Report and Suggestions from IPEDS Technical Review Panel #56: CIP 2020: A Decennial Update to the Classification of Instructional Programs (CIP)

SUMMARY: The Technical Review Panel discussed proposed changes for the CIP 2020. The majority of changes include the addition of new six-digit CIP codes, which reflect availability of new instructional programs at IPEDS-reporting institutions that have emerged since the last CIP update in 2010. This summary provides feedback on whether the proposed new CIP codes should be added to CIP 2020. Comments from interested parties are due to Janice Kelly-Reid, IPEDS Project Director at RTI International, at ipedsTRPcomment@rti.org **by September 19, 2018.**

On June 26 and 27, 2018, RTI International, the contractor for the Integrated Postsecondary Education Data System (IPEDS) web-based data collection system, convened a meeting of the IPEDS Technical Review Panel (TRP) in Washington, DC. IPEDS TRP meetings are conducted by RTI to solicit expert discussion and suggestions on a broad range of issues related to postsecondary education and the IPEDS collection. Each TRP is designed to allow the public to advise and work with RTI to improve IPEDS data collection, products, data quality, and user-friendliness. The TRP does not report to or advise the U.S. Department of Education.

RTI's specific purpose for TRP 56 was to discuss proposed changes to the CIP.[1] These proposed changes reflect the new availability of instructional programs at IPEDS-reporting institutions, since the last CIP update in 2010.[2] The panel consisted of 56 individuals representing institutions, researchers, state governments, the federal government, higher education associations, and other experts.

Background

The CIP is not intended to be a regulatory device. Its purpose is to facilitate the organization, collection, reporting, and analyzing of fields of study and program completions. The CIP contains titles and descriptions of instructional programs, primarily at the postsecondary level, with each field of study having an identifying number—referred to as its CIP code. CIP codes reflect current educational offerings and are not a prescriptive list of officially recognized or permitted programs. CIP codes, for the most part, are not intended to correspond exclusively to any specific degree or program level. In most cases, any given instructional program may be offered at various award levels. Through the IPEDS Completions survey component, these programs result in a reportable completion of diplomas, degrees, certificates, and other awards.

The CIP was originally developed in 1980 by the National Center for Education Statistics (NCES) in the U.S. Department of Education, with revisions occurring in 1985, 1990, 2000, and 2010. The CIP is organized on three levels: the 2-digit series represents general groupings of related programs; the 4-digit series represents intermediate groupings of programs that have comparable content and objectives; the 6-digit series, also referred to as 6-digit CIP codes, represents specific instructional programs. The current CIP (CIP 2010) contains 47 2-digit series, 388 4-digit series, and 1,720 6-digit codes.

The next revision, the 2020 edition of the CIP (CIP 2020), is the fifth revision of the CIP and will present an updated taxonomy of instructional program classifications and descriptions, as well as a CIP search tool on the IPEDS website. The process to develop CIP 2020 started the summer of 2017 through extensive background research and analysis to identify new instructional programs for possible inclusion in the CIP. The first phase of background research was guided by analyzing IPEDS Completions survey data. NCES reviewed programs reported under the "other" (99) category—those for which there was not an applicable

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[1] The CIP is a taxonomic coding scheme of instructional programs. The CIP is the accepted federal government statistical standard on instructional program classifications and is used in a variety of education information surveys and databases.

[2] CIP 2010 is available from the "Resources Page" of the CIP website (http://nces.ed.gov/ipeds/cipcode/resources.aspx?y=55.)

6-digit CIP code that adequately describes the instructional program. The purpose of this effort was to get a better idea of the programs that institutions are currently offering that may not be specifically represented in the 2010 version of the CIP. In the winter of 2017-18, NCES also surveyed IPEDS Keyholders and coordinators to solicit their suggestions for new emerging programs of study.[3] NCES combined the responses from the survey of IPEDS keyholders and coordinators with the results of the summer 2017 background research to develop a proposed list of programs (with draft titles and descriptions) for which there was sufficient evidence to be considered for addition to the CIP 2020. (Appendix A). There were a total of 209 new instructional programs for consideration.

RTI convened this TRP to obtain feedback on the proposed instructional programs and whether they should be added to the CIP 2020. In order to process the more than 200 proposed changes, the TRP was divided into three groups organized by subject area and discussed the number of new CIP codes (in parenthesis) as follows:

- Group 1: Science, Technology, Engineering, and Mathematics (75);
- Group 2: Arts, Humanities and Social Sciences, and Interdisciplinary Studies (58); and
- Group 3: Career Preparation, Vocational Training, and Personal Growth and Enrichment (76).

Each group reviewed the proposed instructional programs for their respective areas and provided feedback on preliminary titles, descriptions, and placement within the CIP.

The TRP was not tasked with suggesting changes to existing CIP codes nor with suggesting additional codes for consideration. In reviewing the proposed list of additions to the CIP, the TRP justified the addition or exclusion of a proposed program and on several occasions suggested existing CIP codes could be modified rather than adding a new program of a similar definition. These instances arose during the natural course of discussion around the proposed additions and were not specifically intended as evaluations of the existing CIP codes. The TRP did not introduce any new 2-digit series, nor did it undertake any major reorganization of existing 2-digit series.

