



*Psychopharmacology
Examination for Psychologists
(PEP)*

An Examination for Psychologists

CANDIDATE GUIDE
APPLICATION MATERIALS





CANDIDATE GUIDE AND APPLICATION MATERIALS

The APA Practice Organization's College of Professional Psychology offers the Psychopharmacology Examination for Psychologists (PEP) to licensed psychologists who meet eligibility requirements. Membership in the American Psychological Association is not required.

The PEP was developed for use by state and provincial psychology licensing authorities in setting requirement to implement laws permitting the prescribing of psychotropic medications by qualified psychologists. It is only by the actions of state and provincial legislatures that authority to prescribe psychotropic medications may be conferred.

PEP scores are maintained in a secure and confidential databank and are reported to state and provincial psychology licensing authorities or other entities upon examinee written authorization.

Fall 2006



CONTENTS

Candidate Guide

Introduction	3
The Examination	
General Information	3
How the PEP Was Developed	3
Establishing the Recommended Passing Score	3
PEP Administration	4
Your Score Report	4
Follow-Up Survey	4
Candidates With Disabilities	4
Suggestions for Taking the PEP	5
Sample Questions	5
Knowledge-Based Content Outline	5
Content Area Definitions and Knowledge Statements	6

Application Materials

Introduction	13
Requirements for Admission to the PEP	13
The PEP	13
Before You Proceed	13
Fees	13
Special Accommodations for Testing	13
Application Forms	
Application	15
Work Setting Codes	16
Waiver and Acknowledgment	17
Application Fee Payment Form	19
Verification of the Provision of Health Services	21
Psychopharmacology Didactic Education Verification Form	23
Application Checklist and Mailing Instructions	INSIDE BACK COVER



CANDIDATE GUIDE for the Psychopharmacology Examination for Psychologists (PEP)

INTRODUCTION

This Candidate Guide contains a description of the PEP, including what it measures, how it is developed, how it is administered, and how it is scored. General exam-taking strategies are provided along with sample questions. A complete description of the knowledge base covered by the PEP is included.

THE EXAMINATION

1. General Information

The PEP measures didactic knowledge associated with the safe and effective practice of psychology involving prescribing of psychotropic medications or collaborating with those who prescribe such medications. The PEP contains 150 multiple-choice items that require recall of information, analysis, and judgment. Typical practice situations may be presented requiring judgment such as next steps, best choices, most appropriate first step, most important considerations, etc.

You will have 3 hours in which to complete the PEP. This should be adequate time to comfortably read, consider, and mark each item.

2. How the PEP Was Developed

The PEP was developed by the APA Practice Organization, College of Professional Psychology's Expert Working Group under the guidance of Professional Examination Service (PES), New York, NY. PES is nationally recognized as one of the nation's oldest and most highly regarded testing firms, with over 50 years of experience developing examinations for both licensure and certification functions.

The PEP is updated frequently by the Expert Working Group and PES to reflect the changing knowledge required for safe and effective practice.

Members of the Expert Working Group are carefully selected to reflect the diversity of the profession in terms of practice setting, geographical location, gender, and ethnicity. Further, the Expert Working Group includes many of the military prescribing psychologists who graduated from the U. S. Department of Defense's Psychopharmacology Demonstration Project, along with physicians, academic researchers in pharmacology and psychopharmacology, pharmacists, and nurses. Individuals with expertise in the treatment of specific populations such as children, the elderly, minorities, women, and substance abusers are also represented.

The PEP's content "blueprint" accurately reflects the practice of the profession involving prescribing of psychotropic medications or collaborating with those who prescribe such medications. The blueprint supports the PEP's content validity and, thus, its defensibility for use in a regulatory setting. It was produced through use of a carefully constructed, multi-step practice analysis that involved input from a large sample of psychologists, nurses, pharmacologists, pharmacists, and psychiatrists. Using the validated, practice-based content outline, psychologist itemwriters are encouraged to draw upon actual treatment experience to ensure item relevance. All items are carefully reviewed to ensure validity, fairness, relevance and clarity.

3. Establishing the Recommended Passing Score

The Recommended Passing Score is determined using a criterion-referenced methodology referred to as a modified Angoff approach to setting a standard (i.e., recommended passing score). This methodology permits candidates to compete against the standard, rather than each other.

Using the modified Angoff approach, items are evaluated based on difficulty for the "just good enough" practitioner, as well as importance for safe and effective practice. Difficulty/importance ratings are then averaged across all items to set the passing score. The Recommended Passing Score, thus, represents the minimum level of knowledge that must be demonstrated by the psychologist. An examinee's score on the PEP is simply the number of items answered correctly



represented as a percentage. All items receive identical weight. “Passing” the PEP requires a score at or above the “Recommended Passing Score.” The recommended passing score is a score that the APA Practice Organization, College of Professional Psychology recommends for use by state and provincial psychology licensing authorities in awarding prescriptive authority. In order to ensure exam security, there is no provision for failing or passing candidates to review their examination. However, comments about the PEP may be addressed directly to the APA Practice Organization, College of Professional Psychology.

4. PEP Administration

The PEP is administered on computer at Prometric Technology Centers™. Computer knowledge is not required in order to take the PEP by computer. Before the PEP begins, a simple tutorial will guide you through the process of selecting answers. The time you spend on the tutorial is not assessed against the time allotted for the examination.

A HELP feature will be available during the PEP. Additionally, you may mark questions and return to them later to review and/or change your answers. If you have any questions about how to work with the computer, the Prometric Test Center Administrator will be available.

5. Your Score Report

After you complete the PEP, you will receive information about your performance. Your score will be forwarded to the APA Practice Organization, College of Professional Psychology for comparison with the Recommended Passing Score. You will receive written confirmation of your exam results with information about re-take, if required, within approximately four weeks from the date of your exam.

