

APA GUIDELINES FOR THE UNDERGRADUATE PSYCHOLOGY MAJOR

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PREFACE

he APA Guidelines for the Undergraduate Psychology Major (hereinafter referred to as the Guidelines) captures a set of optimal expectations for performance at the completion of the baccalaureate degree by students who major in psychology. The document outlines 10 goals and suggested learning outcomes that represent reasonable departmental expectations for the undergraduate psychology major across educational contexts. The goals are divided into two major categories:

- Knowledge, skills, and values consistent with the science and application of psychology
- Knowledge, skills, and values consistent with liberal arts education that are further developed in psychology

Although the *Guidelines* can aid in curriculum design, goal setting, and assessment planning, faculty are encouraged to consider local factors, such as institutional and departmental missions and student characteristics, in their application. In this spirit, broad discussion of the document can facilitate departmental leadership in designing programs distinctively suited to the institution's mission and students' needs while attending to good practice benchmarks.

EXECUTIVE SUMMARY

Why Do We Need the APA Guidelines for the Undergraduate Psychology Major?

or some time, there has been widespread concern about the quality of education at all levels in the United States, along with increasing pressure for accountability. Current best practices in higher education rely on setting clear expectations for student learning, aligning curricula with these expectations, assessing student attainment, and using assessment results to effect changes that promote better student learning.

It was in this context that the Board of Educational Affairs (BEA) of the American Psychological Association (APA) appointed a task force to describe a set of learning goals and outcomes for student performance at the completion of the baccalaureate degree. The APA Guidelines for the Undergraduate Psychology Major was developed to articulate a common set of outcomes. A baccalaureate degree in psychology should document that students have the ability to think scientifically about behavior, the skills related to the conduct of research, and the values that reflect psychology as both a science and an applied discipline.

Variations in psychology's academic organization in institutions of higher education across the country make it difficult to achieve consensus on learning goals and outcomes. In some colleges and universities, psychology is part of a school or college comprising the social sciences. In others, psychology is aligned with the natural sciences, the humanities, or education. In addition to having organizational diversity, psychology departments differ with respect to programmatic emphases, student characteristics, faculty expertise, and resources. Undergraduate programs vary—as they should—to meet local, state, and regional needs. Despite these differences, the BEA task force developed goals and outcomes that could be applied broadly across diverse educational contexts (e.g., campus-based programs, online instruction) in the context of liberal education at the undergraduate level.

The *Guidelines* captures a set of optimal expectations for student performance at the completion of the baccalaureate degree. Applying

these to individual departments, faculty must take into account local factors such as institutional and departmental missions and student characteristics. Regardless of department size and resources, the *Guidelines* presents reasonable overarching goals for the undergraduate psychology curriculum. Toward this end, these guidelines were developed to aid in curriculum design, goal setting, and assessment planning for the psychology major.

In addition to providing guidance about what constitutes a high-quality undergraduate education for majors in psychology, the *Guidelines* responds to a number of other important related needs:

- The *Guidelines* firmly establishes the major as a science and reinforces a common identity within the discipline. Promoting psychology as a science is increasingly important given the enormous breadth of the discipline and the diversity of professional opportunities and psychological perspectives, including new interdisciplinary configurations.
- The *Guidelines* describes a set of learning goals and outcomes for the psychology major. By making the expectations (outcomes) clear, the *Guidelines* serves as the basis for assessment plans.
- Development of the *Guidelines* is an important step for the discipline and a means of contributing to a growing international effort to articulate goals and outcomes for the major. Dissemination and implementation of the *Guidelines* could also generate research on effective practices in undergraduate education in psychology.
- Building on APA's earlier efforts when approving the *National Standards for the Teaching of High School Psychology* (APA, 1999) and the revised *National Standards for High School Psychology Curricula* (APA, 2005), the *Guidelines* continues APA's national focus on quality improvement. Completing expectations for appropriate education at the 4-year level adds an important piece of the overall education and training context in psychology (see Benjamin, 2001).
- The *Guidelines* provides a common set of outcomes that could aid in the development and evaluation of distance-learning courses and programs by promoting expectations for student learning comparable to those used in traditional classrooms.

