

Proposal

Bachelor of Science in Psychology

School/College and Department/Unit: UHM Department of Psychology, Social Science,
College of Arts and Sciences

Chair/Convener of Planning Committee: Lorey K. Takahashi, Undergraduate Chair

Program Category: New

Level of Program or Major: Undergraduate

Degree Proposed: Bachelor of Science (B.S.) in Psychology

Proposed Date of Implementation: Fall semester 2012

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1. Program and Learning Objectives and Goals

1A. Program objectives and goals.

In the last 10 years, the Department of Psychology at the University of Hawaii at Manoa (UHM) has enrolled some of the highest numbers of undergraduates in the College of Arts & Sciences. Upon graduation, many psychology majors use their B.A. degree to obtain jobs in private industry and public sectors. However, a proportion of our high achieving undergraduates in Psi Chi, the International Honor Society in Psychology, and in the Psychology Honors Program, often prepare to enter graduate school in psychology or professional schools, such as law, medicine, and pharmacology. Nonetheless, those high GPA Psychology students who are ready to graduate and planning to pursue an advanced degree especially in a neuroscience related research field or medical training may defer their graduation or graduate and return as a non-classified student to enroll in natural science foundation courses in order to achieve competitive GRE or MCAT scores. Only after successful completion of natural sciences courses, e.g., chemistry, biology, physics, etc., and competitive test scores will students apply or reapply for advanced training in the neuroscience/biomedical related field. Therefore, the proposed Bachelor of Science in Psychology is designed especially to benefit students with a strong interest in enrolling in research-intensive Ph.D. psychology programs or professional biomedical related schools. The B.S. degree student will benefit by concurrently exposing them to both psychology and several relevant natural science courses. Importantly, the B.S. degree in Psychology can be accomplished within a projected 4-year period and will require no additional departmental resources. It should also be noted that the B.S. degree is likely to enhance not only the preparation of Psychology undergraduates considering a research-intensive Ph.D. or biomedical program but may also be attractive to College of Natural Sciences B.S. undergraduates with interest in the behavioral sciences who may wish to declare Psychology as a double major.

1B. Student learning objectives and goals.

The Undergraduate Psychology Learning Goals and Outcomes are considered reasonable department expectations for the psychology major in U.S. institutions of higher education as proposed by the American Psychological Association Task Force (see: <http://www.apa.org/ed/governance/bea/assessment-cyberguide-v2.pdf>). In the last few years, our Psychology faculty and lecturers are applying these goals and outcomes in their teaching and research activities as a means to achieve the mission and assessment of Psychology. For example, instructors of PSY 212 Research Methods will focus on achieving Goal 2: Research Methods in Psychology, whereas instructors of the upper Division PSY seminars will emphasized Goal 3: Critical thinking. Although the APA Task force formulated these SLO to apply broadly to B.A. and B.S Psychology students, we expect the B.S. student exposed to additional seminars, quantitative, and research courses in Psychology will acquire a strong foundation to excel in some of the objectives such as those in Goals 2, 3, 6, and 7.

Goal 1. Knowledge Base of Psychology

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

Student Learning Outcomes:

1. Describe the nature of psychology as a discipline
2. Use concepts, language, and major theories of the discipline to account for psychological phenomena
3. Explain major perspectives of psychology (e.g., behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural)
4. Demonstrate knowledge and understanding representing appropriate breadth and depth in selected content areas of psychology

Goal 2. Research Methods in Psychology

Students will understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.

Student Learning Outcomes:

1. Describe the basic characteristics of the science of psychology
2. Explain different research methods used by psychologists
3. Evaluate the appropriateness of conclusions derived from psychological research
4. Design and conduct basic studies to address psychological questions using appropriate research methods.
5. Follow the APA Code of Ethics in the treatment of human and nonhuman participants in the design, data collection, interpretation, and reporting of psychological research
6. Generalize research conclusions appropriately based on the parameters of particular research methods

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.

Student Learning Outcomes:

1. Use critical thinking effectively
2. Engage in creative thinking
3. Use reasoning to recognize, develop, defend, and criticize arguments and other persuasive appeals
4. Approach problems effectively

Goal 4. Application of Psychology

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

Student Learning Outcomes:

1. Describe major applied areas of psychology (e.g., clinical, counseling, community, health)
2. Identify appropriate applications of psychology in solving problems
3. Articulate how psychological principles can be used to explain social issues and inform public policy
4. Apply psychological concepts, theories, and research findings as these relate to everyday life
5. Recognize that ethically complex situations can develop in the application of psychological principles

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 science.