6. Follow-Up Survey

After you receive information about your performance, you will be given the option of completing a short, follow-up survey. Your willingness to complete the survey will not affect your score on the PEP. Answers to this survey will

assist the APA Practice Organization, College of Professional Psychology in keeping the exam content current. We hope you will take the time to assist.

7. Candidates With Disabilities

All Prometric Technology Centers are accessible to candidates with disabilities and comply with the American with Disabilities Act (42 USG Section 12101 et. seq.) Most special needs can be accommodated by Prometric Technology Centers; however, authorization from the APA Practice Organization, College of Professional Psychology is necessary. The following guideline applies to candidates seeking special accommodations:

Candidates requesting special testing accommodations due to impaired sensory, manual, or speaking skills, or other disability must submit, by mail or fax, a written request that includes name, address, social security number, and a description of the requested accommodation. The written request must be accompanied by supporting documentation from an appropriately qualified, licensed professional reflecting a diagnosis of the condition and an explanation of the need for the requested accommodation. Alternatively, documentation may be submitted from appropriate educational or regulatory officials indicating that special accommodation has been provided historically for the candidate’s condition that is prompting his or her present request.

The written request for special accommodation must be submitted to the APA Practice Organization, College of Psychology at least 45 days in advance of the desired testing date. The APA Practice Organization, College of Professional Psychology will evaluate each request on its own merit in accordance with the Americans with Disabilities Act.



SUGGESTIONS FOR TAKING THE PEP

- Read the instructions carefully and complete the tutorial. Make sure that you understand how to mark your responses before beginning.
- Read each question and all the answers carefully and completely before selecting the most appropriate answer.
- Remember that your task is to identify the best answer among those given. In some cases, more than one answer may be workable, but you must decide which is the best answer.
- When you choose an answer, resist changing it unless you are absolutely certain that it is not the best answer.
- Answer all questions on the PEP, even those about which you are uncertain.
- The 3-hour time limit should be more than sufficient to answer all questions. However, check your time periodically and budget your time carefully.
- If you have time remaining when you reach the end of the PEP, return to any items that you have skipped, or about which you were unsure.
- If you have time, go through all of the items to make sure that your responses are recorded correctly.

SAMPLE QUESTIONS

Following are several sample test items that are illustrative of the types of items that comprise the PEP. These sample items are not meant to illustrate the diversity of subject areas. The correct answer for each is indicated by an asterisk (*).

1. All preganglionic fibers of the autonomic nervous system use the neurotransmitter:
 - a. acetylcholine *
 - b. dopamine
 - c. GABA
 - d. norepinephrine

2. Monoamine oxidase inhibitors produce their effects by:
 - a. inhibiting the degradation of norepinephrine*
 - b. inhibiting the reuptake of norepinephrine
 - c. inhibiting the reuptake of acetylcholine
 - d. decreasing the amount of norepinephrine available at the synapse
3. A 45-year-old female on an inpatient unit who has been recently treated with haloperidol develops hyperthermia, rapid heart rate, pallor, and muscular rigidity. These symptoms MOST likely indicate the onset of:
 - a. spinal meningitis
 - b. neuroleptic malignant syndrome*
 - c. agranulocytosis
 - d. a condition unrelated to the medication
4. The double-blind, placebo-controlled design in psychopharmacology research has been criticized because:
 - a. reports of side effects may clue clinicians to the experimental status of the patient*
 - b. placebos are too variable in the effects they produce
 - c. clinicians may subtly convey to their patients their expectations for improvement depending on whether the patient is receiving the experimental drug or the placebo
 - d. patients become aware of their experimental status because placebos have no side effects

Knowledge-Based Content Outline

The knowledge sampled by the PEP is organized into 10 Knowledge-Based Content Areas with associated definitions and knowledge statements. The 10 content areas are represented on the PEP according to the percentages indicated after the title for the area. For example, 15% of the items (22-23 items out of the 150) are drawn from Content Area 1, 8% from Content Area 2 (12 items out of the 150), etc. Percentages reflect the relative importance of each category for safe and effective practice as well as the amount of knowledge each category contains.

Please bear in mind that the PEP samples from the content areas. Thus, not every knowledge statement, nor each and every possible aspect of any specific content area, may be represented on the PEP.



CONTENT AREA DEFINITIONS AND KNOWLEDGE STATEMENTS

Validated for Inclusion in the Psychopharmacology Examination for Psychologists (PEP)

Content Area 1: Integrating clinical psychopharmacology with the practice of psychology (15%)

Refers to the implementation of clinical practices of biopsychosocial assessment, multi-axial diagnosis, and treatment, including pharmacotherapy, in the context of a complex of factors influencing functioning. These factors include biological (e.g., genetic, sex, age, disease), psychological (e.g., cognitive, emotional, dynamic, motivational, behavioral), psychosocial (e.g., gender, cultural/ethnic, interpersonal), and ecological/environmental factors.

1. Knowledge of biopsychosocial variables as determinants of medication effects (e.g., family history, differential familial medication response, patient belief systems, economics, social support, current environmental circumstances)
2. Knowledge of relative effects of psychopharmacological and psychological interventions as sole, additive, or interactive treatments for given disorders
3. Knowledge of limitations and value of single-treatment modalities, combined interventions (i.e., medication employed alone or in conjunction with a psychological therapy), and patient perceptions (e.g., attributions of therapeutic and adverse effects, psychological meaning of medication, motivations, treatment expectations)
4. Knowledge of timing and sequencing of interventions to achieve maximum treatment effectiveness, including importance of patient instruction
5. Knowledge of practitioner-patient relationship, including its impact on medication adherence, efficacy, adverse effects, and response to side effects, and implications for the relationship when physical and pharmacological interventions are utilized

6. Knowledge of the development and implementation of a coherent and organized treatment plan of psychological and pharmacological intervention
7. Knowledge of case and medication management techniques to enhance adherence to treatment plan (e.g., biological and psychological principles relevant to adherence, communication skills, patient education techniques, cultural competence)
8. Knowledge of pharmacoeconomics/cost issues in treatment planning

Content Area 2: Neuroscience (8%)

Refers to the anatomy, physiology, and biochemistry of the nervous system and its interfaces with other major body systems.

