

Appendix E. Training Goals and Associated Objectives, Knowledge and Competencies

Goal #1: To train students who are thoroughly grounded in the science of psychology and its application to health and disease.

Associated Objectives	Associated Knowledge and Competencies
<ol style="list-style-type: none"> 1. Students possess knowledge of the history and foundations of scientific psychology and how psychology as a science and profession has progressed and developed over time. 2. Students possess knowledge of biological influences on affect, cognition and behavior. 3. Students possess knowledge of the lifespan development of human affect, cognition and behavior. 4. Students possess knowledge of social influences on affect, cognition and behavior. 5. Students possess knowledge of major conceptual models of disease and health and on major systems and process related to physical and mental health. 6. Students possess knowledge of basic concepts of psychological measurement and their application to the assessment of cognition and personality. 	<p><u>Discipline-Specific Knowledge</u></p> <ul style="list-style-type: none"> • History and Systems of Psychology • Affective Bases of Behavior • Biological Bases of Behavior • Cognitive Aspects of Behavior • Developmental Bases of Behavior. • Social Bases of Behavior • Advanced Integrative Knowledge of Discipline-Specific Content Areas • Psychometrics <p><u>Profession-Wide Competencies</u></p> <ul style="list-style-type: none"> • Assessment <p><u>Program-Specific Competencies</u></p> <ul style="list-style-type: none"> • Integration of medical health, mental health and behavior

Goal #2: To train students who are prepared to engage in high-quality practice of psychology at the entry level in collaborative and interdisciplinary professional health care contexts.

Associated Objectives	Associated Knowledge and Competencies
<p>In a range of medical and mental health contexts...</p> <ol style="list-style-type: none"> 1. Students understand major forms of psychopathology and their connection to basic biological, learning, cognitive, social and affective processes as well as individual differences in these processes. 2. Students demonstrate knowledge and skills in the areas of psychological assessment. 3. Students demonstrate knowledge and skills in selecting and implementing interventions. 4. Students demonstrate knowledge and skills related to use of assessments and interventions that are applicable to the medical/health care environment. 5. Students demonstrate attitudes and behaviors that are conducive to professional and therapeutic interactions with patients. 6. Students demonstrate attitudes and behaviors that are conducive to professional interactions with colleagues and supervisors. 	<p><u>Discipline-Specific Knowledge</u></p> <ul style="list-style-type: none"> • History and Systems of Psychology • Affective Bases of Behavior • Biological Bases of Behavior • Cognitive Aspects of Behavior • Advanced Integrative Knowledge of Discipline-Specific Content Areas <p><u>Profession-Wide Competencies</u></p> <ul style="list-style-type: none"> • Assessment • Intervention • Individual and Cultural Diversity • Supervision • Consultation and Interprofessional/Interdisciplinary Skills <p><u>Program-Specific Competencies</u></p> <ul style="list-style-type: none"> • Integration of medical health, mental health and behavior

Goal #3: To train students who are prepared to conduct meaningful and high-quality research that contributes to understanding of significant psychological or medical disorders, their assessment, amelioration, or management.

Associated Objectives	Associated Knowledge and Competencies
1. Students possess both general and domain-specific knowledge of research design 2. Students possess knowledge and skill necessary to conduct statistical analyses appropriately for most research designs in current use, as well as a foundation for understanding new statistical methods. 3. Students are familiar with major ethical and regulatory issues related to conducting and publishing research.	<u>Discipline-Specific Knowledge</u> <ul style="list-style-type: none"> • Research Methods • Quantitative Methods <u>Profession-Wide Competencies</u> <ul style="list-style-type: none"> • Ethical and Legal Standards <u>Program-Specific Competencies</u> <ul style="list-style-type: none"> • Integration of medical health, mental health and behavior

How Knowledge is Acquired and Assessed, and the Minimum Level of Achievement Required for Graduation