Assumptions Underlying the Undergraduate Learning Outcomes

he learning goals and outcomes in this document rest on several key assumptions about the psychology major, the dynamic nature of the discipline, the diversity of psychology departments across the United States, and the assessment of performance relative to outcomes. As a framework for understanding the *Guidelines*, these assumptions are that the learning goals and outcomes

- encompass the knowledge, skills, and values that are important for students to acquire in an undergraduate major in psychology within the context of a liberal education;
- incorporate the broad theoretical and research bases of psychology;
- reflect the use of a variety of pedagogical models, including servicelearning, research and laboratory experiences, online applications, and traditional classroom approaches;
- foster the development of lifelong learning skills and include competencies that will prepare students for entrance into the workforce or acceptance into graduate or professional schools upon receipt of the baccalaureate degree;
- reflect the importance of diversity and cross-cultural issues in the discipline, as well as the growing internationalization of psychology and the need to prepare psychology majors to understand behavior and experience that may transcend geographic boundaries;
- apply to psychology departments across institutional settings that contribute to student achievement at the baccalaureate level;
- reflect the views that any outcome is meaningful only to the extent that it is accurately assessed and that the outcomes assessment process will focus on student performance if it is to improve learning and teaching;
- allow for many legitimate ways to reach a learning outcome, especially given that outcomes are developmental in nature; individual psychology departments determine the performance levels appropriate for their students and the assessment procedures and tools appropriate to measuring their students' performance.

Use of the Term Guidelines

he term *guidelines* generally refers to pronouncements, statements, or declarations that recommend or suggest specific actions, goals, or endeavors. In this spirit, they are aspirational in intent. They are not intended to be mandatory or exhaustive and may not be applicable to every situation, nor are they intended to take precedence over the judgment of college and university faculty.

This use of the term *guidelines* is consistent with general practices in the undergraduate education community. A primary consideration related to the nature of the document is the issue of academic freedom. The American Association of University Professors (AAUP) published a seminal paper articulating the principles of academic freedom meant to ensure the fundamental advancement of truth (see AAUP, 2006). Teachers are explicitly granted the right to exercise freedom in their discussions about respective disciplinary matters. Therefore, the *Guidelines* should be used only as a broad and general framework for the undergraduate psychology major.

The term *guidelines* is also consistent with terminology used by other scientific organizations. The American Chemical Society (ACS; 2003) provides guidelines for the undergraduate major in chemistry. Although the ACS guidelines are for the purpose of accreditation, they offer only general curricular goals rather than an exact curriculum. Similarly, the American Physical Society, through the American Association of Physics Teachers (see Hilborn, Howes, & Krane, 2003), provides general guidance for the undergraduate major in their report on the status of the undergraduate major in physics.

Finally, as used in this document, the term *guidelines* is consistent with the provisions of the APA policy on *Developing and Evaluating Standards and Guidelines Related to Education and Training in Psychology* (Section I C[1]) (APA, 2004), as passed by the APA Council of Representatives.

Process of Developing the Guidelines

ive reports preceded the development of these guidelines, and many individuals and groups contributed to their initial development. Study of the curriculum can be traced back to the summer

of 1951 with the issuance of the Cornell Conference Report. This report emphasized psychology as a science grounded in the tradition of the liberal arts. The report merely suggested that one introductory course should be followed by intermediate core courses (e.g., statistics and perception) and finally by advanced courses (e.g., social psychology and learning). The Michigan Conference Report followed approximately 10 years later, with less consensus about the structure of the undergraduate curriculum. Similarly, the Kulik Report (in 1973) and the Schreirer and Rogers Report (in 1985) provided only descriptive information about the undergraduate major (for more information on these reports, see Brewer et al., 1993). Ultimately, at the St. Mary's Conference in 1991, Charles Brewer and his committee from the APA National Conference on Enhancing the Quality of Undergraduate Education in Psychology provided a broad structure for the undergraduate curriculum. Defining seven goals for the undergraduate major, Brewer and his colleagues suggested that the curriculum should include an introductory course, methodology courses, subfield content courses, and an integrative experience.