Student Learning Outcomes:

1. Recognize the necessity for ethical behavior in the science and practice of psychology
2. Demonstrate reasonable skepticism and intellectual curiosity about the causes of behavior
3. Seek and evaluate scientific evidence for psychological claims
4. Tolerate ambiguity and realize that psychological explanations will often be complex and tentative
5. Recognize and respect human diversity and understand that psychological explanations may vary across populations and contexts
6. Assess and justify their engagement with respect to civic, social, and global responsibilities
7. Understand the limitations of psychological knowledge and skills

Goal 6. Information and Technological Literacy

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

Student Learning Outcomes:

- 1) Demonstrate information competence

- 2) Use appropriate software to produce reports of the psychological literature, methods, and statistical and quantitative analysis in APA or other appropriate style, including graphic representation of data
- 3) Use information and technology ethically and responsibly
- 4) Demonstrate computer skills

Goal 7: Communication Skills

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

Student Learning Outcomes:

- 1) Demonstrate effective writing skills in various formats (e.g., essays, technical papers) and for various purposes (e.g., informing, explaining, teaching)
- 2) Demonstrate effective oral communication skills in various formats (e.g., group discussion, debate, lecture) and for various purposes (e.g., informing, explaining, teaching)
- 3) Exhibit quantitative literacy
- 4) Demonstrate effective interpersonal communication skills
- 5) Exhibit the ability to collaborate effectively

Goal 8: Sociocultural and International Awareness

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

Student Learning Outcomes:

- 1) Interact effectively and sensitively with people from diverse backgrounds and cultural perspectives
- 2) Examine the sociocultural and international contexts that influence individuals
- 3) Explain how individual differences influence beliefs, values, and interactions
- 4) Understand how privilege, power, and oppression may affect prejudice, discrimination, and inequity
- 5) Recognize prejudicial attitudes and discriminatory behaviors that might exist in themselves and others

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

Student Learning Objectives:

- 1) Reflect on their experiences and find meaning in them
- 2) Apply psychological principles to promote personal development

- 3) Enact self-management strategies that maximize healthy outcomes
- 4) Display high standards of personal integrity with others

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.

Student Learning Objectives:

- 1) Apply knowledge of psychology to formulate career choices
- 2) Identify the types of academic experience and performance in psychology that will facilitate entry into the work force, post-baccalaureate education, or both
- 3) Describe preferred career paths based on accurate self-assessment of abilities, achievement, motivation, and work habits
- 4) Identify and develop skill and experiences relevant to achieving selective career goals
- 5) Demonstrate an understanding of the importance of lifelong learning and personal flexibility to sustain personal and professional development as the nature of work evolves

2. Relationship of Program Objectives to the Mission of the College and University

The approved draft of *Achieving Our Destiny, the University of Hawai‘ii at Mānoa 2011–2015 Strategic Plan* (<http://manoa.hawaii.edu/vision/>) includes strategic goals that our proposed B.S. degree in Psychology will satisfy. In particular, the objectives in Goal 1 are to increase student success and experiential learning opportunities across the curriculum. Specific objectives in Goal 2 and 3 are to increase student research and scholarship and expand mentoring. Our psychology students pursuing the B.S. degree will be required to take courses in the natural sciences that will broadly expand their knowledge. In addition, B.S. psychology students will take another semester of psychological statistics and psychology undergraduate seminars that reinforce their critical thinking, writing, and oral presentation skills. B.S. students will also be required to engage in two semesters of research training in the laboratory of a psychology faculty member. To summarize, our B.S. psychology students will meet objectives of UHM 2011-2015 Strategic Plan and they will be prepared to pursue higher educational and professional opportunities.

3. Program Description

The current *Bachelor of Arts in Psychology* offers broad coverage of psychology, flexibility in choosing courses, and sufficient background in psychology to enable good students to qualify for graduate psychology programs. The B.A. degree is also appropriate for those intending to go into law, business, education, or master’s level fields in counseling, rehabilitation, or social work.

The proposed ***Bachelor of Science in Psychology*** emphasizes breadth of preparation in science and requires more advanced psychology courses and research experiences. That is, the B.S. degree offers a research oriented undergraduate education that involves in-depth understanding of fundamental principles in psychological research and methods by which psychological knowledge is acquired. The additional research training and quantitative courses will be useful for graduate research training in psychology, for professional biomedical professions, and for research jobs (not necessarily in psychology). Thus, the B.S in psychology will be especially useful for students planning a career in research, which can involve studying a wide variety of subjects including but not limited to dementia, drug abuse, mental illnesses, and quantitative analysis.

The best way for a student to determine which degree to select is to meet with a Psychology advisor. Students will be advised when choosing to pursue a B.A. or B.S. degree in Psychology. When choosing a degree, students will be asked about what they are most interested in. For example, if the student shows interest in science and math, they will most likely complete the B.S. in Psychology. On the other hand, if a student enjoys learning about people and cultures, they will probably want to pursue the B.A. in Psychology.

Many students will likely ask which is better for jobs and graduate school. The answer depends on how well the student does in each of the areas. Some students may believe that the B.S. is the only way to graduate school, but low grades in those courses may jeopardize their chances for admission. Students will also be advised to consider what courses are recommended by the graduate program they are seeking. If graduate programs require a strong natural science background, i.e., behavioral neuroscience, behavioral pharmacology, cognition, etc., students will probably pursue courses offered in the B.S degree.