1. Knowledge of the structure and function of nervous system cells
2. Knowledge of the structure and function of the central and peripheral nervous systems
3. Knowledge of the major neuronal pathways and their functions, including second messenger systems
4. Knowledge of the vascular supply of the brain, and the blood-brain and placental barriers
5. Knowledge of cellular and molecular nervous system biology and regulatory processes
6. Knowledge of major neurotransmitter and neuromodulator synthesis, storage, release, distribution throughout the brain and the rest of the body, action, reuptake, and degradation
7. Knowledge of neuropeptides (e.g., enkephalin, endorphin, substance P)
8. Knowledge of the endocrine system and the interface of various hormones and other neurotransmitters

**Content Area 3: Nervous system pathology (9%)**

Refers to disorders of the nervous system resulting in abnormal function or behavioral/mood disruption. Includes biochemical, structural (congenital or acquired), or neurophysiological abnormalities and their impact on other body systems.

1. Knowledge of etiological factors and diagnoses of dementia, delirium, and other cognitive disorders
2. Knowledge of etiological factors and diagnosis of chronic pain, including headache (e.g., differentiation of pain syndromes with primarily nervous, musculoskeletal, and tension-related etiology)
3. Knowledge of etiological factors and diagnosis of sleep disorders as related to the nervous system and psychopathology
4. Knowledge of etiological factors and diagnosis of movement disorders (e.g., including Parkinson's, Huntington's, and Tourette's syndromes)
5. Knowledge of etiological factors and diagnosis of mental retardation
6. Knowledge of etiological factors and diagnosis of neurodevelopmental disorders (e.g., fetal alcohol syndrome, pervasive developmental disorders, Fragile-X syndrome)
7. Knowledge of etiological factors and diagnosis of central nervous system vascular disorders (e.g., cerebral vascular accidents [CVAs], transient ischemic attacks [TIAs])
8. Knowledge of etiological factors and diagnosis of seizure disorders
9. Knowledge of traumatic brain injury
10. Knowledge of other nervous system pathology (e.g., multiple sclerosis, infectious diseases, neoplasms)
11. Knowledge of neurobehavioral/psychological disorders that have an hypothesized neuropathological basis (e.g., schizophrenia, affective disorders, anxiety, ADHD)

12. Knowledge of basic neurodiagnostic markers of neurobehavioral disorders (e.g., as found on EEG and diagnostic imaging, and in neuropsychological assessment)

13. Knowledge of the mechanism of extrapyramidal dysfunction (e.g., dystonic reactions and tardive dyskinesia)

Content Area 4: Physiology and pathophysiology (9%)

Refers to normal physiology and pathophysiology across the life span, and to their impact on psychological functioning and psychopharmacology.

1. Knowledge of indications for referral to other health care providers for treatment or additional assessment
2. Knowledge of basic cardiovascular system physiology and pathophysiology across the life span (e.g., rhythm and rate disorders such as prolonged QT interval)
3. Knowledge of interrelationships between cardiovascular functioning and: a) psychopharmacology (e.g., EKG changes secondary to TCAs, blood pressure changes secondary to psychotropics, beta blockers, and depression); and (b) psychopathology (e.g., mitral valve prolapse related to panic disorder, tachycardia related to generalized anxiety disorder)
4. Knowledge of basic pulmonary system physiology and pathophysiology across the life span
5. Knowledge of interrelationships between pulmonary functioning and: (a) psychopharmacology (e.g., theophylline and anxiety, beta blockers and asthma); and (b) psychopathology (e.g., hypoxia versus dementia)
6. Knowledge of basic renal/genitourinary system physiology and pathophysiology across the life span (e.g., effect of electrolyte imbalance on mental status)
7. Knowledge of interrelationships between renal/genitourinary functioning and: (a) psychopharmacology (e.g., effect of psychotropic substances on urinary/sexual functioning); and



