University of Hawai'i
Code Request Form for Academic Programs

REPLACE PROGRAM CODE

CLEAR FORM

Form #CR-AP2
Modified June 2017

Date: October 10, 2023

REQUESTOR CONTACT INFORMATION

Name	Pheng Xiong	Campus	Mānoa, UH
Title	University Registrar	Email	pxiong@hawaii.edu
Office/Dept	Office of the Registrar	Phone	808.956.5322

NEW PROGRAM CODE TO CREATE

Institution	MAN - UH Manoa	Campus	MAN - UH Manoa
Level	GR - Graduate	Effective Term	Fall 2022

	Code (Max. Characters)		Description	Check if requesting new code:
College	(2)	50	Graduate Division	☐ See Banner form STVCOLL
Department	(4)	PSY	Psychology	☐ See Banner form STVDEPT
Degree/Certificate	(6)	PHD	Doctor of Philosophy	☐ See Banner form STVDEGC
Major	(4)	PSTM	Psychology	☒ See Banner form STVMAJR
Concentration	(4)			☐ See Banner form STVMAJR
Minor	(4)			☐ See Banner form STVMAJR

If a similar major/concentration code exists in Banner, please list the code:

Justification to warrant a new major/concentration code similar to an existing major/concentration code:

Is this major/concentration code being used the same way at the other UH campuses? ☐ Yes ☒ No

Should this program be available for applicants to select as their planned course of study on the online application? *If yes, student may select the code as their only program of study.* ☒ Yes ☐ No

RULES PERTAINING TO FINANCIAL AID AND 150% DIRECT SUBSIDIZED LOAN LIMIT LEGISLATION

Is 50% or greater of the classes in this program offered at a location other than the Home Campus? ☐ Yes ☒ No

Is this program/major/certificate financial aid eligible? ☒ Yes ☐ No

Does this certificate qualify as a Gainful Employment Program (Title IV-eligible certificate program)? ☐ Yes ☐ No

See http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html

Program Length
(In academic years; decimals are acceptable.) The length of the program should match what is published by the campus in any online and/or written publication. 6

Special Program Designations ☐ A ☐ B ☐ N ☐ P ☐ T ☐ U
See Special Program Designations Code Definitions on IRAO Program Code Request webpage

Required Terms of Enrollment ☒ Fall ☒ Spring ☐ Summer ☐ Extended

IRAO USE ONLY: DATE RECEIVED

University of Hawai'i
Code Request Form for Academic Program Codes

REPLACE PROGRAM CODE

EXISTING PROGRAM CODE TO REPLACE

Program Code	PSY-PHD	Program Description	Psychology-PHD
Institution	UH Manoa	Campus	UH Manoa
College	50	Department	Psychology
Level	Graduate		

Are current students "grandfathered" under the program code? ☒ Yes ☐ No

Should the old program code be available for use in Banner? ☐ Yes ☒ No

Effective Fall 2024 **, old program code will no longer be available to admit or recruit students.**

Term (ie. Fall 2014)

This will turn off the online application, recruitment (effects Banner forms SRASUMI and SRAQUIK) and admissions (effects Banner forms SAADCRV, SAAADMS, SAASUMI, SAAQUIK, and SAAQUAN) Banner modules.

Effective **, old program code will no longer be available to award degree to students.**

Term (ie. Fall 2014)

This will turn off the general student (effects Banner form SGASTDN) and academic history (effects Banner form SHADEGR) Banner modules.

ADDITIONAL COMMENTS

CIP Code Change Request from 42.0101 (Psychology, General) to 42.2799 (Research and Experimental Psychology, Other), as approved.

ATTACHMENTS

BOR Approved: Associate, Bachelor and Graduate Degrees, and sole credential certificates

☒ BOR Meeting Minutes & Supporting Documents OR Memo with President's Approval, with cc to Vice President for Academic Planning and Policy.

☐ Curriculum

Chancellor Approved: Certificates (eg. Certificate of Achievements, Certificates of Competence, Subject Certificates, Academic Subject Certificates) & Associate in Technical Studies (ATS) Degree

☐ Memo from Chancellor to Vice President for Academic Planning and Policy regarding program action.