Note that all introductory PSY courses, i.e., 200 level and below, listed in the UHM catalog and taken at the UH Community Colleges have met articulation agreements and are transferrable to UHM.

Current Pre-major Degree Requirements

PSY 100, PSY 212, and PSY 225 or SOCS 225 with minimum grade of C (not C-) to declare their major in psychology.

Current B.A. degree requirements (minimum 36 credits, 15 earned at UHM)

For the B.A. degree, an overall minimum 2.5 GPA in all attempted PSY courses at time of declaration of major and 2.0 GPA at the time of graduation.

B.A. Psychology Elective courses

In addition to PSY 212 (3 credits) and PSY 225 or SOCS 225 (3 credits), students must complete:

- One course from three of the four areas (9 credits):
 - 1) Experimental (PSY X2X), e.g., PSY 220, PSY 322, PSY 324
 - 2) Psychobiology (PSY X3X), e.g., PSY 230, PSY 331, PSY 333
 - 3) Developmental (PSY X4X), e.g., PSY 240, PSY 341, PSY 342
 - 4) Social or Personality (PSY X5X or PSY X6X) e.g., PSY 250, PSY 260, PSY 352
- 15 credits at the upper division level (300 level and above)
- 3 credits in the advanced seminar series (PSY 4X9) excluding PSY 499

Credit restrictions for major

- Maximum of 9 credits in PSY 499 courses
 - Maximum of 3 credits in PSY 499 can apply towards 300+ requirements
 - Maximum of 15 credits in PSY 407, 408, 499
-

Proposed B.S. degree requirements (minimum 42 credits, 21 earned at UHM)

For the B.S. degree, an overall minimum 2.5 GPA in all attempted PSY courses at time of declaration of major and 2.5 GPA at the time of graduation. The 2.5 exit GPA represents enhanced undergraduate achievement associated with training for a research-oriented career. For the B.S. degree, both the entry and exit 2.5 GPA was approved by Reed Daesenbrock, VCAA. Furthermore, in discussion with the VCAA, B.S. students who do not meet the 2.5 PSY GPA will be allowed to graduate with a PSY B.A. degree upon meeting the minimum 2.0 GPA.

B.S. Psychology Elective courses and credit restrictions

In addition to completing all B.A. electives and credit restrictions, B.S. students must complete one year of Biology* and 18 credits at the 300 and above level, including:

- one additional PSY 4X9 advanced focus (W, O, etc.) seminar (3 credits)
- two semesters of directed research PSY 499 (6 credits).

One additional 3-credit course in Statistics, e.g., PSY 419 Psychometrics: Advanced Topics, PSY 610 Introduction to Quantitative Methods or PSY 611 Design and Analysis of Psychological Experiments is highly recommended in their senior year.

*Biol 171/171L (4 credits) and either Biol 172/172L (4 credits) or PSY 331 or PSY 333 (3 credits)

It should be noted the B.S. authorization to plan proposal was submitted in 2010 to Alan Teramura, Interim Dean of Natural Sciences and Christopher Womersley, the Chair of Biology/Zoology. Dr. Womersley indicated that Psychology students will be able to enroll in the Biology courses to fulfill their B.S. degree requirements. More recently, the current Dean of Natural Sciences, Willam Ditto, approved the B.S. degree requirements in Psychology for the B.S. Proposal (see Memo in Appendix 1).

To summarize, the B.A. and B.S. majors will overlap in certain fundamental and basic knowledge bases, but they will differ in their focus or the extent to which certain areas of psychology and related disciplines such as the natural sciences (see Appendix 2 & 3) are studied. An important consideration for students is to determine what courses best prepares them for their career goals. The instructional courses and research training objectives that a B.A. or B.S. student will gain overlap to the extent of the experiences they seek at UHM.

4. Student Demand

A survey was completed by undergraduates who declared their major in Psychology after attending one of the major meetings and from declared PSY majors on our listserve. The survey was taken to assess the students' interest in considering a B.S. degree in Psychology (Table 1) and/or obtaining an advanced degree from a graduate or professional school (Table 2). Nearly 19% were very interested in the B.S. degree in Psychology and a surprisingly high percentage (73.7%) of majors expressed interests in pursuing an advanced degree after graduation. Particular interest was shown in enrolling in a Master's or Doctoral degree program in Psychology (41.5%).

It should be further emphasized that 61% of UHM benchmark institutions offer B.A. and B.S. degrees in psychology (Table 3). In contrast, 28% of the benchmark universities offer only the Psychology B.A. degree. Benchmark institutions offer the research-oriented B.S. degree in Psychology to students considering advanced degrees offer at research intensive academic institutions or at professional schools. The B.S. degree at these institutions often includes additional courses in advanced psychology seminars and lectures as well as research. In addition, students are exposed to courses in the natural sciences. The proposed B.S. degree in Psychology at UHM will be expected to provide students with a more challenging undergraduate curriculum that prepares them for entering an advanced degree program.