Discipline-Specific Knowledge Domain	Where Acquired	Assessments	Minimum Level of Achievement for Graduation
History and Systems of Psychology	<ul style="list-style-type: none"> • PY 704 Social Psychology • PY 707 Brain and Cognition • PY 708 Developmental Psychology • PY 717 Applied Statistical Methods • PY 740 Adult Personality and Psychopathology • PY 770 Survey of Psychotherapeutic Methods 	In PY 704, 708, 716 and 740 the student must answer an essay or short-answer test question that relates to origins and development of major ideas related to the course topic. In PY 707 and 770 the student must include this material in their in-class presentation or term paper.	Performance at the level of an A or B on relevant questions or presentation/term paper sections.
Affective Aspects of Behavior	<ul style="list-style-type: none"> • PY 704 Social Psychology • PY 708 Developmental Psychology • <i>Either PY 720 or PY 731:</i> <ul style="list-style-type: none"> • PY 720 Human Neuropsychology • PY 731 Health Psychology • PY 740 Adult Personality and Psychopathology 	In each course, student must answer at least one essay or short-answer test question that relates to affective aspects of behavior.	Performance at the level of an A or B on relevant questions
Biological Aspects of Behavior	<ul style="list-style-type: none"> • PY 707: Brain and Cognition 	Students lead and participate in discussions of relevant readings on the cognitive and biological aspects of behavior and their integration. Each student writes and presents a proposal for a research project that investigates the neural basis of cognition.	Students must pass this course with an A or B.
Cognitive Aspects of Behavior			

Developmental Aspects of Behavior	<ul style="list-style-type: none"> • PY 708 Developmental Psychology 	Students write two exams and a term paper, and participate in class discussion of readings and lectures.	Students must pass this course with an A or B.
Social Aspects of Behavior	<ul style="list-style-type: none"> • PY 704 Social Psychology 	Students write two exams and a term paper, and participate in class discussion of readings and lectures.	Students must pass this course with an A or B.
Advanced Integrative Knowledge of Basic Discipline-Specific Content Areas	See Biological Aspects of Behavior and Cognitive Aspects of Behavior , above. PY 707 Brain and Cognition explicitly aims to provide basic coverage in these two domains of discipline-specific knowledge as well as integration across these areas. Most other required courses in the curriculum (e.g., PY 704, PY 708, PY 720, PY 731, PY 740, PY 770) as well as required research activities and clinical practica also integrate multiple domains of scientific content.		
Research Methods	<ul style="list-style-type: none"> • PY 700 Foundations of Research Design • PY 718 Advanced Research Design 	Students write papers and exams as well as an individual predoctoral research grant proposal (e.g., NIH F31).	Students must pass this course with an A or B.
Quantitative Methods	<ul style="list-style-type: none"> • PY 716 Introduction to Statistics and Measurement <ul style="list-style-type: none"> ◦ PY 716L Lab for Introduction to Statistics and Measurement • PY 717 Applied Statistical Methods <ul style="list-style-type: none"> ◦ PY 717L Lab for Applied Statistical Methods • PY 719 Multivariate Statistical Methods <ul style="list-style-type: none"> ◦ PY 719L Lab for Multivariate Statistical Methods 	Students take exams, complete computer-based assignments, and write papers/projects that involve choosing, implementing and interpreting statistical analyses.	Students must pass these courses with an A or B.
Psychometrics	<ul style="list-style-type: none"> • PY 764 Cognitive Assessment: Child and Adult. Although PY 764 is the primary vehicle for this domain, related material is introduced or reinforced in other required courses including PY 716 Intro to Statistics and Measurement, PY 717 Applied Statistical Analysis, PY 700 Foundations of Research Design, PY 718 Advanced Research Design; PY 719 Multivariate Statistics, PY 760 Interviewing and Behavioral Observation, and PY 765 Psychological Assessment of Personality. 	Topics in PY 764 are assessed via short-answer and essay questions on exams. Students are also required to integrate and demonstrate their knowledge of psychometric concepts in interpreting test results.	Students must pass these courses with an A or B.

How Competencies are Acquired and Assessed, and the Minimum Levels of Achievement Required for Graduation