☐ Curriculum

VERIFICATIONS

By signing below, I verify that I have reviewed and confirm the above information that is pertinent to my position.

Registrar (Print Name)	**Financial Aid Officer** (Print Name)	**For Community Colleges, verification of consultation with OVPCC Academic Affairs:**
Pheng Xiong	Jodie Kuba	Tammi Oyadomari-Chun
Digitally signed by Pheng Xiong, M.Ed. Date: 2023.10.10 15:56:36 -10'00'	Digitally signed by Jodie Kuba Date: 2023.10.11 12:43:31 -10'00'	
Signature Date	Signature Date	Signature Date

Form modified: June 2017

UNIVERSITY of HAWAI'I® MĀNOA

Department of Psychology

April 13, 2022

MEMORANDUM

TO: David Lassner
President

VIA: Michael Bruno
Provost

VIA: Laura E. Lyons
Interim Vice Provost for Academic Excellence

VIA: Krystyna Aune
Dean, Graduate Division

Krystyna S. Aune Digitally signed by Krystyna S. Aune Date: 2022.04.18 21:34:13 -10'00'

VIA: Denise Konan
Dean, College of Social Sciences

Denise Konan Digitally signed by Denise Konan Date: 2022.04.13 17:51:52 -10'00'

FROM: Charlene Baker,
Chair, Department of Psychology

SUBJECT: Request for approval of new CIP code for BA, BS, MA, and PhD in Psychology

APPROVED: BS, MA and PhD in psychology
DISAPPROVED: BA in pscyhology
(see signature page)

ACTION REQUESTED:
We respectfully request that the Classification of Instructional Programs (CIP) code for the Psychology Department (BA, BS, MA, and PhD Degrees) be changed from 42.0101 (Psychology, General) to 42.2799 (Research and Experimental Psychology, Other).

RECOMMENDED EFFECTIVE DATE:
Fall 2022.

ADDITIONAL COST:
None.

PURPOSE:
We request the change in the CIP code, which classifies our programs as STEM, because:

1) The new code better represents our undergraduate degrees and graduate programs which are heavily based on training in empirical and quantitative methods and the generation of knowledge about human behavior.

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2) The requested CIP code change will benefit our students and make us more competitive in recruiting and retaining students.

BACKGROUND:
Psychology is a STEM field

We are a department that trains scientists. Our curricula are rooted in the scientific method where theory-driven experimentation is employed to understand human behavior. We use the same methods as the rest of the sciences.

As noted in the American Psychological Association's 2010 report on the status of psychology's recognition as a STEM field:

> *Psychology is a core STEM discipline because of its direct scientific and technological innovations, as well as its indirect contributions to education and learning in science and technology*.

The achievements of psychological science include:

- Improving public health with basic and applied research leading to effective smoking cessation interventions, techniques for improving medication adherence and other positive health behaviors, and activities to maintain cognitive vitality in aging.
- Introducing new statistical techniques that are widely used in other fields that contribute to applied mathematics and advance our understanding of complex social behavior and decision-making.
- Neuroscience findings on the neural mechanisms of human cognition related to attention, learning, memory, decision-making, language, social cognition, and emotions are fundamental to all work influenced by human cognitive processing. These finding direct work designing new technologies, including airplane cockpit displays, air traffic control digital communications systems, the computer mouse and other computer interfaces, anesthesiology displays, and redesigning everyday tools, such as the toothbrush, for greater effectiveness.
- Developing educational techniques that facilitate students' mathematical and scientific learning and that help people address everyday problems by enhancing analytical skills, scientific literacy, and problem-solving strategies.
- Technological solutions to large-scale problems routinely fail when they do not consider how people interact and behave in different contexts. Even when projects do not fail outright, quality, productivity, and efficiency can often be substantially improved by considering human capacities and behavior.
- Research on attitude change provided the basis for campaigns promoting recycling behavior and other individual behaviors that affect climate change, political messaging, advertising, school success, jury selection, factors that affect jury decision making, among many, many examples (see APA press releases of societal problems being addressed today here , here, and here). One area that is seeing greater push is identifying and dismantling systemic racism (for a summary of work done to date and plans to move forward here).