Table 1. This table represents data obtained from students declaring their major in psychology and from current declared Psychology majors who responded to the questionnaire as to their interest in a B.S. degree in Psychology

Response	Frequency	Percent
Not interested	52	23.4
Neutral	59	26.6
Somewhat interested	38	17.1
Very interested	42	18.9
No response	31	14.0
Total	222	100.0

Table 2. Frequency and percent of incoming Psychology majors and declared Psychology majors interested in pursuing an advanced degree after graduation.

Psychology students interested in advanced degree	Frequency	Percent
MA Psychology	55	24.8
PhD Psychology	37	16.7
Grad degree	39	17.6
JD	10	4.5
MD	18	8.1
Not interested	63	28.3
Total	222	100.0

Table 3. Undergraduate degrees in Psychology offered at the 18 University of Hawaii at Manoa Benchmark Institutions.

Institution	Psychology Undergraduate Degrees
Indiana Univ. at Bloomington	B.A. & B.S.
Michigan State University	B.A. & B.S.
State University of New York at Buffalo	B.A.
University of Arizona	B.A. & B.S.
University of California – Berkeley	B.A.
University of California – Davis	B.A. & B.S.
University of California – Los Angeles	B.A. & B.S.
University of Colorado – Boulder	B.A.
University of Florida	B.S.
University of Illinois at Urbana-Champaign	B.S.
University of Iowa	B.A. & B.S.
University of Maryland – College Park	B.A. & B.S.
University of Michigan – Ann Arbor	B.A. & B.S.
University of Minnesota – Twin Cities	B.A. & B.S.
University of Missouri - Columbia	B.A.
University of Oregon	B.A. & B.S.
University of Washington	B.A. & B.S.
University of Wisconsin	B.A.

Source: Benchmark Group Listing - UH, Office of Planning and Policy, August 1994.

In summary, offering the B.S. degree in Psychology at UHM should place our Department within the ranks of many of our Benchmark Institutions. On the basis of our survey data showing that some of our incoming majors expressed interest in a B.S. degree in Psychology, students selecting the B.S. degree will now be exposed to formal training in advanced psychological science and natural science courses in preparation for an advanced degree. Thus, although B.S. students may also find employment immediately after graduating from UHM (see Appendix 4), we expect the majority of B.S. students will pursue careers that require an advanced research degree, e.g., Ph.D. in Psychology.

5. Resource Requirements

Faculty (existing and new FTEs)

The Psychology Department currently consists of 20 full-time faculty members with major research programs throughout the different fields of psychology. The current faculty teaching and research workload offers all the required courses to graduate with a B.S. degree in Psychology.

Library resources (including an evaluation of current resources and an estimate of the cost of additional resources required)

The library offers a range of resources, i.e., journals, books, online information, already available to Psychology undergraduates for obtaining their undergraduate degree.

Physical resources (space, equipment, etc.)

Psychology faculty with active research programs will provide existing resources to mentor the research training of B.S. students. Resources in their laboratories include computers, specialized data collection and testing equipment that students will use to conduct research under the direction of faculty. No additional expensive equipment and testing space will be required for the B.S. student to conduct research.

Other resources required (staff, graduate assistantships, etc.)

A GA who is already available to advise our B.A. students in the Undergraduate Advising Office will also advise our psychology undergraduates pursuing the B.S. degree.

To summarize, no additional resources are required to establish a B.S. degree in Psychology at UHM.

6. Five-Year Business Plan (Cost and Revenues Template, pg. 14)

Annual costs to implement the program

The B.S. degree in Psychology will not require additional faculty, personnel, library, or physical resources. Existing courses and Psychology faculty workload and resources for the Psy B.A. degree at UHM will be used. In addition, a GA who advises our B.A. Psy undergraduates will also serve to advise B.S. students. Thus, the Program Costs or expenses indicated in the Mini Cost Revenue Template only reflect the projected existing duties of our current faculty and GA advisor and not additional personnel.

Projected enrollment and estimated tuition revenue

In the 2007-2008 and 2008-2009 academic years, we enrolled 106 and 134 new psychology majors, respectively. Although we do not expect a major increase in undergraduates majoring in Psychology, a proportion of total PSY majors (approximately 15% of PSY majors) is estimated to pursue the B.S. psychology degree. Therefore, the 15 projected enrolled students are based on the conservative estimate of 100 declared PSY majors on a yearly basis.

How will the program be funded?