Competency Domain	Where Acquired	Assessment	Minimum Level of Achievement for Graduation *Specific practicum competencies are tabled separately, below.
Profession-Wide Competencies			
Research	<ul style="list-style-type: none"> • Foundational graduate-level research activity, including the master’s thesis • Design, execution and and completion of the doctoral dissertation 	<ul style="list-style-type: none"> • Research productivity • Research mentor ratings of competency to plan a program of research, design and conduct research studies, communicate research results, and master and apply relevant knowledge to the research process • Doctoral dissertation proposal and completed dissertation 	<ul style="list-style-type: none"> • Submission of at least one 1st- or 2nd-author publication prior to applying for internship • Ratings by research mentors as “substantially independent” in all major research domains • Successful completion of a master’s thesis proposal and completed thesis • Successful completion of doctoral dissertation proposal and completed dissertation
Ethical and Legal Standards	<ul style="list-style-type: none"> • PY 701 Professional Issues and Ethics • GRD 717 Principles of Scientific Integrity • Clinical practica 	<ul style="list-style-type: none"> • In PY 701 students participate in class discussions and write a take-home exam • In GRD 717 students take quizzes dealing with topics such as research misconduct, mentoring, collaborative research, plagiarism, authorship, peer review, conflict of interest and protection of human research participants • In clinical practica supervisors evaluate students for their ability to recognize and practice ethical behavior. 	<ul style="list-style-type: none"> • Students must pass PY 701 and GRD 717 with an A or B. • Students must be rated as ready or nearly ready for internship on practicum competencies* relevant to ethical and legal standards.
Individual and Cultural Diversity	<ul style="list-style-type: none"> • PY 704 Social Psychology • PY 708 Developmental Psychology • PY 740 Adult Personality and Psychopathology • PY 765 Psychological Assessment: Personality • Two 1-hour Diversity Seminars for beginning 2nd-year students • Clinical practica 	<ul style="list-style-type: none"> • In PY 704, PY 708, and PY 740 students write exams and term papers that relate to individual and cultural diversity. • In PY 765 students interpret psychodiagnostic and personality test results orally and in writing. • In the Diversity Seminars students discuss papers that they have read in advance • In clinical practica, supervisors evaluate students for their sensitivity to diversity issues in assessment, treatment, and supervision, and as they relate to professional ethics. 	<ul style="list-style-type: none"> • Performance at the level of an A or B on relevant questions or presentation/term paper sections in PY 704, PY 708 and PY 740. • Students must pass PY 765 with an A or B. • Students must complete and actively participate in the Diversity Seminars • Students must be rated as ready or nearly ready for internship on practicum competencies* relevant to individual and cultural diversity.

Professional Values, Attitudes, and Behaviors	<ul style="list-style-type: none"> • PY 701 Professional Issues and Ethics • Clinical practica • Colloquium and other didactic training settings • Interactions with student's Graduate Advisory, Master's Thesis, and Dissertation Committees 	<ul style="list-style-type: none"> • In PY 701, students write a final exam that includes questions related to professional values, attitudes and behavior. • In clinical practica, supervisors evaluate students on their professional values, attitudes and behavior. • Conference and colloquia attendance • Professional and community service 	<ul style="list-style-type: none"> • Students must pass PY 701 with an A or B. • Students must be rated as ready or nearly ready for internship on practicum competencies* relevant to professional values, attitudes and behavior. • Students' conference and colloquium attendance, and their professional and community service, is reviewed annually by their Graduate Advisory Committees.
Communication and Interpersonal Skills	<ul style="list-style-type: none"> • PY 760 Interviewing and Behavioral Observation • PY 764 Cognitive Assessment: Child and Adult • PY 765 Psychological Assessment: Personality • Clinical practica 	<ul style="list-style-type: none"> • In PY 760 students are evaluated for their clinical communication and interpersonal skills in role-plays and a clinical interview with a mock patient • In PY 764 students write clinical reports based on intellectual and achievement test results. • In PY 765 students interpret test results orally and in writing. • In clinical practica, students are evaluated for their professional communication and interpersonal skills as manifest with patients, caregivers, supervisors, and other professionals. 	<ul style="list-style-type: none"> • Students must pass PY 760, PY 764 and PY 765 with an A or B. • Students must be rated as ready or nearly ready for internship on practicum competencies* relevant to their communication and interpersonal skills.
Assessment	<ul style="list-style-type: none"> • PY 760 Interviewing and Behavioral Observation • PY 764 Cognitive Assessment: Child and Adult • PY 765 Psychological Assessment: Personality • Clinical practica 	<ul style="list-style-type: none"> • In PY 760 students are evaluated for their ability to conduct structured and unstructured clinical interviews at an introductory level. • In PY 764 students administer and interpret intellectual and achievement tests. • In PY 765 students interpret personality and psychodiagnostic test results orally and in writing. • In clinical practica, students are evaluated for their competence in selecting, administering and interpreting cognitive, psychodiagnostic and neuropsychological tests, and their ability to integrate test results with history and interview findings. 	<ul style="list-style-type: none"> • Students must pass PY 760, PY 764 and PY 765 with an A or B. • Students must be rated as ready or nearly ready for internship on assessment-related practicum competencies*.
Intervention	<ul style="list-style-type: none"> • PY 770 Survey of Psychotherapeutic Methods • PY 769 Cognitive Behavior Therapy • Clinical practica 	<ul style="list-style-type: none"> • In PY 770 students give an in-class presentation, write a term paper and participate in class discussions related to a wide range of psychotherapeutic methods and approaches. • In PY 769 students write exams, case conceptualizations and treatment plans, and give an oral presentation, on use of CBT for a range of psychological and behavioral disorders for which its efficacy is established. • In clinical practica, students are evaluated for their ability to conceptualize problems, create treatment plans, and implement and document empirically-supported treatments. 	<ul style="list-style-type: none"> • Students must pass PY 770 and PY 769 with an A or B. • Students must be rated as ready or nearly ready for internship on intervention-related practicum competencies*.