- (b) psychopathology (e.g., urinary tract infection and mental status changes in the elderly)
8. Knowledge of basic hepatic system physiology and pathophysiology across the life span (e.g., first-pass metabolism, disorders affecting first-pass metabolism)
 9. Knowledge of interrelationships between hepatic functioning and: (a) psychopharmacology (e.g., the interaction between psychotropics and liver enzymes, such as the cytochrome P450 system); and (b) psychopathology (e.g., metabolic encephalopathy and delirium; carcinoid tumor and anxiety)
 10. Knowledge of basic endocrine system physiology and pathophysiology across the life span (e.g., relationship between thyroid function tests and hypothyroidism and hyperthyroidism)
 11. Knowledge of interrelationships between endocrine functioning and: (a) psychopharmacology (e.g., elevated prolactin and antipsychotic medications); and (b) psychopathology (e.g., hormonal disequilibrium and perimenstrual dysphoria, depression and Cushing's disease)
 12. Knowledge of basic hematological system physiology and pathophysiology across the life span
 13. Knowledge of interrelationships between hematological functioning and: (a) psychopharmacology (e.g., agranulocytosis and clozapine, thrombocytopenia and carbamazepine); and (b) psychopathology (e.g., anemia and depression)
 14. Knowledge of basic muscular/skeletal/dermatologic system physiology and pathophysiology across the life span (e.g., hypercalcemia and depression)
 15. Knowledge of interrelationships between muscular/skeletal/dermatologic functioning and: (a) psychopharmacology (e.g., alopecia and valproic acid); and (b) psychopathology (e.g., OCD and trichotillomania)
 16. Knowledge of basic immunologic/rheumatology system physiology and pathophysiology across the life span (e.g., systemic lupus erythematosus [SLE])
 17. Knowledge of interrelationships between immunologic/ rheumatologic functioning and: (a) psychopharmacology; and (b) psychopathology (e.g., SLE and depression, fibromyalgia and depression, AIDS-related dementia)
 18. Knowledge of interface of psychological, physiological, and behavioral factors and their relationship in complex behaviors and processes involving multiple body systems (e.g., psychoneuroimmunology, sexual functioning)
 19. Knowledge of relationship of complex behaviors involving multiple body systems with: (a) psychopharmacology (e.g., sleep disruption secondary to antidepressant medication); and (b) psychopathology (e.g., sexual dysfunction and depression)
- Content Area 5: Biopsychosocial and pharmacologic assessment and monitoring (10%)**
Refers to a range of biopsychosocial (psychological, neurological, behavioral, physical, biomedical) and pharmacologic assessment techniques and procedures for baseline and ongoing evaluation of the individual's physical and psychological health status as well as the assessment of therapeutic efficacy, adverse effects, contraindications for usage, drug interactions, and appropriateness for medication continuation, modification, or discontinuation.
1. Knowledge of psychological assessment and history taking procedures (e.g., comprehensive individual and family medical and mental health history, dietary habits, mental status, and behavioral assessments)
 2. Knowledge of basic physical and neurological examination procedures
 3. Knowledge of normal laboratory values in screening, assessment, and monitoring techniques, and the implication of disease states, sample timing, and medications on those values
 4. Knowledge of laboratory tests and assessment procedures indicated for general assessment



(e.g., basic screening panel), appropriate for use with special populations (e.g., females, individuals experiencing first psychotic break), or before prescribing particular medications (e.g., lithium)

5. Knowledge of medication-specific therapeutic drug monitoring, and indications for monitoring of clinical laboratory values (e.g., TCA levels, renal functioning in lithium use)
6. Knowledge of behavioral assessment methods (e.g., rating scales, direct observation of behaviors, parent/teacher/self report) in baseline and ongoing monitoring of therapeutic effectiveness, quality of life, and adverse effects of psychopharmacological agents (e.g., tardive dyskinesia with antipsychotics, sexual dysfunction with antidepressants)
7. Knowledge of techniques for differential diagnosis and indications for referral to other health care providers based on identification by abnormal biopsychosocial or pharmacological evaluation measures
8. Knowledge of intellectual and neuropsychological assessment as it pertains to aiding diagnosis (e.g., depression versus dementia), indications for medication regimens, and ability to provide informed consent

Content Area 6: Differential diagnosis (13%)

Refers to the use of comprehensive diagnostic information about a patient to establish an accurate diagnosis from among possible medical and psychological diagnoses in order to select appropriate treatment modalities and determine appropriateness of referral to other health care providers.

1. Knowledge of medical disorders that present as psychological disorders (e.g., ADHD versus PKU versus autism, anxiety versus Graves' disorder)
2. Knowledge of psychological disorders that present as medical disorders (e.g., factitious disorders, somatization disorders)
3. Knowledge of psychological signs and symptoms (e.g., mental status changes, memory

dysfunction, depression, psychosis) secondary to substances of abuse, prescribed and over-the-counter [OTC] medications, supplements, and alternative treatments (e.g., St. John's wort, steroids)

4. Knowledge of varied presentations of psychological disorders in different populations (e.g., depression versus dementia in the elderly, ADHD versus anxiety in children, mania versus paranoid schizophrenia in African Americans)
5. Knowledge of the use of psychological testing, physical and laboratory assessment, and medication response to clarify diagnostic dilemmas (e.g., mania versus cocaine abuse versus hyperthyroidism versus theophylline overdose)
6. Knowledge of psychopharmacological implications for mental health disorders with overlapping symptomatology (e.g., major depressive disorder with psychotic features, anxious depression)
7. Knowledge of dual diagnosis and co-morbid conditions (e.g., double depression, alcoholism and schizophrenia, depression with Parkinson's disease)
8. Knowledge of iatrogenic effects of medication versus primary symptoms of disease progression (e.g., akathisia versus anxiety; depression versus negative symptoms of schizophrenia; anticholinergic reactions versus dementia; medication-induced tremor, dystonic reaction, or tardive dyskinesia versus primary movement disorders)

Content Area 7: Pharmacology (12%)

Refers to the interactions of drugs with biophysiological systems; encompasses pharmacokinetics, pharmacodynamics, pharmacogenetics, and the epidemiology of various medications such as psychotropics, adjunctive agents, and other medications used in the practice of medicine, as well as substances of abuse, OTC products, and food and dietary supplements. The influence of cultural/ethnic factors, environmental factors, and responses of special populations are considered.