As noted previously, the new Psychology B.S. degree will use existing teaching and research resources and not require additional funding. For example, the Program Faculty cost in FY2012 - 2013 shows 3 courses (15 projected B.S. students, see line 9 in Academic Cost and Revenue Template, out of estimated 350 total students enrolled in the three courses] taught by three PSY faculty, which is .05 FTE/faculty teaching load per faculty at an estimated \$85K annual salary ($0.5 \times \$85,000 = \$4,259$, see lines 13 and 14). Because the faculty will teach these courses for PSY B.A. students to meet their degree requirements, the costs do not reflect new instructional duties but a percent of their total course teaching duties that now include B.S. students. The other personnel costs (line 16) reflect the amount of time the Teaching Assistants for the lecture courses will spend on B.S. student work.

Does the current or proposed budget (Department/College/Campus) include funds or a request for funds for the proposed program? Please provide details.

Current allocation of funding for our B.A. program will be incorporated into the new B.S. degree.

Given a “flat budget” situation, how will the proposed program be funded?

The Psychology Department already offers an established B.A. degree. Because the B.S. degree will not require additional faculty or resources, a “flat budget” will not impact the new degree requirements.

It should be noted that the Instruction Cost with Fringe per SSH for the B.S. in Psychology (line 44) is less than the comparable program costs (line 45) in Biology. However, the program costs in Biology represent a composite of both B.A. and B.S. programs.

7. Impact on Current Courses and Programs

Our Psychology faculty regularly offer all the courses proposed for the B.S. degree. Of note, when the impact of B.S. students was discussed at our department meetings it was met with enthusiasm because the faculty welcomes interactions with students who wish to obtain an advanced degree after graduation.

Although our department will continue to offer the B.A. degree, it is possible that some B.A. students will transfer to the B.S. degree in Psychology. It is also possible, that B.S. students already majoring in the natural sciences may enroll in the Psychology B.S. program as a double major in College of Arts & Sciences. The B.S. degree requirements for students in either the natural sciences or social sciences are identical. Furthermore, as previously mentioned, any increase in enrollment numbers in the natural sciences was already discussed with the Interim and current Dean of Natural Sciences and Chair of Biology/Zoology and no major concerns were expressed.

8. Student Assessment

Student assessment will be conducted in several ways.

Anonymous entry and exit surveys are currently collected to assess the B.A. psychology students' perceptions of psychological thinking at the time of declaration of major and at the time of graduation (see Appendix 5 for our 2011 annual assessment). The survey questions assess the extent to which majoring in Psychology enhances the student's general knowledge of Psychology. The survey questions are based on the American Psychological Association Task Force goals (described on page 3) of what is expected from an undergraduate major in psychology. By using these assessment surveys, we can compare the survey scores of B.A. and B.S. students to determine whether the additional courses and research experiences in the B.S. program significantly enhances their undergraduate learning experience in psychology. The results will be evaluated by the Undergraduate Committee and the strengths and weaknesses of the B.A. and B.S. program will be discussed by the Psychology faculty for determining future plans.

We are also beginning to request post-graduation information on our majors to assess their current occupation and future outlook. We will inquire whether their undergraduate degree in psychology provided them with a foundation to meet their career goals. The post-graduation information will be useful in determining what changes are needed for the future of our psychology B.A. and B.S. programs.

In addition to assessing all B.A. and B.S. students with the above methods, B.S. students will be required to write a paper discussing the research they are conducting in

their final semester. The paper represents a capstone of their research training that involves a discussion of the scientific method of investigation and hypothesis testing including the development of theoretical and practical skills in the design and execution of their experiments.

Appendix 1



UNIVERSITY
of HAWAII
MĀNOA

Colleges of Arts and Sciences
College of Natural Sciences
Office of the Dean

MEMORANDUM

February 2, 2012

TO: Lorey K. Takahashi
Professor of Psychology
Psychology Undergraduate Chair &
Director, Psychology Honors Program

FROM: William L. Ditto *WLD*
Dean

SUBJECT: Psychology BS degree requirements

We have determined that the addition of 10-15 students seeking a BS degree in Psychology will not lead to excessive enrollments in BIOL 171/171L or in the Mathematics, Physics and Chemistry courses required for all BS students in the Colleges of Arts and Sciences.

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Appendix 2

Description of Bachelor of Science Degree in Psychology

A psychology major selecting the B.S. will enroll in the required Arts and Sciences B.S. curriculum courses. In addition, the B.S. psychology student will complete selected psychology upper level educational and training experiences in preparation for advanced career degree opportunities. The proposed B.S. curriculum will not require the development of new instructional courses in psychology. Rather, emphasis will be placed on existing Diversification – Biological Science (DB) and Diversification – Social Science (DS) courses.

Arts and Sciences Bachelor of Science Degree Requirements

Psychology B.S. students will be required to complete the Arts and Sciences Graduation requirements and Arts & Sciences B.S. Foundations and Diversification Program Requirements.

One of the following (these courses also satisfy the UHM General Education Core "FS" requirement):

BUS 250 (3 credits)
ICS 141 (3), 241 (3)
MATH 100 (3), 112 (3), 140 (3), 203 (3), 215 (4), 241 (4), 251A (4)
NREM 203 (3)
PHIL 110 (3), or 111 (3)
SOCS 150 (3)

Arts and Sciences Bachelor of Science Course Requirements (22 to 23 credits)

B.S. psychology students will complete the following science courses, which also fulfills the General Education Foundation Symbolic Reasoning (FS) and Diversification – Physical Science (DP) and Diversification-Laboratory (science) (DY) Program requirements.