Supervision	<ul style="list-style-type: none"> • PY 779 Fundamentals of Clinical Psychology Supervision and Consultation • Clinical practica 	<ul style="list-style-type: none"> • In PY 779 students read and discuss papers, chapters and guidelines relating to professional supervision in diverse contexts. • In clinical practica, students are evaluated for their knowledge and skill in the area of clinical supervision. 	<ul style="list-style-type: none"> • Students must pass PY 779 with an A or B. • Students must be rated as ready or nearly ready for internship on supervision-related practicum competencies*.
Consultation and Interprofessional / Interdisciplinary Skills	<ul style="list-style-type: none"> • PY 779 Fundamentals of Clinical Psychology Supervision and Consultation • Clinical practica 	<ul style="list-style-type: none"> • In PY 779 students read and discuss papers and expert panel reports relating to the role of psychologists in interprofessional and interdisciplinary contexts. • In clinical practica, students are evaluated for their knowledge and skill in interprofessional / interdisciplinary consultation. 	<ul style="list-style-type: none"> • Students must pass PY 779 with an A or B. • Students must be rated as ready or nearly ready for internship on practicum competencies* related to this domain.
Program-Specific Competency			
Integration of medical health, mental health and behavior	<ul style="list-style-type: none"> • <i>Either PY 720 or PY 731:</i> <ul style="list-style-type: none"> • PY 720 Human Neuropsychology • PY 731 Health Psychology • Clinical practica • A predoctoral internship that integrates medical and mental / behavioral health care. 	<ul style="list-style-type: none"> • In PY 720 students write three exams, give two presentations, and contribute to class discussion. • In PY 731 students evaluate health outcome measures, design a behavior change guide for patients with chronic illnesses, write a research proposal and actively participate in class discussions of assigned chapters and articles. • In clinical practica, students are evaluated for their attention to medical/pharmacological issues in assessment and • Feedback from internship sites is used to assess this competency. 	<ul style="list-style-type: none"> • Students must pass PY 720 or PY 731 with an A or B. • Students must be rated as ready or nearly ready for internship on practicum competencies* related to this domain. • Students must successfully pass their integrative clinical internship.
*Clinical Practicum Competencies by Domain Numbers refer to items on our Clinical Practicum Evaluation Form			
Ethical and Legal Standards	<p>2a.2 Maintains appropriate boundaries: Supervisor observes appropriate boundaries with all of the student's patient/clients</p> <p>2a.3 Makes ethical decisions regarding clinical relationships: Supervisor observes no marginal or unsatisfactory ethical decision-making in clinical relationships or services</p> <p>3b.1 Expresses knowledge of and concern for ethical issues in professional practice, and acts accordingly</p> <p>3b.2 Expresses knowledge of and concern for ethical issues in aspects of professional practice that are related to cultural or individual diversity, and acts accordingly</p> <p>3c.1 As a supervisor in training, articulates and acts on the basis of his or her ethical responsibilities to patients/clients, supervisees, and his or her supervisor</p> <p>3c.3 Keeps adequate records of supervision as a basis for effective communication with supervisees regarding their progress, training needs and concerns</p>		
Individual and Cultural Diversity	<p>2c.5 Is sensitive to diversity issues, including patient and community values and preferences for care, and is able to address them effectively during assessment or therapy</p> <p>3b.2 Expresses knowledge of and concern for ethical issues in aspects of professional practice that are related to cultural or individual diversity, and acts accordingly</p> <p>3c.2 Demonstrates respect for diversity in behavior towards supervisees</p>		