1. Knowledge of drug classifications for psychotropic and adjunctive medications (e.g., stimulants, sedatives, antidepressants,



- anticholinergics), other drugs used in the practice of medicine, OTC medications, and substances of abuse
 2. Knowledge of biological factors affecting pharmacokinetics and pharmacodynamics
 3. Knowledge of absorption (e.g., delayed-release preparations, rates of absorption after oral dosing or parenteral injection, area under the curve, timing with food intake)
 4. Knowledge of distribution (e.g., plasma protein binding, influence of lipophilicity)
 5. Knowledge of metabolism (e.g., drug metabolism, understanding of the substrate and inhibitors and inducers of the “family” of P450 enzymes, other enzymes outside the liver)
 6. Knowledge of excretion (e.g., renal filtration rate, clearance of drugs)
 7. Knowledge of importance of biological half-life in determining steady-state drug concentrations, dosing schedules, accumulation
 8. Knowledge of drug properties and characteristics (e.g., therapeutic index, therapeutic blood levels/prescription doses, potency, bioavailability, efficacy, cognitive and behavioral manifestations of toxicity, dose-response relationships)
 9. Knowledge of types of drugs and other agents interacting with receptors (e.g., direct and indirect agonists, antagonists, and inverse agonists)
 10. Knowledge of drug-induced cellular adaptation (e.g., cellular signaling, ion channels, second messengers, neurotransmitter release, sensitivity, supersensitivity)
 11. Knowledge of drug effects on genetic expression (e.g., down-regulation)
 12. Knowledge of specific neurotransmitters, receptors, modulators, and neuropeptides
 13. Knowledge of mechanisms of action of a range of therapeutic agents with particular focus on psychotropic and adjunctive medications
 14. Knowledge of theoretical relationships thought to exist between neurotransmitter systems and psychopathological conditions based on known mechanisms of action and clinical observations (e.g., roles of serotonin in depression, dopamine in psychosis and substance abuse)
 15. Knowledge of drug-drug and drug-food interactions for a range of medications as well as substances of abuse, and supplements and other OTC products
 16. Knowledge of drug-induced disease, dysfunction, and adverse reactions (e.g., hepatotoxicity, agranulocytosis, dystonias)
 17. Knowledge of genetic polymorphisms (e.g., ethnic and gender differences, differences in cytochrome P450 isoenzymes in drug metabolism)
 18. Knowledge of familial patterns of drug response and toxicity
 19. Knowledge of pharmacoepidemiology (e.g., epidemiology of psychotropic drug use)
 20. Knowledge of tolerance, dependence, and withdrawal
- Content Area 8: Clinical psychopharmacology (13%)**
- Refers to the application of pharmacology to the management of psychological/behavioral disorders. This includes indications, contraindications, dosing, adverse effects and toxicities of psychotropic and adjunctive medications, interactions with other medications (including other drugs used in medicine, for recreational purposes, and available for OTC purchase) as well as the management of adverse reactions, overdoses, and toxicities.
1. Knowledge of indications, contraindications, and off-label uses of various psychotropic and adjunctive medications
 2. Knowledge of rationale for psychotropic medication selection, taking into account diagnoses, target symptoms, patient and family history, premorbid personality, demographics, comorbid medical conditions,



- existing medication regimen and potential for interactions, and differences among medications within classes of drugs
3. Knowledge of dosing, time course of therapeutic action and adverse effects; and patient factors that influence dose (e.g., weight, gender, ethnicity, age, concurrent disease)
 4. Knowledge of therapeutic monitoring, augmentation strategies, and dose adjustment (e.g., titration, cross-taper, discontinuation)
 5. Knowledge of routes of administration (e.g., oral, intramuscular, intravenous, inhalation) and differential response
 6. Knowledge of specific drug toxicities, management of adverse reactions, including overdose, and indications for referral for appropriate medical care (e.g., acute allergic reaction, extrapyramidal symptoms, hypertensive crisis)
 7. Knowledge of interactions of psychotropic and adjunctive medications with other medications (including other drugs used in medicine, for recreational purposes, and available for OTC purchase)
 8. Knowledge of relapse prevention, maintenance, and prophylaxis (e.g., strategies for sustaining remission of substance abuse, ensuring treatment compliance, preventing recurrence of depression)
 9. Knowledge of drug effects in special populations (e.g., developmentally disabled, elderly, pregnant or lactating women)
 10. Knowledge of pharmacological implications for comorbidity of age-related and disability-related disorders (e.g., overanxious disorder comorbid with ADHD)
 11. Knowledge of potential psychological and physiological manifestations of medications (including OTC drugs, supplements, and herbal substances) used for nonpsychological purposes (e.g., beta blockers, steroids)
 12. Knowledge of psychological and physiological manifestations of various recreational substances and treatment of intoxication or addiction, including strategies for assisted withdrawal, maintenance, and relapse prevention
 13. Knowledge of tolerance, cross-tolerance, dependence and withdrawal, sensitization/cross-sensitization with respect to specific medications, and the management strategies used to treat them
 14. Knowledge of drug-seeking behavior, and potential for abuse of prescription medications
 15. Knowledge of culturally appropriate educational techniques to inform patients about drug utilization, risks, benefits, potential complications, and alternatives to pharmacotherapy (e.g., procedures to enhance compliance, techniques to teach appropriate attribution and self-monitoring)
- Content Area 9: Research (4%)**
Refers to the methodology, standards, and conduct of research on psychoactive substances. The knowledge base facilitates research design and implementation, accurate data interpretation and communication, effective utilization of findings, the accumulation of scientific knowledge, and the improvement of the practice of clinical psychopharmacology.
1. Knowledge of psychopharmacological retrieval systems and databases
 2. Knowledge of research designs and analytic techniques used in psychopharmacological research (e.g., double-blind, drug washout, control groups, dose-response relationships, intent-to-treat analyses, endpoint analyses, within-subject and group designs, cross-over, use of “rescue” medications, and concurrent administration of other drugs [including OTC and nonpsychotropic medications])
 3. Knowledge of the FDA drug development process (i.e., Phase I: Human Pharmacology; Phase II: Therapeutic Exploratory; Phase III: Therapeutic Confirmatory; Phase IV: Therapeutic Use)
 4. Knowledge of measurement issues in psychopharmacological research (e.g., sample heterogeneity;



sample size; random assignment of participants to treatment conditions; drug levels; outcome measures; standard monitoring procedures for side effects, adverse effects, and drug levels; interpretation issues; and inter-observer reliability)

5. Knowledge of community and participatory research strategies to enhance the relevance of studies on ethnic/cultural and other underserved populations (e.g., use of community advisory boards, community involvement in research planning)
6. Knowledge of regulatory issues in psychopharmacological research (e.g., FDA regulations, informed consent, research ethics, Institutional Review Board [IRB], safety, abuse liability, follow-up, compassionate care)
7. Knowledge of how to critically review clinical research data and use the information for making treatment decisions
8. Knowledge of current status of research regarding specific medications

Content Area 10: Professional, legal, ethical, and interprofessional issues (7%)

Refers to knowledge of ethics, standards of care, laws, and regulations relevant to the practice of psychology involving psychopharmacology.