MATH 215 (4 credits) and 216 (3) or 251A (4) and 252A (4) or 241 (4) and 242 (4)
CHEM 161/161L (4) and 162/162L (4) or 171/171L (5) or 181A/181L (5)
PHYS 151/151L (4) and 152/152L (4) or 170A/170L (5) and 272A/272L (4)

All entering students are strongly encouraged to complete the math placement exam at their earliest convenience.

Check the catalog for minimum grade required to complete course prerequisites.

Appendix 3

Example of a 4-year timetable to complete the B.S. degree in Psychology using the new projected minimum total of 120 credits. This timetable is flexible to allow part-time students to extend the completion of PSY courses (see Appendix 2 for required Arts and Sciences B.S. curriculum courses). A description of the psychology courses can be found in: <http://www.catalog.hawaii.edu/courses/departments/psy.htm>

Year 1 Fall

MATH 215 (4 credits; prerequisite - MATH 140)

CHEM 161/161L (4)

PSY 100 Introduction (3)

ENG 100 (3)

14 credits

Year 1 Spring

MATH 216 (3)

CHEM 161/162L (4)

PSY 212 Research Methods (3)

PSY elective (3)

FG elective (3)

16 credits

Year 2 Fall

PHYS 151/151L (4)

BIOL 171/171L (4)

SOCS 225/PSY 225 Statistics (3)

FG elective (e.g., History 151) (3)

Language I (3)

17 credits

Year 2 Spring

PHYS 152/152L (4)

PSY electives (6)

BIOL 172/172L (4) or PSY elective (i.e., PSY 230 Psychobiology) (3)

Language II (3)

16 or 17 credits

Year 3 Fall

PSY 331 (Behavioral Neuroscience) or 333 (Psychopharmacology) or PSY electives (minimum 6)

Language III (3)

Electives (minimum 6)

15 credits

Year 3 Spring

PSY 4X9 Advanced topics (3)

PSY elective (3)

Language IV (3)

DA or DL or DH electives (minimum 6)**15 credits**Year 4 Fall

PSY 4X9 Advanced topics (3)

PSY 499 Research (3)

PSY 419, 610, 611 or PSY elective (3)

Electives (6)**15 credits**Year 4 Spring

PSY 499 Research (3)

Electives (9 to 10)**12 or 13 credits**

Appendix 4

In 2000, 74,654 students in the United States graduated with a bachelor's degree in psychology. However, to our knowledge, no statistics are available on the specific job distribution of B.A. and B.S. majors immediately after graduation (see below). Nonetheless, it is possible that B.S. students, who acquired good research and writing skills, are good problem solvers and have well-developed, higher-level thinking ability were likely to obtain jobs that require analysis, synthesis, and evaluation of information in research and development, statistical, consulting, and computing work.

Where Psychology B.A. & B.S. Degree Majors are working

- 17% administrative and clerical
- 17% health or health-related services^a
- 14% sales and professional services^b
- 13% education and teaching^a
- 10% other services (trades, hotel and restaurant^c, law enforcement, military)
- 8% research and development
- 5% reporting statistical work, consulting, computing
- 16% other

(Data from American Psychological Association)

On the basis of the State of Hawaii Employment Projections for Major Industries and Occupations 2008 – 2018 psychology undergraduates seeking general social science related jobs may see an increase of 8.2%. Jobs related to health and education services^a, sales and professional services^b, and hotel and restaurant services^c are projected to 15.8%, 6.9%, and 4.3%, respectively.

Psychology Related Positions

- Preschool teacher/Child Care Worker
- Correctional Officer
- Counselor*
- Human Resource Workers
- Human Service Workers and assistants
- Occupational therapy Assistant*
- Occupational Therapist*
- Recreational Therapist*
- Social Worker*

* Often require certificate, licensure, or credentialing depending on state regulations

Appendix 5

Annual Assessment Report for Psychology Undergraduate Academic Programs

Reports due October 14, 2011

If you need help completing the report, contact the Assessment Office, 956-4283 or 956-6669 or airo@hawaii.edu.

1. Below are the program student learning outcomes submitted last year.

The Board of Educational Affairs of the American Psychological Association has identified 10 major learning goals for an undergraduate program in psychology, along with specific learning outcomes associated with each goal. Our Psychology Department has adopted these goals and has started developing an assessment plan based upon them.