It was in this context, together with the movement in higher education to identify competencies as learning objectives, that the BEA appointed the Task Force on Psychology Major Competencies in 2000 to develop learning goals and outcomes for the undergraduate psychology major. Members of the task force represented a variety of institutional perspectives on the nature of the undergraduate curriculum and its aims. Under the leadership of Jane S. Halonen (chair), task force members included Drew C. Appleby, Charles L. Brewer, William Buskist, Angela R. Gillem, Diane Halpern, G. William Hill IV, Margaret A. Lloyd, Jerry L. Rudmann, and Valjean M. Whitlow. APA staff who contributed their expertise included Bernard C. Beins, now at Ithaca College, Maureen McCarthy, presently at Kennesaw State University, and Martha Boenau of the APA Education Directorate.

In the early stages of their work, the task force patterned its document after the guidelines developed by the Task Force on Outcomes for the California State University System, led by Mary Allen and Diane Halpern (past president of APA). The task force prepared a document that would serve as a resource to undergraduate psychology departments and faculty to assist with academic review processes and curriculum planning. As described in the *Undergraduate Psychology Major Learning Goals and Outcomes* (APA, 2002b), the task force identified 10

goals and suggested learning outcomes representing reasonable departmental expectations for the undergraduate psychology major across educational contexts. The goals were divided into two major categories: (a) knowledge, skills, and values consistent with the science and application of psychology and (b) knowledge, skills, and values consistent with liberal arts education that are further developed in psychology.

To extend representation to a diverse array of institutions and relevant organizations, the task force assembled an advisory panel to review drafts of the document. Through this process, the document was widely distributed to faculty at research universities, comprehensive universities, 4-year colleges, 2-year colleges, and high schools. Their comments were integrated into the *Guidelines*. The task force also sought and received helpful feedback from members of related professional organizations with interests in psychology curricula. A final version of this document was endorsed by the BEA in March 2002 and made available to the undergraduate community as a report published on the APA Education Directorate Web site (see APA, 2002b).

By July 2002, the report was disseminated broadly to APA governance groups and APA divisions, with a request for review and feedback. The *Guidelines* was also reviewed for attention to individual and cultural diversity issues consistent with the *Guidelines on Multicultural Education*, *Research, Practice, and Organizational Change for Psychologists* (APA, 2003); in addition, it was reviewed by the APA Committee on Ethnic Minority Affairs and the Committee on Lesbian, Gay and Bisexual Concerns. APA Boards and Committees received a final draft of the document in the spring of 2006. Subsequently, upon recommendation of the APA Board of Directors, the APA Council of Representatives adopted the *Guidelines* in August 2006.

Resource Documents

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n developing the *Guidelines*, the task force reviewed the existing guidelines used by science-based disciplinary societies similar to APA, such as the American Chemical Society, the American Physical Society (APS), and the American Society for Biochemistry and Molecular Biology (ASBMB). These guidelines on the undergraduate curriculum were found to be similar in structure to the APA guidelines. For example, ASBMB (see Voet et al., 2003) explicitly stated that it was

no longer recommending a course-based curriculum. Instead, ASBMB provided content and student-outcome-focused guidance. Additional resources included use of the APA Ethical Principles of Psychologists and Code of Conduct (APA, 2002a) and the Handbook for Enhancing Undergraduate Education in Psychology (McGovern, 1993). The content contained in the Guidelines is consistent with APA's Ethics Code.

Feedback

he *Guidelines* is a "living document." Accordingly, APA has established a systematic plan for periodically reviewing and revising such documents to reflect developments in the discipline and in education. Reviews will occur every 7 years, which is consistent with APA Association Rule 30-8.3 requiring cyclical review of approved standards and guidelines within periods not to exceed 10 years. Comments and suggestions are welcomed.

