize arguments and other persuasive appeals through being able to:  
  - Distinguish among assumptions, emotional appeals, speculations, and defensible evidence  
  - Weigh support for conclusions to determine how well reasons support conclusions  
  - Identify weak, contradictory, and inappropriate assertions  
  - Develop sound arguments based on reasoning and evidence  
Approach problems effectively through the ability to  
  - Recognize ill-defined and well-defined problems  
  - Articulate problems clearly  
  - Generate multiple possible goals and solutions  
  - Evaluate the quality of solutions and revise as needed  
  - Select and carry out the best solution  
  - Receive critical feedback on one’s own work with an objective open-minded attitude.  
Demonstrate an awareness of the limitations of psychological knowledge and skills |
1.2 Teach students to be informationally competent and able to use computers and other technology for many purposes.

1.2a In at least 70% of our courses, require students to locate and access peer-reviewed primary or secondary sources via electronic databases.

1.2b Incorporate assignments and laboratory exercises in at least 60% of our courses which require students to develop a working knowledge of software programs and hardware applications directly related to the discipline. This will be accomplished in the following various ways:

- Expose students to hardware and software applications in our courses with a biological focus to evaluate psychophysiological reactions via EEG (electroencephalography), EMG (electromyography), or electrocardiography (ECG).
- Expose students to statistical software packages in our research-related courses including Minitab, SAS, or SPSS.
- Require students to use PowerPoint technology in classroom oral presentations.
- Incorporate Sniffy the Virtual Rat 2.0 software into relevant courses to help demonstrate learning and memory concepts.
- In appropriate research-related courses, require students to use software programs to develop visual depictions of research data via charts, graphs, and figures.
- Use Refworks software in appropriate courses to organize references pages

1.2 Locate and use relevant databases, existing research, and applicable theory to plan, conduct, and interpret results of research studies.

Demonstrate information competence at each stage in the following process:
- Formulate a researchable topic that can be supported by database search strategies
- Use selected sources after evaluating their suitability based on
  - appropriateness, accuracy, quality, and value of the source
  - the relative value of primary versus secondary sources, empirical versus non-empirical sources, and peer-reviewed versus non-peer-reviewed sources
- Be able to read and accurately summarize, evaluate, and integrate content with selected topic areas of psychology

Demonstrate basic computer skills, proper etiquette, and security safeguards
- Use basic word processing, database, email, spreadsheet, and data analysis programs
- Search the World Wide Web for high quality information
- Use proper etiquette and security safeguards when communicating through email
- Honor commercial and intellectual copyrights

Exhibit quantitative Literacy
- Apply basic mathematical concepts and operations to support measurement strategies
- Use relevant probability and statistical analyses to facilitate interpretation of measurements.
- Articulate clear and appropriate rationale for choice of information conveyed in charts, tables, figures, and graphs
- Interpret quantitative visual aids accurately, including showing vigilance about misuse or misrepresentation of quantitative information.
• Use data from the InterUniversity Consortium for Political Science Research to provide students with access to databases in appropriate courses.

1.2c Require each of our majors to take a minimum of 1 course in statistics in order to build proficiency with quantitative information.

1.2d Reintroduce statistical concepts and encourage the application of statistical concepts in at least 25% of our courses to further promote quantitative literacy skills.

1.3 Teach students psychological/scientific writing skills and to communicate scientific findings orally.

1.3a Introduce students to APA writing style in our fundamentals course.

1.3b In at least 60% of our courses, include writing assignments which include scientific writing in APA style.

1.3c Include an oral presentation assignment in at least 50% of our courses.

1.3d Include essay questions in at least 80% of our exams in order to promote writing skills.

1.3e In certain courses within the applied domains, teach students basic and advanced listening skills. Also, provide assignments which require them to thoughtfully reflect upon their own style of communication.

1.3f Require collaborative assignments in 10% of our courses.

1.3 Be able to,
• Quote, paraphrase, and cite correctly from a variety of sources ethically and responsibly
• Define and avoid plagiarism
• Avoid distorting statistical results

Demonstrate professional writing conventions (e.g., grammar, audience awareness, formality) appropriate to purpose and context.

Use APA style effectively in empirically-based reports, literature reviews, and theoretical papers.

Demonstrate effective oral communication skills (e.g., grammar, audience awareness, formality) in various formats appropriate to purpose and context.