Professional Values, Attitudes, and Behaviors	<p>1c.1 Understands the value and role of science in the practice of clinical psychology</p> <p>1c.2 Understands the value and role of clinical practice in science</p> <p>3a.1 Engages appropriately in supervision. Is open to constructive feedback on all professional activities and to questions regarding his or her own professional behavior.</p> <p>3a.2 Engages in appropriate (respectful and collaborative) verbal interaction with other professionals/staff</p> <p>3a.3 Communicates appropriately in writing with other professionals/staff: Notes on assessment and treatment results are timely, relatively brief, well-organized, and based on sound observation</p> <p>3a.4 Attends all scheduled activities and provides timely notice if he/she cannot attend for a legitimate reason</p> <p>3a.5 Changes his or her behavior as a function of supervisor's feedback</p> <p>3a.6 Demonstrates motivation and interest in the profession; e.g., by reading relevant journal articles, attending conferences and workshops, and engaging in discussion of important professional matters</p> <p>3a.10 Unimpeded by behavioral problems that hinder delivery of professional services or ability to benefit from supervision</p> <p>3b.3 Takes advantage of local, national and/or international educational and training opportunities to increase knowledge and competence</p>
Communication and Interpersonal Skills	<p>2a.1 Establishes strong positive therapeutic alliances: Supervisor observes satisfactory or better therapeutic alliance with all of the student's patient/clients</p> <p>3a.2 Engages in appropriate (respectful and collaborative) verbal interaction with other professionals/staff</p> <p>3a.3 Communicates appropriately in writing with other professionals/staff: Notes on assessment and treatment results are timely, relatively brief, well-organized, and based on sound observation</p>
Assessment	<p>1a.1 Knowledge of the DSM and its proper usage</p> <p>1a.2 Knowledge of appropriate administration and interpretation of assessment instruments</p> <p>1a.3 Knowledge of theories and evidence regarding assessment interview formats</p> <p>1a.4 Understanding of common medical and pharmacologic issues relevant to assessment</p> <p>2b.1 Chooses assessment instruments that are appropriate to case needs. Supervisor observes student making satisfactory choices for instruments for many cases.</p> <p>2b.2 Interprets testing and express results clearly. Supervisor observes student scoring tests correctly, interpreting test results appropriately, and writing satisfactory integrated reports.</p> <p>2b.3 Able to use psychological interview for assessment</p> <p>2b.4 Draws valid inferences from interviews</p> <p>2b.5 Conceptualizes cases credibly (adequately) in supervision meetings</p> <p>2b.6 Conceptualizes cases credibly (adequately) in written reports</p> <p>2b.7 Makes appropriate DSM diagnoses. Supervisor observes agreement between himself/herself and student on at least 75% of major diagnostic categories.</p>
Intervention	<p>1b.1 Knowledge of theoretical orientations and their use in guiding treatment</p> <p>1b.2 Understands the appropriate use of therapeutic approaches</p> <p>1b.3 Recognizes the impact of cultural and individual differences upon the therapeutic process</p> <p>1b.4 Understands both the value of ESTs and the value of individualizing therapy</p> <p>2c.1 Uses case conceptualization to draw appropriate implications for an ideal treatment plan</p> <p>2c.2 Uses case conceptualization to draw appropriate implications for a treatment plan that appropriately considers idiosyncrasies of the patient/client's individual situation</p> <p>2c.3 Implements individual treatments effectively based on a developed treatment plan</p> <p>2c.4 Implements group therapy effectively, working supportively of a co-therapist if present</p>

Supervision	<p>1d.1 Articulates an approach to supervision that is grounded in research</p> <p>1d.2 Provides supervisees with feedback that is based in substantive knowledge of the area being supervised</p> <p>2d.1 Establishes strong positive supervisory relationships/alliances with supervisees and other trainees with whom he or she is charged with providing feedback</p> <p>2d.2 Promotes supervisee’s self-assessment and development by maintaining an appropriate balance between support and challenge/critique</p> <p>2d.3 Encourages and uses evaluative feedback from supervisees</p> <p>3c.1 As a supervisor in training, articulates and acts on the basis of his or her ethical responsibilities to patients/clients, supervisees, and his or her supervisor</p> <p>3c.2 Demonstrates respect for diversity in behavior towards supervisees</p> <p>3c.3 Keeps adequate records of supervision as a basis for effective communication with supervisees regarding their progress, training needs and concerns</p>
Consultation and Interprofessional / Interdisciplinary Skills	<p>3a.2 Engages in appropriate (respectful and collaborative) verbal interaction with other professionals/staff</p> <p>3a.3 Communicates appropriately in writing with other professionals/staff: Notes on assessment and treatment results are timely, relatively brief, well-organized, and based on sound observation</p> <p>3a.7 Understands and respects the unique cultures, values, perspectives, roles/responsibilities, and expertise of other health professions</p> <p>3a.8 Integrates the knowledge and experience of other professions to inform care decisions</p> <p>3a.9 As a team member listens actively, encourages ideas and opinions of others, and expresses knowledge and opinions with confidence, clarity, and respect</p>
Integration of medical health, mental health and behavior	<p>1a.4 Understands common medical and pharmacologic issues relevant to assessment</p> <p>3a.8 Integrates the knowledge and experience of other professions to inform care decisions</p>