Recognizing this, the National Science Foundation (NSF) definition of STEM fields includes mathematics, natural sciences, engineering, computer and information sciences, and the social and behavioral sciences – psychology, economics, sociology, and political science (National Science Foundation, Division of Science Resources Statistics, 2009), and is one of the fields that the National Center for Science and Engineering Statistics monitors for STEM workforce development today.

In fact, it appears that psychology has a "truth-in-advertising" problem as students who opt to take psychology may not be aware they are opting for STEM training when they take psychology (see https://www.apa.org/monitor/2015/03/advertising). To address this gap, National Standards for High School Psychology Curricula (2022) have been developed to prepare students for careers in psychology (https://www.apa.org/education-career/k12/psychology-curricula.pdf)

Given these issues, the American Psychological Association has been advocating the use of CIP code 42.2799 since 2014 (http://www.apa.org/monitor/2014/07-08/sd.aspx). Reflecting this, in a recent survey we completed of chairs of psychology departments around the country[1], 77% had made the move to a STEM CIP code or were in the process of considering this move. Of those who have completed the move to using a STEM CIP code, 81% are using a single CIP code for all programs, 42.2799 (Research and Experimental Psychology, Other), rather than program-specific CIP codes as it reflects the increasingly interdisciplinary nature of our field and the recognition that traditional sub-disciplines created artificial boundaries in knowledge generation and training. In fact, the Department of Psychology reorganized in 2018 to reflect the interdisciplinary nature of our field such that the only CIP code that captures the programs in the Department is 42.2799.

The Department of Psychology's Undergraduate and Graduate Program Descriptions and Curricula

A concern often raised is that any program with a qualifying STEM CIP code - either for STEM OPT Extension or grant eligibility - must demonstrate that 50% or more of the program content and associated learning outcomes are grounded in science, technology, engineering, and mathematics. To, this point, 100% of the content of our graduate and undergraduate curricula are constructed on the science of cognitive processing and individual and group behavior.

Graduate programs

Our current graduate program areas are:

1. **Cognition, Neuroscience, and Social Program –** Focuses on cells to society to provide an understanding of basic mechanisms of the brain and behavior within social contexts.

[1] Respondents included Pennsylvania State University, University of Notre Dame, University of Georgia, Temple University, University of Pittsburgh, University of Pennsylvania, University of Nevada, Reno, Trinity University, University of Utah, Georgia State University, Indiana University, Drexel University, University of Arizona, University of Maryland-Baltimore County.

2. **Community, Cultural, and Developmental Program –** Focuses on understanding the development of children and adults within their social and cultural contexts, including the advancement of theory and social action.
3. **Clinical Studies Program –** Focuses on integrating science into behavioral healthcare practice, administration, and policymaking to enhance psychological knowledge, health, and well-being.

Many of our graduate students go on to lead their own research labs. Many go on to do research in more applied settings, academic medical centers, and public policy think tanks. Still others apply their knowledge in settings like high tech (Facebook, Apple, etc.), social welfare and public health programming in Hawai'i and around the nation, healthcare, etc. in a manner that is consistent with engineering which is focused on the application of physics, chemistry, etc. to address real world problems. Given that science underlies all education and practice in psychology, it results in doctoral professionals who are adept at understanding and utilizing science to address real world problems and make complex decisions to improve the communities we serve.

Below is a breakdown of the curricula of the graduate program areas in the Psychology Department:

Cognition, Neuroscience, and Social (CNS) Program

This area consists of three long established STEM fields with long histories of interdisciplinary overlap. The curriculum for this program allows for specialization in any of the subdisciplines encompassed as well as requires cross disciplinary training. The class requirements for the PhD program are:

- PSY 600: Methodologic Foundations of Psychology
- PSY 610: Introduction to Regression
- + 1 Advanced Research or Statistical Methods elective
- 2 Foundational courses in the CNS subdisciplines in the program
- 1 Foundational course from any of the CNS, CCD, or CSP programs
- 2 Advanced Seminars in CNS specialization track
    - Examples of advanced seminars include:
        - Attention and Perception
        - Advanced topics in Psychobiology
        - Multiculturalism & Diversity
        - Publishing & Responsible Research
        - Social Cognition
        - Stereotyping, Prejudice & Intergroup Relations
        - Social perception & Intergroup relations
- 1 Advanced Seminar from any of the CNS, CCD, or CSP programs
- Integrative CNS seminar (e.g., PSY 721, 731, 751)
- Additional Research and Thesis and Dissertation credits (PSY 729, 739, 759, 700, 800)

By the nature of the disciplines in this area, all of the content of these classes are STEM content. They focus on the use of scientific methods to examine and predict human behavior. Additional requirements in the program are focused on the generation and dissemination of knowledge in each subdiscipline and include a requirement to submit at least one manuscript for publication by the end of their 3rd year, comprehensive exam requirements focused on either testing knowledge in these areas, grant writing or publication writing, as well as masters and dissertation research.