Demonstrate effective interpersonal communication skills:
• Listen accurately and actively
• Use psychological concepts and theory to understand interactions with others
• Identify the impact or potential impact of their behaviors on others.
• Articulate ideas thoughtfully and purposefully
• Use appropriately worded questions to improve interpersonal understanding
• Attend to nonverbal behavior and evaluate its meaning in the communications context.
• Adapt communication style to accommodate diverse audiences
• Provide constructive feedback to colleagues in oral and written format
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<th>Goal and Objective 1.3 continued</th>
<th>Exhibit the ability to collaborate effectively</th>
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| 2. Understand the methods and practices of the natural sciences, social sciences, arts, and humanities:  
  • as a result of their experiences with various methods of inquiry, graduates will recognize and apply different disciplinary and interdisciplinary forms of thinking;  
  • as a result of their experiences with a major or concentration, graduates will possess depth of understanding and research skills in at least one method of inquiry | • Work with groups to complete projects within reasonable timeframes  
• Solicit and integrate diverse viewpoints  
• Manage conflicts appropriately and ethically  
• Develop relevant workplace skills: mentoring, interviewing, crisis management |

2.1 Teach students the interrelationship between psychology and other disciplines.  
2.1a In introductory psychology discuss the relationship between psychology and philosophy, biology, and sociology.  
2.1b Require all majors to take 2-3 courses from other departments in order to provide a more comprehensive understanding of other relevant disciplines.  

2.2 Teach students basic research methods in psychology, including research design, data (statistical) analysis, and interpretation.  
2.2a In 80% of courses, discuss psychology as a science.  
  • Describe the scientific method and its application within psychology.  
  • Outline relevant research findings while discussing research design.  
  • Discuss findings in terms of strengths and weaknesses in methodology.  

Compare and contrast the assumptions and methods of psychology with those of other disciplines  
Describe the contributions of psychological perspectives to interdisciplinary collaboration  
Describe the contributions of perspectives of other related disciplines to psychology  

2.2 Describe the basic characteristics of the science of psychology  
Explain different research methods used by psychologists  
  • Describe how various research designs address different types of questions and hypotheses  
  • Articulate strengths and limitations of experimental and nonexperimental research designs  