1. Knowledge of ethical codes and standards as they pertain to pharmacological practice and research (e.g., the APA Ethical Principles of Psychologists and Code of Conduct, APA Standards for Providers of Psychological Services, AERA/APA/NCME Standards for Educational and Psychological Testing, ASPPB Code of Conduct, Joint Commission on the Accreditation of Healthcare Organizations [JCAHO] Standards)
2. Knowledge of practice guidelines and standards of care for prescribing psychotropic medications (e.g., documentation requirements, nomenclature for writing prescriptions, written and verbal orders, elements of informed consent, patient education, institutional formulary restrictions, chemical restraints, Agency for Health Care Policy and Research [AHCPR] guidelines,

National Institute of Mental Health [NIMH] consensus panel protocols, health care organization rules)

3. Knowledge of federal and state laws and statutes for prescribing psychotropic medications (e.g., FDA regulations, Medicare, controlled substance laws, specifics of psychologists' licensing laws, patient's rights)
4. Knowledge of issues involved in collaboration/consultation with other health care providers who are also prescribers and/or psychotherapists (e.g., "ownership" of patients, when to refer or seek consultation, differences in theoretical orientation, triangulation, appropriate levels of disclosure)
5. Knowledge of provision of psychotropic medications within specific environments (e.g., structured and unstructured environments, classroom and home, correctional institutions, military, substance abuse facilities)
6. Knowledge of patient's rights (e.g., informed consent, right to refuse treatment, right to treatment within the least restrictive environment, duty to warn, and privileged communication)
7. Knowledge of issues regarding relationships with pharmaceutical companies (e.g., acceptance of gifts, revealing sources of funding and affiliations)

Note: The complex of factors influencing human functioning noted in Content Area 1, i.e., biological (e.g., genetic, sex, age, disease), psychological (e.g., cognitive, emotional, dynamic, motivational, behavioral), psychosocial (e.g., gender, cultural/ ethnicity, interpersonal), and ecological/environmental factors should be considered as they apply across all knowledge areas.

College of Professional Psychology

750 First Street, NE • Washington, DC 20002-4242
Telephone: (202) 336-6100 • Fax: (202) 336-5797
Email: apapcollege@apa.org



AMERICAN
PSYCHOLOGICAL
ASSOCIATION
PRACTICE ORGANIZATION



APPLICATION MATERIALS

Psychopharmacology Examination for Psychologists (PEP)

The APA Practice Organization's College of Professional Psychology offers the PEP to licensed psychologists who meet eligibility requirements. Membership in the American Psychological Association is not required.

The PEP was developed for use by state and provincial psychology licensing authorities in setting requirement to implement laws permitting the prescribing of psychotropic medications by qualified psychologists. It is only by the actions of state and provincial legislatures that authority to prescribe psychotropic medications may be conferred.

PEP scores are maintained in a secure and confidential databank and are reported to state and provincial psychology licensing authorities or other entities upon examinee written authorization.

REQUIREMENTS FOR ADMISSION TO THE PEP

The requirements for admission to the PEP include:

- doctoral degree in psychology
- provision of health services in psychology
- current psychology license in good standing to engage in the independent practice of psychology, and
- successful completion of a postdoctoral program of psychopharmacology education in an organized program of intensive didactic instruction offered by a regionally accredited institution of higher learning, one of the American Psychological Association's approved sponsors of continuing education, or an organization that is approved to provide continuing education by a state or provincial psychology licensing authority. The program of education must consist of a minimum of

300 contact hours in the following core areas of instruction: neurosciences, pharmacology and psychopharmacology, physiology and pathophysiology, physical and laboratory assessment, and clinical pharmacotherapeutics

BEFORE YOU PROCEED

- You must enclose all information in application for admission to the PEP in one envelope, including forms, transcript(s) and payment. A pre-addressed envelope is provided for this purpose.
- Your application will not be processed without all required information, including the appropriate payment.
- No staples or paper clips, please.

FEES

The fees for the PEP are listed below. Use the Application Fee Payment Form (page 19) to pay your application fee.

Application Fees:

Practice Assessment Payer (PA)	\$325
APA Member (non-refundable)	\$395
Non-Member (non-refundable)	\$425
Examination Fee	\$200
(paid at the time you schedule your testing session)	

SPECIAL ACCOMMODATIONS FOR TESTING

Most special needs for testing can be accommodated. If you require special accommodations, indicate YES to question #3 on the Application form at right, and refer to the section "Candidates with Disabilities" on page 6 of this booklet.



APPLICATION
Psychopharmacology Examination for Psychologists (PEP)

Please type or print

1. Name _____ Doctoral Degree _____
Mailing Address _____

Daytime Phone Number _____ Fax Number _____

Email Address _____

Social Security Number ____ - ____ - _____

APA Member Number (if applicable) 0000 ____ - _____

2. Institution Granting Doctoral Degree _____

Date of Doctoral Degree ____/____/____
Month Year

3. Will you require special accommodations? Yes No (If Yes, note policy on page 4.)

4. Psychology License

Licensing State or Province _____ License Number _____ Expiration Date ____/____/____
Month Day Year
Month and Year of Original Psychology License ____/____

Was your original psychology license based on your doctoral degree? Yes No
(If No, your licensure status does not meet the necessary eligibility requirements.)