Community, Cultural, and Developmental (CCD) Program

Again, this area consists of three long established STEM fields with long histories of interdisciplinary overlap. As in the CNS program, the CCD curriculum allows for specialization in any of the subdisciplines encompassed as well as requires cross disciplinary training. The class requirements for the PhD program are:

- PSY 600: Methodologic Foundations of Psychology
- PSY 610: Introduction to Regression
- + 1 Advanced Research or Statistical Methods elective
- 3 Foundational courses in the CCD subdisciplines in the program
- 1 Foundational course from CNS or CSP programs
- 2+ Advanced Seminars in CCD specialization track
    - Examples of advanced seminars include:
        - Advanced Quantitative Research Methods
        - Introduction to Qualitative Methods
        - Culture and Human Development
- Additional Dissertation, Research and Thesis credits (PSY 749, 789, 700, 800)

By the nature of the disciplines in this area, all of the content of these classes are STEM content. They focus on the use of the scientific methods to examine and predict human behavior. Additional requirements in the program are focused on the generation and dissemination of knowledge in each subdiscipline, comprehensive exam requirements focused on either testing knowledge in these areas or publication writing, as well as masters and dissertation research.

Clinical Psychology (Clinical Studies Program (CSP)

Clinical psychology began to move from psychoanalysis to build the scientific basis for clinical psychology in the 1950s, becoming more organized with the creation of the Society for a Science of Clinical Psychology in 1966, with results of this effort including the development of the "clinical scientist" model in the 1980s and the eventual establishment of the Academy of Psychological Clinical Science (APCS) in 1995 which has codified the model of a clinical science training program.

The CSP is a founding member program of the (APCS) with the clinical psychology PhD program at UH being built around APCS clinical science guidelines. With this, the Clinical Studies Program curriculum consists of (1) Methods & Research Core, (2) Domain Specific Knowledge requirements, and (3) the Clinical Core:

- Methods & Research Core is a large percentage of our curriculum which consists of 4 + required classes (12+ credits) in research and statistical methods:
    - PSY 675: Treatment Research
    - PSY 610: Introduction to Regression
    - PSY 613: Factor Analysis & Structural Equation Models or EDEP 625 Structural Equation Modeling
    - PSY 619: Multilevel Modeling or EDEP 612 Multilevel Modeling for Cross-Sectional and Longitudinal Data
    - In addition, our students often take additional advanced classes in data analysis, psychometrics, and research design.
    - Finally, students are required to complete a dissertation, thesis project, and a research-focused comprehensive exam portfolio and all the associated research credits (3 per semester).
    - In total, students complete 50+ credits out of the 105 on average to complete the CSP program in research and statistical methods classes, research practica, and their own research.

- Domain Specific Knowledge curriculum requirements are in areas of psychology traditionally recognized as STEM Psychology: Affective Sciences, Cognitive Neuroscience, Development Psychology, and Social Psychology (3-5 classes for an additional 12 STEM credits on average)

- In our Clinical Core classes (7+ classes = 21+ credits) the content of the syllabi and discussion are entirely based on the latest applied research findings on human behavior change and the application of empirically validated methods to individuals and populations - following closely the current definition of clinical science in the field. The associated practica and internship credits (14+ credits) are about the application of clinical science to treatment and assessment.

Note in terms of benchmarks

The CNS and CCD program areas have long been considered STEM fields and each of the individual components that make up these programs have had their own associated STEM CIP codes for decades. These programs are comparable to any of our STEM-designated peer institutions in terms of the content and scope of the curricula in these areas. As noted, the CSP is built around the Academy of Psychological Clinical Science guidelines while maintaining our American Psychological Association accreditation status. These two frameworks largely dictate the context, scope, and quality of our programming - and those of all the other clinical science programs around the country, making the CSP highly overlapping and likewise comparable to our peer institutions that have adopted the STEM CIP code for their departments.