Feedback on the *Guidelines* may be sent to: Precollege and Undergraduate Education Education Directorate American Psychological Association 750 First Street, NE Washington, DC 20002-4242 202-336-6140

References

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American Association of University Professors. (2006). 1940 statement of principles on academic freedom and tenure with 1970 interpretive comments.

Washington, DC: Author. Retrieved March 7, 2007, from www.aaup.org/AAUP/pubsres/policydocs/1940statement.htm

American Chemical Society, Committee on Professional Training. (2003). Undergraduate professional education in chemistry: Guidelines and procedures. Washington, DC: Author. Retrieved March 28, 2005, from www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC= education\cpt\guidelines.html

American Psychological Association. (1999). *National standards for the teaching of high school psychology*. Washington, DC: Author.

- American Psychological Association. (2002a). Ethical principles of psychologists and code of conduct. *American Psychologist*, 57, 1060–1073.
- American Psychological Association, Task Force on Undergraduate Psychology Major Competencies. (2002b). *Undergraduate psychology major learning goals and outcomes: A report*. Washington, DC: Author. Retrieved March 7, 2007, from www.apa.org/ed/pcue/taskforcereport.pdf
- American Psychological Association. (2003). Guidelines on multicultural education, training, research, practice, and organizational change for psychologists. *American Psychologist*, *58*, 377–402.
- American Psychological Association, Council of Representatives. (2004).

 Developing and evaluating standards and guidelines related to education and training in psychology: Context, procedures, criteria, and format. Washington, DC: Author. Retrieved March 13, 2007, from www.apa.org/ed/graduate/beaguidelines_04Final.pdf
- American Psychological Association. (2005). *National standards for high school psychology curricula*. Washington, DC: Author. Retrieved March 7, 2007, from www.apa.org/ed/natlstandards.html
- Benjamin, L. T. (2001). American psychology's struggle with its curriculum: Should a thousand flowers bloom? *American Psychologist*. 56, 735–742.
- Brewer, C. L., Hopkins, J. R., Kimble, G. A., Matlin, M. W., McCann, L. I.,
 McNeil, O. V., et al. (1993). Curriculum. In T. V. McGovern (Ed.), Handbook for enhancing undergraduate education in psychology (pp. 161–182).
 Washington, DC: American Psychological Association.
- Hilborn, R. C., Howes, R. H., & Krane, K. S. (2003). Strategic programs for innovations in undergraduate physics: Project report. College Park, MD:
 American Association of Physics Teachers. Retrieved March 28, 2005, from www.aapt.org/Projects/ntfup.cfm
- McGovern, T. V. (Ed.). (1993). Handbook for enhancing undergraduate education in psychology. Washington, DC: American Psychological Association.
- Voet, J. G., Bell, E., Boyer, R., Boyle, J, O'Leary, M., & Zimmerman, J. K. (2003). Recommended curriculum for a program in biochemistry and molecular biology. *Biochemistry and Molecular Biology Education*, 31, 161–162. Retrieved March 28, 2005, from www.asbmb.org/asbmb/site.nsf/Sub/UndergradCurriculum?Opendocument

APA GUIDELINES FOR THE UNDERGRADUATE PSYCHOLOGY MAJOR

Structure of the Guidelines

he APA Guidelines for the Undergraduate Psychology Major provides details for 10 suggested goals and related learning outcomes for the psychology major, grouped into two major categories.

Categories of Learning Goals and Outcomes

I. Knowledge, Skills, and Values Consistent With the Science and Application of Psychology

This category represents activities that provide hallmarks of psychology education. Responsibility for development in and assessment of these areas rests primarily with the psychology faculty in coursework or psychology advising.

II. Knowledge, Skills, and Values Consistent With Liberal Arts Education That Are Further Developed in Psychology

This category includes activities that are usually part of a general education program or liberal education. Responsibility for student development in these areas and assessment of students' achievements tend to be shared across a broader range of disciplines than just psychology; however, psychology coursework can contribute to and expand upon these general education goals in significant ways. In turn, well-developed liberal education skills can contribute to student achievement within the psychology major.