Is your license to practice psychology current and in good standing? Yes No
(If No, your licensure status does not meet the necessary eligibility requirements.)

Be sure to enclose a current letter from your state or provincial licensing authority that verifies the fact that your license is current and in good standing.

Does this license confer upon you the right to engage in the independent practice of psychology without limitations or restrictions, such as the need for supervision or limitations on the services you may provide? Yes No

(If No, your licensure status does not meet the necessary eligibility requirements.)



5. Provision of Health Services

To be admitted to the PEP you must be a psychologist who provides health services. The APA Practice Organization, College of Professional Psychology defines health services as follows:

Health services include the delivery or supervision of prevention, assessment, consultation and/or therapeutic intervention services in psychology directly to individuals whose growth, adjustment, or functioning is actually impaired or is at risk for impairment.

Select ONE of the following ways to document the fact that you are a psychologist who provides health services. Check ONLY One:

- Current Practice:** I hereby declare that I have provided health services in psychology for at least 2 years during the last 5 years as a psychologist licensed to practice independently. Enclose Verification of the Provision of Health Services form (see page 21) and sign below:

Signature _____

- Listing in a Register:** Current listing in a nationally recognized register of psychologists who provide health services. Enclose a photocopy of your listing in the published register and of the copyright page.

- State or Provincial Recognition as a Health Service Provider:** Current recognition pursuant to state or provincial psychology licensing laws as a “Health Service Provider.” If your state or provincial licensing authority grants a “Health Service Provider” title, it is typically reflected in the documentation submitted pursuant to Section 4 (above). If it is not, enclose additional appropriate documentation from the state or province. The following states grant a “Health Service Provider” designation: IA, IN, KY, MA, MO, NC, OK, TN, and TX.

6. *The following optional information is requested to enable the APA Practice Organization, College of Professional Psychology to know more about psychologists who have applied for admission to the PEP. Information provided will have no bearing on your application for admission to the examination.*

Number of courses taken during **doctoral** level training involving physical sciences such as biology, anatomy, physiology/pathophysiology, neuroscience, pharmacology/psychopharmacology, etc. _____

Enter ONE code from the list below that reflects your primary work setting: _____

Work Setting Codes

Human Service Settings

- 31 Public general hospital
- 32 Private general hospital
- 33 City/county/state psychiatric hospital
- 34 Not-for-profit private psychiatric hospital
- 36 For-profit, private psychiatric hospital
- 35 Veterans Administration (VA) hospital
- 37 Military hospital (e.g., Air Force)
- 41 Individual private practice
- 42 Group psychological practice
- 43 Medical/psychological group practice
- 44 Outpatient mental health clinic, freestanding
- 45 Community mental health center or clinic (CMHC)
- 46 Health Maintenance Organization (HMO)
- 47 Counseling or guidance center (not school or college)
- 40 Nursing home
- 48 Special health services (e.g., substance abuse or mental retardation)
- 38 Independent Practice Association (IPA)
- 39 Preferred provider organization (PPO)
- 70 Other managed care
- 49 Other human service setting

Academic Settings

- 1 University: Psychology department
- 4 University: Other academic department or unit
- 7 University: Research center or institute
- 11 Four-year college: Psychology department
- 14 Four-year college: Other academic department or unit
- 17 Four-year college: Research center or institute
- 27 Other educational setting

Other Employment Settings

- 51 Self-employed (not private practice or independent consultant)
- 52 Consulting firm
- 53 Private research organization or lab
- 54 Government research organization or lab
- 55 Business or industry (excluding consulting firm or research organization)
- 56 Independent consultant
- 61 Criminal justice system
- 62 Military service (other than above settings)
- 63 Federal government agency (other than above settings)
- 64 State government agency (other than above settings)
- 65 Local government agency (other than above settings)
- 66 Other non-profit organization
- 69 Other non-educational or non-service setting not listed above



WAIVER AND ACKNOWLEDGMENT

I have applied to the APA Practice Organization, College of Professional Psychology for admission to the Psychopharmacology Examination for Psychologists (PEP). I hereby certify that the information provided in this application and its required enclosures is accurate and complete to the best of my knowledge and belief. I hereby attest to the fact that I have a doctoral degree and that my psychology license permits me to engage in the independent practice of psychology, is current and in good standing. I authorize the College of Professional Psychology to contact the state or provincial licensing authority through which I am licensed, the institution that granted my doctoral degree, and the program of study in which I obtained my psychopharmacology core area didactic education to verify the information I have submitted. I understand that the College of Professional Psychology has the right to refuse admission to the PEP if my application contains inaccurate, misleading or fraudulent information.

I understand that it is only state and provincial legislatures that have authority to confer the right to prescribe medications and that taking the PEP, in and of itself, will not affect my ability to either prescribe medications or to hold myself out as a psychologist who has the ability to prescribe medications. I also understand that the score I obtain on the PEP may or may not be accepted for purposes of awarding a licensure status or other status by a particular state or provincial licensing authority, or by any state or provincial licensing authority. I acknowledge that neither the College of Professional Psychology nor the American Psychological Association Practice Organization nor the American Psychological Association has made any representations to the contrary. I understand that the PEP is offered to me on a strictly voluntary basis and that the score I obtain on the examination will be retained in a secure location by the College of Professional Psychology to be reported to a licensing authority or other entity only upon my written request or as required by law. Additionally, I understand that my score will be used for analysis, along with the scores of other examinees, without violating the confidentiality of individual examinees.