TRP Feedback on Proposed List of New Instructional Programs for CIP 2020

Tables 1–3 summarize feedback from the TRP on the new instructional programs proposed for addition to the CIP 2020, organized by subject area and 2-digit series. The proposed CIP title as presented to the TRP and the panel's suggestion to "Add" or "Do not add"[4] are included for each proposed new program. Also included where applicable and necessary are brief summaries of the panel's justifications, suggested revisions to titles and descriptions, suggestions for appropriate series placement, and other relevant considerations. The TRP suggested all program descriptions begin with the standard phrase "A program that…"

Table 1.   Feedback on Proposed New Programs in the Areas of Science, Technology, Engineering, and Mathematics

Proposed Program	TRP Comments and Suggestions
01) AGRICULTURE, AGRICULTURE OPERATIONS, AND RELATED SCIENCES.	
A. Brewing Science	Add; modify description to differentiate from proposed program 01G (Zymology/Fermentation Science) below
B. Farrier Science	Add
C. Floral Design and Marketing	Add; revise title to "Floral Design and Planning" or "Floral Design and Costing"
D. Irrigation Management Technology/Technician	Add

E. Public Horticulture	Add; modify description (including the instructional content of the program) to differentiate from proposed program 01F (Urban and Community Horticulture) below
F. Urban and Community Horticulture	Add; revise title to "Urban Setting and Community Horticulture"
G. Zymology/Fermentation Science	Add; modify description to differentiate from proposed program 01A (Brewing Science) above
03) NATURAL RESOURCES AND CONSERVATION.	
A. Bioenergy	Add; modify description to clarify whether this refers to management or physics/chemistry
B. Energy and Environmental Policy	Add; nest under a 4-digit series as suggested in proposed program 03D (Environmental Policy and Decision Making) below
C. Environmental Economics and Policy	Add; nest under a 4-digit series as suggested in proposed program 03D (Environmental Policy and Decision Making) below
D. Environmental Policy and Decision Making	Add as a 4-digit series and consider revising title to "Environmental Policy"; add a general 6-digit CIP to go with proposed programs 03B (Energy and Environmental Policy) and 03C (Environmental Economics and Policy) above; modify description to differentiate from proposed program 03B (Energy and Environmental Policy) above
11) COMPUTER AND INFORMATION SCIENCES AND SUPPORT SERVICES.	
A. Cloud Computing	Add; consider adding as a 4-digit series
B. Computer Game Programming	Add; cross-reference with existing CIP 50.0411 (Game and Interactive Media Design)
C. Computer Programming, Specific Platforms	Add
D. Human-Centered Design	Add; revise title to "Human-Centered Technology Design" to emphasize optimization for humans
14) ENGINEERING.	
A. Astronautical Engineering	Add
B. Electrical and Computer Engineering	Add; modify description to clarify that the focus is on computers; remove "secure" from description
C. Energy Systems Engineering	Add; remove "sustainable" from description
D. Power Engineering	Add; consider revising title to "Power Plant Engineering" if appropriate
15) ENGINEERING TECHNOLOGIES AND ENGINEERING-RELATED FIELDS.	
A. 3-D Modeling and Design Technology	Add; consider including "Technician" in title
B. Audio Engineering Technology	Add; consider including "Technician" in title
C. Composite Materials Technology/Technician	Add
D. Marine Engineering Technology/Technician	Add
* E. Maritime Technology	Do not add; update existing series 47.06 (Vehicle Maintenance and Repair Technologies) to incorporate elements of proposed description
F. Mechatronics, Robotics, and Automation Engineering Technology/Technician	Add; consider adding "autonomous" or "drones" to the inclusions if appropriate
G. Motorsports Engineering Technology	Add; consider including "Technician" in title
H. Power Plant Technology/Technician	Add
I. Process Safety Engineering	Add; revise title to "Process Safety Technology/Technician"; modify description to differentiate from existing CIP 15.0703 (Industrial Safety Technology/Technician)
J. Solar Photovoltaic Installation	Add; consider revising title to "Solar Photovoltaic Technology/Technician"; consider adding a 4-digit category for engineering of energy systems with subcategories such as solar, wind, hydro, geothermal, other; consider distinguishing installer from technician with separate categories
K. Wooden Boatbuilding	Add