Undergraduate program

The Psychology Department offers BA and BS degrees. Both degree programs offer a research-oriented program of study, including an in-depth exploration of psychological principles, basic

sciences, and sufficient background to enable outstanding students to qualify for graduate programs in a variety of fields (e.g., medical school, behavioral neuroscience, advanced psychology degrees in the social sciences, biomedical professions such as pharmacy, etc.). As detailed above, psychology is defined as the scientific study of the mind and behavior, and relies heavily on the scientific method to empirically address questions related to human behavior, ranging from the cell to society. Undergraduate students who major in Psychology are educated on research methodology, statistical analysis for both quantitative and qualitative data, and a variety of approaches to understand the physiological and neurological bases of human behavior (e.g., functional magnetic resonance imaging (fMRI), event related brain potentials, oculomotor tracking, etc.).

The undergraduate PSY degree requires a minimum of 36-37 credits of STEM-related courses in the psychological sciences (the BS degree requires a minimum of 43 credits due to additional courses in biology, as well as additional general education courses in chemistry, math, and physics). The PSY curriculum includes (additional BS requirements are listed):

Required Pre-Major Courses (9-10 Credits)

- PSY 100: Survey of Psychology
- PSY 212: Survey of Research Methods
- PSY 225: Statistical Techniques

  Given the STEM nature of the material these classes are designed to provide a foundation in psychological research and data methods that are required to understand the material in advanced classes in the major.

Biology Foundations (10-11 Credits) – BS program only

- BIOL 171/171L - Introduction to Biology/Lab I
- BIOL 172/172L - Introduction to Biology/Lab II
  - May be prerequisite to PSY 331 or 336 with instructor approval or PSY 230
- PSY 331: Behavioral Neuroscience or;
- PSY 336: Sensation and Perception

One course from 4 of 5 Psychology Foundation Areas (12 Credits – note, BS students take one course from 3 of 4 Foundation Areas (#1,3,4,5) as the Behavioral Neuroscience requirements are embedded in the Biology Foundations listed above for BS students)

1. Experimental (PSY X2X courses), e.g., PSY 322, 324, 325
2. Behavioral Neuroscience (PSY X3X courses), e.g., PSY 230, 331, 336
3. Developmental (PSY X4X courses), e.g., PSY 240, 341, 442
4. Social or Personality (PSY X5X / PSY X6X courses), e.g., PSY 250, 260, 352
5. Clinical or Community (PSY X7X / PSY X8X courses), e.g., PSY 270, 280, 371

One course in the Advanced Topics Series (3 Credits – BS students complete 2 Advanced Topics courses)

Psychology Electives (12 credits): BA students select PSY electives that do not fulfill the above requirements. BS students must take one upper-division PSY elective (3 Credits), and complete 6

research credits (PSY 499: Directed Reading or Research). BA students are encouraged to participate in PSY 499 courses, but it is not a requirement.

Additional BS required courses:

- Math 214, 215, or 241A
- Chemistry 161 & 161L (With lab)
- Calculus 1 & Calculus 2
- Physics 1 & Physics 2 (With lab)

While the following list is not exhaustive, listed below are descriptions of courses highlighting the STEM nature of psychology course in the Psychology undergraduate degree:

Survey of Psychology: An overview of the field: psychophysiology, perception, learning, cognition, stress, personality, social psychology. (PSY 100)

Survey of Research Methods: Survey of standard methods and related conceptual issues employed in psychological research. Both experimental and non-experimental methods will be reviewed. (PSY 212)

Introduction to Behavioral Psychology: Outline of basic learning principles. A general, unified approach to study of human personality and behavior. Based upon a learning conception; various areas of psychology and the other social sciences are treated. (PSY 220)

Statistical Techniques: Frequency distributions; graphic methods; central tendency; variability; correlation; reliability; tests of significance. (PSY 225)

Introduction to Psychobiology: Survey of study of behavior from a natural sciences viewpoint. Evolution, ethological analysis of behavior genetics, neural mechanisms, drugs and behavior, biological development. (PSY 230)