Learning Goals

I. Knowledge, Skills, and Values Consistent With the Science and Application of Psychology

Goal 1: Knowledge Base of Psychology

Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.

Goal 2: Research Methods in Psychology

Students will understand and apply basic research methods in

psychology, including research design, data analysis, and interpretation.

Goal 3: Critical Thinking Skills in Psychology

Students will respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.

Goal 4: Application of Psychology

Students will understand and apply psychological principles to personal, social, and organizational issues.

Goal 5: Values in Psychology

Students will be able to weigh evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a discipline.

II. Knowledge, Skills, and Values Consistent With Liberal Arts Education That Are Further Developed in Psychology

Goal 6: Information and Technological Literacy

Students will demonstrate information competence and the ability to use computers and other technology for many purposes.

Goal 7: Communication Skills

Students will be able to communicate effectively in a variety of formats.

Goal 8: Sociocultural and International Awareness

Students will recognize, understand, and respect the complexity of sociocultural and international diversity.

Goal 9: Personal Development

Students will develop insight into their own and others' behavior and mental processes and apply effective strategies for self-management and self-improvement.

Goal 10: Career Planning and Development

Students will emerge from the major with realistic ideas about how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings.

Learning Outcomes

Each of the 10 goals includes specific, numbered outcomes that articulate suggested strategies for how the goals can be demonstrated. Each goal can be addressed in departments' curriculum designs and assessment plans; however, departments may choose formally to emphasize selected goals and outcomes depending on their emphases, traditions, or resources. Separate subpoints for particular outcomes provide further assistance in developing performance expectations.

An emphasis on certain content areas included as part of the learning goals and outcomes should not be construed as dictating course requirements. For example, the emphasis on the development of career skills does not imply that these activities must transpire in a formal course on careers in psychology. Similarly, the *Guidelines* should not be interpreted as advocating that separate courses in the history of psychology or group dynamics be included in the undergraduate curriculum. Rather, these guidelines are intended to empower and encourage departments to determine contexts in which students can learn those relevant skills and perspectives.

I. Knowledge, Skills, and Values Consistent With the Science and Application of Psychology

GOAL 1: Knowledge Base of Psychology

Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.

- 1.1 Characterize the nature of psychology as a discipline.
 - a. Explain why psychology is a science
 - b. Identify and explain the primary objectives of psychology: describing, understanding, predicting, and controlling behavior and mental processes
 - c. Compare and contrast the assumptions and methods of psychology with those of other disciplines
 - d. Describe the contributions of psychology perspectives to interdisciplinary collaboration

- 1.2 Demonstrate knowledge and understanding representing appropriate breadth and depth in selected content areas of psychology:
 - a. Theory and research representing each of the following four general domains:
 - (1) Learning and cognition
 - (2) Individual differences, psychometrics, personality, and social processes, including those related to sociocultural and international dimensions
 - (3) Biological bases of behavior and mental processes, including physiology, sensation, perception, comparative, motivation, and emotion
 - (4) Developmental changes in behavior and mental processes across the life span
 - b. The history of psychology, including the evolution of methods of psychology, its theoretical conflicts, and its sociocultural contexts
 - c. Relevant levels of analysis: cellular, individual, group/systems, and society/culture
 - d. Overarching themes, persistent questions, or enduring conflicts in psychology, such as
 - (1) The interaction of heredity and environment
 - (2) Variability and continuity of behavior and mental processes within and across species
 - (3) Free will versus determinism
 - (4) Subjective versus objective perspective
 - (5) The interaction of mind and body
 - (6) Applicability of theories and measures across societal and cultural groups
 - e. Relevant ethical issues, including a general understanding of the APA Ethics Code
- 1.3 Use the concepts, language, and major theories of the discipline to account for psychological phenomena.
 - a. Describe behavior and mental processes empirically, including operational definitions
 - b. Identify antecedents and consequences of behavior and mental processes
 - c. Interpret behavior and mental processes at an appropriate level of complexity

- d. Use theories to explain and predict behavior and mental processes
- e. Integrate theoretical perspectives to produce comprehensive and multifaceted explanations
- 1.4 Explain major perspectives of psychology (e.g., behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural).
 - a. Compare and contrast major perspectives
 - b. Describe advantages and limitations of major theoretical perspectives

GOAL 2: Research Methods in Psychology

Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.