I acknowledge the authority of the College of Professional Psychology to establish and maintain requirements for admission to the PEP and to reject or accept applicants for admission to the examination based on those requirements. I further agree that I will assert no claims, and hereby waive all claims, whether present or future, and will seek no other relief, against the APA Practice Organization, the American Psychological Association, or their Officers, Directors, employees or agents, for any damages, or any other form of injury, with regard to any aspect of the PEP, including, but not limited to, the examination content, the establishment and application of examination admission criteria, the establishment and application of scoring criteria and the reporting of examination results.

Signature _____ Date _____

NOTARY

On this _____ day of _____, 20 _____,
(Applicant) _____ personally appeared
before me and signed his or her signature above, having satisfactorily proven to be the person whose
signature appears above.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Signature of Notary Public _____

My commission expires _____

**APPLICATION FEE PAYMENT FORM**

Please type or print

Name _____

Address _____

Daytime Phone Number _____

APA Member Number (if applicable) 0000 _____ - _____

Please Note: Payment must be made in U.S. funds.

Check the appropriate non-refundable application fee:

- \$325 PA Payers*
- \$395 APA Members
- \$425 Non-Members

* APA Practice Assessment (PA) Payer

Form of Payment

Check (Make payable to: APA Practice Organization) VISA MasterCard American Express

Card Number _____ Expiration ____ / ____

Name as it appears on credit card _____

Signature _____

I understand that an additional examination fee of \$200 must be paid at the time I schedule my examination.

FOR APA USE ONLY
006-4910-26781-MGR-PEP-APP



**VERIFICATION OF THE PROVISION OF HEALTH SERVICES
Current Practice Method Only**

Psychopharmacology Examination for Psychologists (PEP)

Applicant's Name _____

Applicant's Address _____

To the Psychologist, Physician, Social Worker or Nurse:

The above-named individual is applying to the APA Practice Organization, College of Professional Psychology for admission to the Psychopharmacology Examination for Psychologists (PEP). The applicant is required to document that he or she has been engaged in the provision of health services in psychology for at least 2 years during the last 5 years. You have been identified by the applicant as a licensed professional who has knowledge of the applicant's practice in psychology. In this capacity we ask you to read the statement below and determine whether, based on your own knowledge, it applies to the applicant. Return this completed form directly to the applicant who will submit it to the APA Practice Organization, College of Professional Psychology with his or her application.

Verification Statement

Based on my own knowledge, I hereby verify that _____
has been engaged for at least 2 of the last 5 years in the delivery or supervision of prevention, assessment, consultation and/or therapeutic intervention services in psychology directly to individuals whose growth, adjustment, or functioning is actually impaired or is at risk for impairment.

Check the box that indicates your licensed profession (ONLY these four are accepted):

Psychologist Social Worker Physician Nurse

Your Name _____

Address _____

Licensing State or Province _____

State or Provincial License Number _____ Expiration Date _____

Signature _____ Date _____

Please return this form directly to the applicant.



PSYCHOPHARMACOLOGY DIDACTIC EDUCATION VERIFICATION FORM
Psychopharmacology Examination for Psychologists (PEP)

1. **Applicant's Name** _____
Admission to the PEP requires successful completion of a postdoctoral program of psychopharmacology education in an organized program of intensive didactic instruction. The program of education must be offered by a regionally accredited institution of higher learning, one of the American Psychological Association's approved sponsors of continuing education, or an organization that is approved to provide continuing education by a state or provincial psychology licensing authority. The program must consist of a minimum of 300 contact hours in the following core areas of instruction: neurosciences, pharmacology and psychopharmacology, physiology and pathophysiology, physical and laboratory assessment, and clinical pharmacotherapeutics.

Please provide the following information to document compliance with this requirement.

2. **Psychopharmacology Program Information**
Name of Program of Study _____
Mailing Address _____
Phone Number _____
Email Address _____
Contact Person _____ Title _____

3. **Admission to Program** _____ **Completion of Program** _____
month / day / year month / day / year

4. **Check one of the following boxes and provide the requested information to indicate whether your postdoctoral program of didactic education in psychopharmacology was offered by a regionally accredited institution of higher learning, one of the American Psychological Association's approved sponsors of continuing education, or an organization that is approved to provide continuing education by a state or provincial psychology licensing authority.**

If your postdoctoral program of didactic education in psychopharmacology was jointly offered, check ALL that apply and provide a transcript for ALL checked.

- Regionally accredited institution(s) of higher learning
Institution(s) of higher learning _____
- APA approved sponsor of continuing education
APA approved sponsor _____
- Approved by a state or provincial psychology licensing authority to provide continuing education
State or provincial licensing authority _____
Approved provider of continuing education _____

Enclose a copy of your transcript or other similar official documentation that confirms successful completion of your psychopharmacology program. Original is NOT required.



TO ENSURE YOUR APPLICATION IS COMPLETE

Please enclose in the pre-addressed envelope provided with this Application:

- Completed Application (pages 15–16)
- Licensure verification letter from state or provincial licensing authority (see page 15 for details)
- Documentation of provision of health services (see page 16 for options)
- Signed and notarized Waiver and Acknowledgment (page 17)
- Application Fee Payment Form (page 19) and check or credit card authorization.
- Psychopharmacology Didactic Education Verification Form (page 23)
- Transcript or other similar official documentation of successful completion of psychopharmacology core area didactic education (see page 23 for instructions)

MAIL TO:

**APA Practice Organization
College of Professional Psychology
750 First Street, NE
Washington, D.C. 20002-4242**

Telephone (202) 336–6100
Fax (202) 336–5797
Email apapcollege@apa.org



AMERICAN
PSYCHOLOGICAL
ASSOCIATION
PRACTICE ORGANIZATION

750 First Street, NE
Washington, DC 20002-4242
202-336-6100 • 202-336-5797 fax
apapcollege@apa.org