The goals and their accompanying learning objectives are as follows:

- 1) Theory and Content of Psychology: a) describing and applying psychology's concepts, language and theories; b) explaining its major perspectives; c) demonstrating understanding of its breadth and depth
- 2) Research Methods in Psychology: a) differentiating research methods; b) evaluating aptness of research conclusions; c) designing and conducting basic studies; d) generalizing research conclusions appropriately
- 3) Critical Thinking Skills in Psychology: a) using and engaging in critical thinking; b) using reasoning in arguments and persuasion; c) approaching problems with sophistication
- 4) Application of Psychology: a) identifying psychology's major applications; b) articulating how it can be used toward social understanding and public policy; c) recognizing the ethical complexities of applying psychology
- 5) Values in Psychology: a) understanding the need for ethical behavior; b) tolerance of ambiguity; c) demonstration of skepticism and intellectual curiosity; d) attunement to scientific evidence; e) civic responsibility; f) respect for human diversity
- 6) Information and Technological Literacy: a) demonstrating competent, ethical and responsible use of information in academic work; b) applying software in research reports; c) mastering such computer basics as Internet navigation and spreadsheet generation
- 7) Communication Skills: a) demonstrating effective writing, interpersonal and oral communication skills; b) showing quantitative literacy; c) collaborating effectively with others

8) Sociocultural and International Awareness: a) showing sensitivity to and respect for diversity; b) being able to consider and explain the role of cultural, racial, ethnic and economic factors, and of privilege and discrimination, in people's behaviors

9) Personal Development: a) the ability to apply psychology to personal and professional development; b) to self-regulate and display personal integrity

10) Career Planning and Development: a) applying psychology principles to career decision-making; b) aiming for feasible career paths; c) identifying realistic graduate-education pathways; d) taking practical career steps; e) valuing life-long learning and professional development

2. As of last year, your program's SLOs were published as follows. Please update as needed.

☒ Course Syllabi. URL, if available online: _____

All instructors are required to include the specific SLO in their course syllabus.

3. Below is the link to your program's curriculum map (if submitted in 2009). If it has changed or if we do not have your program's curriculum map, please upload it as a PDF.

Curriculum map: A graphical illustration of the relationship between a program's courses/requirements and the program's student learning outcomes. Usually presented as a matrix/table.

Each undergraduate course varies in the number of SLOs that are taught. However, at the time of graduation with a Psychology B.A. degree, our undergraduates will have been exposed to all the SLOs indicated on the course syllabus and webpage.

4. As of last year, the percentage of courses that have course SLOs explicitly stated on the syllabus, a website, or other publicly available document was as follows. Please update as needed.

☒ 100%

☐ 81-99%

☐ 51-80%

☐ 1-50%

☐ 0%

☐ Not applicable—program does not offer courses (e.g., academic advising).

To make the annual reports meaningful and useful, please base your responses to questions 5-13 on assessment activities that took place between June 1, 2010 and September 30, 2011.

5. State the assessment question(s) and/or goals of the assessment activity. Include the SLOs that were targeted, if applicable.

What did the program want to find out?

See Question #10.

6. State the type(s) of evidence gathered

To assess the student learning outcome or answer the assessment question, what evidence was collected?

- 1) Syllabi are being collected for each course, accompanied by a statement from the instructor regarding the specific outcomes expected from that course and the method to determine if the outcome is being obtained (i.e., what course-embedded assessment tools are being employed).
- 2) Student course evaluations (eCAFÉ) are especially used in providing information on: 1) course effectiveness in meeting learning objectives; 2) knowledge and critical thinking skills obtained from the course; and 3) understanding critical theoretical course concepts. In addition, graduate student lecturers are required to conduct eCAFÉ for their courses and the eCAFÉ is evaluated by the undergraduate chair and discussed with their faculty mentor for future course improvements.

7. Who interpreted or analyzed the evidence that was collected?

Check all that apply:

- ☐ Course instructor(s)
- ☐ Faculty committee
- ☐ Ad hoc faculty group
- ☐ Department chairperson
- ☐ Persons or organization outside the university
- ☐ Faculty advisor
- ☐ Advisors (student support services)
- ☐ Students (graduate or undergraduate)
- ☐ Dean/Director
- ☒ OTHER: Undergraduate advisors and Undergraduate Chair

8. How did they evaluate, analyze, or interpret the evidence?

What method was used to evaluate, analyze, or interpret the evidence?

Check all that apply:

- ☐ Used a rubric or scoring guide
- ☐ Scored exams/tests/quizzes
- ☐ Used professional judgment (no rubric or scoring guide used)
- ☒ Compiled survey results
- ☐ Used qualitative methods on interview, focus group, open-ended response data

- [] External organization/person analyzed data (e.g., external organization administered and scored the nursing licensing exam)
- [] OTHER:

9. State how many persons submitted evidence that was evaluated

See surveys.

10. Summarize the actual results

An entry and exit survey is collected to assess the students' perceptions of Psychological thinking prior to declaration of major and the extent to which Psychological knowledge have been enhanced upon graduation. An example of our most recent survey is indicated below.