- 2.1 Describe the basic characteristics of the science of psychology.
- 2.2 Explain different research methods used by psychologists.
 - a. Describe how various research designs address different types of questions and hypotheses
 - b. Articulate strengths and limitations of various research designs, including distinguishing between qualitative and quantitative methods
 - c. Distinguish the nature of designs that permit causal inferences from those that do not
 - d. Describe how the values system of the researcher can influence research design and decisions
- 2.3 Evaluate the appropriateness of conclusions derived from psychological research.
 - a. Interpret basic statistical results
 - b. Distinguish between statistical significance and practical significance
 - c. Describe effect size and confidence intervals
 - d. Evaluate the validity of conclusions presented in research reports

- 2.4 Design and conduct basic studies to address psychological questions using appropriate research methods.
 - a. Locate and use relevant databases, research, and theory to plan, conduct, and interpret results of research studies
 - b. Formulate testable research hypotheses, based on operational definitions of variables
 - c. Use reliable and valid measures of variables of interest
 - d. Select and apply appropriate methods to maximize internal and external validity and reduce the plausibility of alternative explanations
 - e. Collect, analyze, interpret, and report data using appropriate statistical strategies to address different types of research questions and hypotheses
 - f. Recognize that theoretical and sociocultural contexts as well as personal biases may shape research questions, design, data collection, analysis, and interpretation
- 2.5 Follow the APA Ethics Code in the treatment of human and nonhuman participants in the design, data collection, interpretation, and reporting of psychological research.
- 2.6 Generalize research conclusions appropriately based on the parameters of particular research methods.
 - a. Exercise caution in predicting behavior based on limitations of single studies
 - b. Recognize the limitations of applying normative conclusions to individuals
 - c. Acknowledge that research results may have unanticipated societal consequences
 - d. Recognize that individual differences and sociocultural contexts may influence the applicability of research findings

GOAL 3: Critical Thinking Skills in Psychology

Respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.

Suggested Learning Outcomes

3.1 Use critical thinking effectively.

- a. Evaluate the quality of information, including differentiating empirical evidence from speculation and the probable from the improbable
- b. Identify and evaluate the source, context, and credibility of behavioral claims
- c. Challenge claims that arise from myth, stereotype, or untested assumptions
- d. Use scientific principles and evidence to resolve conflicting claims
- e. Recognize and defend against common fallacies in thinking
- f. Avoid being swayed by appeals to emotion or authority
- g. Evaluate popular media reports of psychological research
- h. Demonstrate an attitude of critical thinking that includes persistence, open-mindedness, tolerance for ambiguity, and intellectual engagement
- i. Make linkages or connections between diverse facts, theories, and observations

3.2 Engage in creative thinking.

- a. Intentionally pursue unusual approaches to problems
- b. Recognize and encourage creative thinking and behaviors in others
- c. Evaluate new ideas with an open but critical mind
- 3.3 Use reasoning to recognize, develop, defend, and criticize arguments and other persuasive appeals.
 - a. Identify components of arguments (e.g., conclusions, premises/assumptions, gaps, counterarguments)
 - b. Distinguish among assumptions, emotional appeals, speculations, and defensible evidence
 - c. Weigh support for conclusions to determine how well reasons support conclusions
 - d. Identify weak, contradictory, and inappropriate assertions
 - e. Develop sound arguments based on reasoning and evidence

3.4 Approach problems effectively.

- a. Recognize ill-defined and well-defined problems
- b. Articulate problems clearly
- c. Generate multiple possible goals and solutions
- d. Evaluate the quality of solutions and revise as needed
- e. Select and carry out the best solution

GOAL 4: Application of Psychology

Understand and apply psychological principles to personal, social, and organizational issues.