Developmental Psychology: Emotional, mental, physical, social development from infancy to adulthood; interests and abilities at different age levels. (PSY 240)

Social Psychology: Cognitive, behavioral, and emotional effects of people: interpersonal relations, attribution, attitudes, group behavior, stereotypes, social roles, aggression, helping, self-concept; applications. (PSY 250)

Community Psychology: Examination of human functioning in social and ecological context. Topics include stress, health, intergroup relations, culture, ethnicity, social competence, and community empowerment. (PSY 280)

Learning and Motivation: Theoretical interpretations; survey of major theorists and contemporary controversial issues; major influences in classical and instrumental conditioning. (PSY 322)

Psychology of Emotion: Survey of traditional views and leading theories, and research in related topics. (PSY 324)

Cognitive Psychology: Survey of cognitive processes involved in perception, attention, memory, language, problem-solving, reasoning, judgment, intelligence and consciousness, among others. (PSY 325)

Behavioral Neuroscience: Coverage of the relationship between the brain and body on learning and memory, stress, motivated and regulatory behavioral functions, and mental disorders. (PSY 331)

Pharmacology: Coverage of the principles of pharmacology in relation to the effects of drug actions on the brain and behavior. (PSY 333)
Sensation and Perception: In-depth coverage of the basic principles involved in sensing and perceiving our environment. (PSY 336)
Cross-cultural Psychology: Psychological theories and cultural systems; understanding of own and other cultures; psychological and cultural perception of social motivation; cultural similarities and differences in interpersonal relations. (PSY 351)
Abnormal Psychology: Nature and causes of psychological disorders. (PSY 371)
Psychometrics: Advanced Topics: In-depth coverage of some area of theory, research, or methodology relevant to individual differences, measurement, or aspects of psychometrics. (PSY 419)
Experimental Psychology: Advanced Topics: In-depth coverage of some area of theory and research, in cognitive psychology. (PSY 429)
Psychobiology: Advanced Topics: In-depth coverage of some area of theory and research in psychobiology, physiological psychology, or sensory processes. (PSY 439)
Health Psychology: Psychological principles for understanding and dealing with wellness and illness. Theories and research on stress-related disorders; prevention of stress through lifestyle and healthy behaviors. (PSY 476)
Directed Reading or Research (PSY 499)

Benefits for Student Recruitment and Retention

The requested CIP code change will likely result in attracting more international students to the program. Furthermore, with the STEM CIP code, international students will be able to apply for a 24-month extension of their postbaccalaureate or postdoctoral training (through the STEM OPT Extension program), will have a wider range of postbaccalaureate opportunities and postdoctoral fellowships available, and will have better professional development, and ultimately better job prospects. The University, Department, and the state of Hawaii will benefit by being able to recruit and maintain highly motivated and skilled students who have additional funding available only to undergraduate and graduate students from STEM programs.

In addition to benefiting our existing students, the requested CIP code change will clearly bolster our efforts at recruiting new students. As our peer institutions shift to STEM CIP codes, changing our programs' CIP code is critical to ensure we are competitive in recruiting stronger students at admissions, thereby ensuring that our Department remains viable and of the highest standing in the field.

The UK, Canada, Australia, Germany, and especially the US are the world leaders in our area. Students from around the world flock to these countries to receive training. Our program at UH has traditionally attracted significant interest from students in Asia in particular. The broadening of the postbaccalaureate and postdoctoral training opportunities for our graduates would ensure that we remain competitive in attracting these students.

ACTION RECOMMENDED:

We recommend that the Classification of Instructional Programs (CIP) code for the Psychology Department (BA, BS, MA, and PhD Degrees) be changed from 42.0101 (Psychology, General) to 42.2799 (Research and Experimental Psychology, Other).

BA - APPROVED / DISAPPROVED **BS** - APPROVED / DISAPPROVED

MA - APPROVED / DISAPPROVED **PhD** - APPROVED / DISAPPROVED

David Lassner
Digitally signed by David Lassner
Date: 2023.02.17 16:06:06 -10'00'

David Lassner
President

Date

cc:
April Goodwin, Director of Program Development and Review
Pheng Xiong, University Registrar