**Outcome Data From Entry and Exit
Surveys, 2010-2011**

Date: Fall 2010-Spring 2011

**University of Hawaii at Manoa Undergraduate Psychology
Entrance Survey (176 respondents)**

- 1) I currently feel knowledgeable about psychological concepts, theoretical perspectives, research findings, or historical trends.
M= 3.5 Sd=.9

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 2) I have a background in basic research methods, including research design, data analysis, and interpretation
M=3.3 Sd=.96

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 3) I am able to use critical and creative thinking skills in solving problems.
M=3.85 Sd=.8

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 4) I understand how psychological concepts can be used in everyday life and organization.

M=3.8 Sd=.8

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 5) I currently feel comfortable with my communication skills including writing, interpersonal and oral skills, showing quantitative literacy and collaborating with others.

M=3.5 Sd=.94

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

Please indicate the number of psychology courses you have already taken: **M=4.55**

Date Fall 2010-Spring 2011

**University of Hawaii at Manoa Undergraduate Psychology Exit
Survey (upon graduation) (60 respondents)**

- 1) As a result of majoring in Psychology, I feel more knowledgeable in psychological concepts, theoretical perspectives, research findings, or historical trends.

M=4.5 Sd=.7

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 2) I have a better understanding of basic research methods, including research design, data analysis, and interpretation

M=4.3 Sd=.80

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 3) I am better able to use critical and creative thinking skills in solving problems.

M=4.26 Sd=.86

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 4) I understand how psychological concepts can be used in everyday life and organization, as well as the ethical complexities involved in applying psychology to social situations.

M=4.40 Sd=.70

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 5) I understand the values and need for ethical behavior, tolerance of ambiguity, scientific practice, and intellectual skepticism as well as the civic responsibility of respect for human diversity.

M=4.48, Sd=.65

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 6) I learned to use technology such as computers for purposes relating to the field of psychology, such as in researching topics on the internet and using software for statistical analyses.

M=3.8 Sd=1.17

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 7) I developed effective communication skills including writing, interpersonal and oral skills, showing quantitative literacy and collaborating with others.

M=4.11 Sd=.92

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 8) I learned to recognize and understand sociocultural and international diversity and how factors such as cultural, racial, ethnic and economic factors may have significant ramifications regarding the behavior of individuals.

M=4.51 Sd=.7

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

- 9) I benefited from studying psychology with regards to developing an understanding of mental processes, applying effective strategies for self management, including self-regulation, and demonstrations of integrity.

M=4.55 Sd=.64

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

10) I feel capable of applying the skills, values and information I received as a psychology major in my future career.

M=4.44 Sd=.74

1	2	3	4	5
Strongly Disagree		Agree		Strongly agree

Please estimate the number of psychology courses that you have taken at the Manoa campus: **M=9.96**

Independent sample t-tests between corresponding entrance and exit responses obtained Fall 2010 – Spring 2011

Item comparisons	1-1	2-2	3-3	4-4	5-7
Df	233	233	233	233	233
T	7.65	6.7	2.97	3.408	2.192
p-values	0.001	0.001	.003	.001	.02

11. Use of results/program modifications:

State how the program used the results

--or--

Explain planned use of results

Please be specific.

Instructors are responsible for developing and revising their courses. The Undergraduate Chair oversees the training of graduate student lecturers and offers recommendations to the instructor to improve the teaching when required. New course proposals are discussed at the Undergraduate Studies Committee and recommendations consistent with the SLO's are forwarded to the Faculty for approval. The SLOs are also distributed to faculty and lecturers and discussed at faculty meetings.

Data collected has led to our modification of our research and statistics courses. Prospective students are now required to successfully complete both courses prior to declaring their major in psychology. We have also removed lecturers, who have not met our expectations for SLOs, from our teaching pool. In addition, prerequisites of many upper level courses were modified, based on feedback from instructors about how well students were prepared to meet the SLOs of the course.

We are also requiring our instructors to indicate in their eCAFÉ evaluations a few

questions that are specifically related to our entry and exit surveys (e.g., see 1.3 above). By including SLO that emphasize key issues in our surveys, improvement will occur in the undergraduate perception of important psychological issues.

12. Beyond the results, were there additional conclusions or discoveries? This can include insights about assessment procedures, teaching and learning, program aspects and so on.

The statistical analysis of the survey questions provides insights into the strengths and weakness of our psychology courses. For example, survey questions 1 and 2 evaluate student knowledge of psychological concepts and methods, which in the last few years our majors strongly feel they have acquired at the time of graduation. For the second year in a row, question 3, which concerns critical thinking issues in Psychology showed a significant improvement among graduating seniors. In addition, for the first time questions 4 and 5(7), which assess applied psychology and communication skills, improved significantly among graduating seniors. This overall improvement in understanding psychological concepts, methods, critical thinking, applied psychology, and communication skills may be due to the recent incorporation of pre-major requirements, i.e., introduction to statistics and psychological methods courses that facilitate learning advanced issues in upper division psychological courses.

13. Other important information