Suggested Learning Outcomes

- 4.1 Describe major applied areas (e.g., clinical, counseling, industrial/organizational, school, etc.) and emerging (e.g., health, forensics, media, military, etc.) applied areas of psychology.
- 4.2 Identify appropriate applications of psychology in solving problems, such as:
 - a. The pursuit and effect of healthy lifestyles
 - b. Origin and treatment of abnormal behavior
 - c. Psychological tests and measurements
 - d. Psychology-based interventions in clinical, counseling, educational, industrial/organizational, community, and other settings and their empirical evaluation
 - e. The resolution of interpersonal and intercultural conflicts
- 4.3 Articulate how psychological principles can be used to explain social issues and inform public policy.
 - a. Recognize that sociocultural contexts may influence the application of psychological principles in solving social problems
 - b. Describe how applying psychological principles can facilitate appropriate change in institutions and in society
 - c. Articulate the role of psychology in developing, designing, and disseminating public policy
- 4.4 Apply psychological concepts, theories, and research findings as these relate to everyday life.
- 4.5 Recognize that ethically complex situations can develop in the application of psychological principles.

GOAL 5: Values in Psychology

Value empirical evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a science.

Suggested Learning Outcomes

- 5.1 Recognize the necessity of ethical behavior in all aspects of the science and practice of psychology.
- 5.2 Demonstrate reasonable skepticism and intellectual curiosity by asking questions about causes of behavior.
- 5.3 Seek and evaluate scientific evidence for psychological claims.
- 5.4 Tolerate ambiguity and realize that psychological explanations are often complex and tentative.
- 5.5 Recognize and respect human diversity.
 - a. Anticipate that psychological explanations may vary across populations and contexts
 - b. Exhibit sensitivity to issues of power, privilege, and discrimination
- 5.6 Assess and justify their engagement with respect to civic, social, and global responsibilities.
- 5.7 Understand the limitations of their psychological knowledge and skills.

II. Knowledge, Skills, and Values Consistent With Liberal Arts Education That Are Further Developed in Psychology

GOAL 6: Information and Technological Literacy

Demonstrate information competence and the ability to use computers and other technology for many purposes.

- 6.1 Demonstrate information competence at each stage in the following process:
 - a. Formulate a researchable topic that can be supported by database search strategies
 - b. Locate and choose relevant sources from appropriate media, which may include data and perspectives outside traditional psychology and Western boundaries

- c. Use selected sources after evaluating their suitability based on
 - (1) Appropriateness, accuracy, quality, and value of the source
 - (2) Potential bias of the source
 - (3) The relative value of primary versus secondary sources, empirical versus nonempirical sources, and peer-reviewed versus non-peer-reviewed sources
- d. Read and accurately summarize the general scientific literature of psychology
- 6.2 Use appropriate software to produce understandable reports of the psychological literature, methods, and statistical and qualitative analyses in APA or other appropriate style, including graphic representations of data.
- 6.3 Use information and technology ethically and responsibly.
 - a. Quote, paraphrase, and cite correctly from a variety of media sources
 - b. Define and avoid plagiarism
 - c. Avoid distorting statistical results
 - d. Honor commercial and intellectual copyrights
- 6.4 Demonstrate these computer skills:
 - a. Use basic word processing, database, e-mail, spreadsheet, and data analysis programs
 - b. Search the Web for high-quality information
 - c. Use proper etiquette and security safeguards when communicating through e-mail

GOAL 7: Communication Skills

Communicate effectively in a variety of formats.