Evaluate the appropriateness of conclusions derived from psychological research  
  • Interpret basic statistical results  
  • Distinguish between statistical significance and practical significance  
  • Describe effect size and confidence intervals  
  • Evaluate the validity of conclusions presented in research reports
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<th>2.2b In research methods:</th>
<th>Design and conduct basic studies to address psychological questions using appropriate research methods</th>
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<tr>
<td>• Discuss the difference between practical and statistical significance.</td>
<td>• Formulate testable research hypotheses, based on operational definitions of variables</td>
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<td>• Introduce statistical indices of effect size.</td>
<td>• Select and apply appropriate methods to maximize internal and external validity and reduce the</td>
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<td>• Demonstrate the application of confidence intervals.</td>
<td>plausibility of alternative explanations</td>
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<td>• See additional goals specified in 1.1c.</td>
<td>• Collect, analyze, interpret, and report data using appropriate statistical strategies to address</td>
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<td>different types of research questions and hypotheses</td>
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<td>2.2c In at least 30% of our upper level courses (200-level and above), incorporate</td>
<td>• Recognize that theoretical and sociocultural contexts as well as personal biases may shape</td>
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<td>research critique activities or formal assignments which require students to critically</td>
<td>research questions, design, data collection, analysis, and interpretation</td>
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<td>evaluate the conclusions of one (or several) scientific research studies.</td>
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<td>2.2d See 1.1d-1.1g for additional goals also relevant to research proficiency.</td>
<td>Follow the APA Code of Ethics in the treatment of human and nonhuman participants in the design,</td>
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<td>2.2e Discuss relevant ethical issues in psychology in at least 80% of our courses.</td>
<td>collection of data, interpretation, and reporting of psychological research</td>
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<td>Generalize research conclusions appropriately based on the parameters of particular research</td>
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<td>methods</td>
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<td>• Exercise caution in predicting behavior based on limitations of single studies</td>
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<td>• Recognize the limitations of applying normative conclusions to individuals</td>
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<td>• Acknowledge that research results may have unanticipated societal consequence</td>
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<td>• Recognize that individual differences and sociocultural contexts may influence the applicability</td>
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<td>of research finding</td>
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<td>2.3 Teach students the major concepts, theoretical perspectives, empirical findings, and</td>
<td>2.3 Identify and explain the primary objectives of psychology: describing, understanding,</td>
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<tr>
<td>historical trends in psychology.</td>
<td>predicting, and controlling behavior and mental processes</td>
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<td>2.3a Offer three different psychology concentrations, all of which require students to</td>
<td>Demonstrate knowledge and understanding representing appropriate breadth and depth in theory and</td>
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<td>sample broadly from many different areas of psychology, but simultaneously provide an</td>
<td>research representing four general domains:</td>
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<td>opportunity for in-depth study in a selected concentration.</td>
<td>• learning and cognition</td>
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<td>• individual differences, personality, and social processes, including those related to</td>
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<td>sociocultural and international dimensions</td>
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<td>• biological bases of behavior and mental processes, including physiology, sensation,</td>
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<td>perception, comparative, motivation, and emotion</td>
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<td>• developmental changes in behavior and mental processes across the life span</td>
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<td>Major requirements will include the following in order to balance breadth with depth:</td>
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<td>• an introductory course</td>
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<td>• a research methods course</td>
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<td>• a capstone course</td>
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<td>• at least one required course from each domain of psychology, including developmental, cognitive, applied, and biological areas</td>
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<td>• an area of concentration denoted as specialist, scientist, or services</td>
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<td>• 2-3 additional psychology courses depending on area of concentration</td>
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<td>• 2-3 additional courses outside of psychology depending on area of concentration</td>
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<th>Demonstrate knowledge and understanding of overarching themes, persistent questions, or enduring conflicts in psychology including:</th>
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<td>• the interaction of heredity and environment</td>
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<td>• variability and continuity of behavior and mental processes within and across species</td>
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<td>• free will versus determinism</td>
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<td>• subjective versus objective perspective</td>
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<td>• the interaction of mind and body</td>
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<th>Use the concepts, language, and major theories of the discipline to account for psychological phenomena:</th>
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<td>• Identify antecedents and consequences of behavior and mental processes</td>
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<td>• Interpret behavior and mental processes at an appropriate level of complexity</td>
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<td>• Use and integrate theories to explain and predict behavior and mental processes and to produce multifaceted explanations.</td>
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<th>Explain major perspectives of psychology (e.g., behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural).</th>
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<th>3. Possess intercultural knowledge and recognize global perspectives;</th>
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<td>3. Teach students to apply psychology to enhance understanding of the complexity and diversity of others within, as well as outside of, their native cultures.</td>
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<td>3.1 Offer a minimum of 1 course per year which teaches aspects of human diversity, including (but not limited to) Multicultural Psychology and the Psychology of Women.</td>
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<td>3.2 Incorporate a discussion of diversity issues into at least 70% of our courses.</td>
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<th>3. Recognize and respect human diversity and understand that psychological explanations may vary across populations and contexts</th>
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<td>Use, when relevant, data and perspectives outside traditional psychology and Western boundaries</td>
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<td>Examine the sociocultural and international contexts that influence individual decisions.</td>
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<td>Explain how individual differences influence beliefs, values, and interactions with others and vice versa.</td>
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<td>Understand how privilege, power, and oppression may affect prejudice, discrimination, and inequity.</td>
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<td>Recognize prejudicial attitudes and discriminatory behaviors that might exist in themselves and others.</td>
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| 4. Integrate and transfer knowledge and skills from one setting to another | 4. Teach students to apply psychology to enhance understanding of optimal and suboptimal functioning in themselves, others, and broader sociocultural contexts.  
4.1 at least 10% of majors will secure practicum and internship experiences which afford them the opportunity to apply psychological principles outside of the traditional classroom setting | 4. Describe major applied areas of psychology  
Identify appropriate applications of psychology in solving problems, such as:  
• the pursuit and effect of healthy lifestyles and interpersonal relationships  
• origin and treatment of abnormal behavior  
• psychology-based interventions in applied settings and their empirical evaluation  
Articulate how psychological principles can be used to explain social issues and inform public policy  
Apply psychological concepts, theories, and research findings as these relate to everyday life  
Assess and justify their engagement with respect to civic, social, and global responsibilities |
|---|---|---|
| 5. Be cognizant of their responsibility for individual, civic, and social choices | 5. Teach students how to act ethically with regard to the practice of psychology in both practitioner-based as well as research settings.  
5.1 See applicable goal 2.2f.  
5.2 Work toward the implementation of an Institutional Review Board on the Cornell College campus in order to further promote students' understanding of ethical considerations in human participants research.  
5.3 Discuss research-related ethical considerations in student-faculty collaborative research and independent student research.  
5.4 Discuss practitioner ethics in applicable courses, including Counseling and Psychotherapy, Abnormal Psychology, and Human Services Practicum. | 5. Demonstrate knowledge and understanding of relevant ethical issues, including a general understanding of the APA Code of Ethics  
Recognize the necessity for ethical behavior in all aspects of the science and practice of psychology  
Recognize that ethically complex situations can develop in the application of psychological principles |
| 6. Cultivate appropriate professional attitudes and behaviors; and apprise students of career possibilities available in the psychological field. | 6.1 In at least 30% of our courses incorporate a discussion of career-related and/or graduate study-related issues. | Identify their personal and professional values via a written personal statement.  
Describe preferred career paths based on accurate self-assessment of abilities, achievement, motivation, and work habits.  
Identify and develop skills and experiences relevant to achieving selected career goals. |
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| **6.2 In the senior capstone courses (Human Services Practicum and Senior Seminar) require students to write a personal statement reflecting on their skills, perspectives, and abilities acquired during their training and their desired career path** | **Apply psychological principles to promote professional development.**  
- Demonstrate self-regulation in setting and achieving goals.  
- Self-assess performance quality accurately.  
- Incorporate feedback for improved performance.  
- Purposefully evaluate the quality of one’s thinking (metacognition)  

Apply knowledge of psychology (e.g., decision strategies, life span processes, psychological assessment) to formulating career choices. |