Suggested Learning Outcomes

- 7.1 Demonstrate effective writing skills in various formats (e.g., essays, correspondence, technical papers, note taking) and for various purposes (e.g., informing, defending, explaining, persuading, arguing, teaching).
 - a. Demonstrate professional writing conventions (e.g., grammar, audience awareness, formality) appropriate to purpose and context
 - b. Use APA style effectively in empirically based reports, literature reviews, and theoretical papers

- 7.2 Demonstrate effective oral communication skills in various formats (e.g., group discussion, debate, lecture) and for various purposes (e.g., informing, defending, explaining, persuading, arguing, teaching).
- 7.3 Exhibit quantitative literacy.
 - a. Apply basic mathematical concepts and operations to support measurement strategies
 - b. Use appropriate and relevant probability and statistical analyses to facilitate interpretation of measurements
 - c. Articulate clear and appropriate rationale for choice of information conveyed in charts, tables, figures, and graphs
 - d. Interpret quantitative visual aids accurately, including showing vigilance about misuse or misrepresentation of quantitative information
- 7.4 Demonstrate effective interpersonal communication skills.
 - a. Listen accurately and actively
 - b. Use psychological concepts and theory to understand interactions with others
 - c. Identify the impact or potential impact of one's behaviors on others
 - d. Articulate ideas thoughtfully and purposefully
 - e. Use appropriately worded questions to improve interpersonal understanding
 - f. Attend to nonverbal behavior and evaluate its meaning in the communications context
 - g. Adapt style to communicate sensitively and effectively with diverse ethnic and cultural partners
 - h. Provide constructive feedback to colleagues in oral and written formats
- 7.5 Exhibit the ability to collaborate effectively.
 - a. Work with groups to complete projects within reasonable time frames
 - b. Solicit and integrate diverse viewpoints
 - c. Manage conflicts appropriately and ethically
 - d. Develop relevant workplace skills: mentoring, interviewing, crisis management

GOAL 8: Sociocultural and International Awareness

Recognize, understand, and respect the complexity of sociocultural and international diversity.

Suggested Learning Outcomes

- 8.1 Interact effectively and sensitively with people of diverse abilities, backgrounds, and cultural perspectives.
- 8.2 Examine the sociocultural and international contexts that influence individual differences.
- 8.3 Explain how individual differences influence beliefs, values, and interactions with others and vice versa.
- 8.4 Understand how privilege, power, and oppression may affect prejudice, discrimination, and inequity.
- 8.5 Recognize prejudicial attitudes and discriminatory behaviors that might exist in themselves and in others.
- 8.6 Predict how interaction among diverse people can challenge conventional understanding of psychological processes and behavior.

GOAL 9: Personal Development

Develop insight into their own and others' behavior and mental processes and apply effective strategies for self-management and self-improvement.

- 9.1 Reflect on their experiences and find meaning in them.
 - a. Identify their personal, sociocultural, and professional values
 - b. Demonstrate insightful awareness of their feelings, emotions, motives, and attitudes based on psychological principles
- 9.2 Apply psychological principles to promote personal development.
 - a. Demonstrate self-regulation in setting and achieving goals
 - b. Self-assess performance quality accurately
 - c. Incorporate feedback for improved performance
 - d. Purposefully evaluate the quality of their thinking (metacognition)

- 9.3 Enact self-management strategies that maximize healthy outcomes.
- 9.4 Display high standards of personal integrity with others.
- 9.5 Seek input from and experiences with diverse people to enhance the quality of solutions.

GOAL 10: Career Planning and Development

Pursue realistic ideas about how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings that meet personal goals and societal needs.

- 10.1 Apply knowledge of psychology (e.g., decision strategies, life span processes, psychological assessment, types of psychological careers) when formulating career choices.
- 10.2 Identify the types of academic experience and performance in psychology and the liberal arts that will facilitate entry into the workforce, postbaccalaureate education, or both.
- 10.3 Describe preferred career paths based on accurate self-assessment of abilities, achievement, motivation, and work habits.
- 10.4 Identify and develop skills and experiences relevant to achieving selected career goals.
- 10.5 Articulate how changing societal needs can influence career opportunities and foster flexibility about managing changing conditions.
- 10.6 Demonstrate an understanding of the importance of lifelong learning and personal flexibility to sustain personal and professional development as the nature of work evolves.



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