26) BIOLOGICAL AND BIOMEDICAL SCIENCES.	
A. Epidemiology and Biostatistics	Add as subcategory under existing CIP 26.1309 (Epidemiology)
B. Infectious Disease and Global Health	Add; modify description to include "biological" and clarify reference to "physical"
C. Wildlife and Conservation Biology	Add; place after existing CIP 26.0709 (Wildlife Biology); modify description to be more specific about wildlife (animals)
27) MATHEMATICS AND STATISTICS.	
A. Applied Statistics	Add; remove "binomial distribution" from description; consider updating existing CIP 27.0301 (Applied Mathematics, General) by removing reference to statistics to better differentiate the two
29) MILITARY TECHNOLOGIES AND APPLIED SCIENCES.	
A. Military Technology and Applied Sciences Management	Add
30) MULTI/INTERDISCIPLINARY STUDIES.	
A. Anthrozoology	Add
B. Climate Science	Add
C. Data Analytics	Add as a 4-digit series
D. Data Science	Add as a 4-digit series
E. Design Studies Design for Human Health	Add; revise title to "Design for Human Health"; remove "outcomes" from description
F. Earth Systems Science	Add
G. Economics and Computer Science	Add
* H. Economics and Mathematics	Do not add; redundant with proposed program 30J (Mathematical Economics) below
I. Linguistics and Computer Science	Add
J. Mathematical Economics	Add; modify description to clarify the type of analysis
K. Mathematics and Atmospheric/Oceanic Sciences	Add
L. Science and Technology	Add; revise title to "Science and Technology Management"; remove "and physics" from description
40) PHYSICAL SCIENCES.	
A. Environmental Geosciences	Add; place in series 30 (Multi/Interdisciplinary Studies) or modify description to exclude law-related topics
B. Geobiology	Add; place in series 30 (Multi/Interdisciplinary Studies)
C. Physics and Astronomy	Add; review for redundancy with existing CIP 40.0202 (Astrophysics)
51) HEALTH PROFESSIONS AND RELATED PROGRAMS.	
A. Cancer Data Management	Add as a 4-digit series; revise title to "Disease Data Management"; add "Cancer Data Management" and "Other" as 6-digit CIPs
* B. Christian Counseling	Do not add; redundant with existing CIP 39.0701 (Pastoral Studies/Counseling)
C. Clinical Leadership and Management for Healthcare Professionals	Add; consider striking "and Management" from title; consider further research on specific programs to determine the most appropriate title
D. Clinical and Translational Science	Add; consider broadening description to include epidemiology and add "scientific or clinical or translational"; consider updating existing CIP 51.1401 (Medical Scientist) with new title "Medical Science/Scientist"
E. Forensic Nursing	Add
F. Health Professions Education	Add
G. Horticulture Therapy	Add
H. Hospice and Palliative Care	Add
I. Hyperbaric Medicine Technology/Technician	Add
J. Infant/Toddler Mental Health	Add; revise title to "Infant/Toddler Mental Health Services"
K. Intraoperative Neuromonitoring Technology/Technician	Add; modify description to include "under supervision of a physician" to be consistent with other Technology/Technician programs in series

L. Medical Family Therapy	Add
M. Medical Humanities	Add
N. Orthopedic Technology/Technician	Add
O. Pain Medicine	Add
P. Patient Safety and Healthcare Quality	Add
Q. Play Therapist	Add; revise title to "Play Therapy" or "Play Therapy/Therapist"; review description for consistency with other therapy program descriptions
R. Pre-Art Therapy	Add; review description language for consistency with other "pre" programs
S. Pre-Physician Assistant	Add; review description language for consistency with other "pre" programs
T. Psychiatric Rehabilitation and Psychology	Add; review title and consider "Psychiatric Rehabilitation and Psychological Rehabilitation" if appropriate
U. Public Health Genetics	Add
V. Rehabilitation, General	Add; modify description to ensure language is general and not overly focused on disabilities
W. Temporomandibular Disorders and Orofacial Pain	Add
X. Trauma Counseling	Add
Y. Tropical Medicine	Add

* TRP suggested not adding the proposed program to the CIP 2020.

Table 2.   Feedback on Proposed New Programs in the Areas of Arts, Humanities and Social Sciences, and Interdisciplinary Studies

Proposed Program	TRP Comments and Suggestions
05) AREA, ETHNIC, CULTURAL, GENDER, AND GROUP STUDIES.	
* A. Ancient Mediterranean Studies	Do not add; redundant with existing CIP 30.2202 (Classical, Ancient Mediterranean and Near Eastern Studies and Archaeology); update 30.2202 to incorporate elements of proposed description
B. Appalachian Studies	Add; consider modifying description for existing CIP 05.0122 (Regional Studies [U.S., Canadian, Foreign] to exclude Appalachia
C. Arctic Studies	Add; exclude "interdisciplinary" from description to avoid confusion with series 30 (Multi/Interdisciplinary Studies); review description language for consistency with other area studies
D. Comparative Studies	Add; place in series 30 (Multi/Interdisciplinary Studies) near existing CIP 30.2601 (Cultural Studies/Critical Theory and Analysis) rather than series 05 (Area, Ethnic, Cultural, Gender, and Group Studies)
* E. India/South Asian Studies	Do not add; redundant with existing CIP 05.0112 (South Asian Studies)
09) COMMUNICATION, JOURNALISM, AND RELATED PROGRAMS.	
* A. Business Journalism	Do not add; incorporate elements of description into proposed program 09B (Business and Economic Journalism) below
B. Business and Economic Journalism	Add; modify description to incorporate elements from proposed program 09A (Business Journalism) above
* C. Communication Management	Do not add; incorporate elements of description into proposed program 09H (Strategic Communications) below
D. Cultural Reporting and Criticism	Add; revise title to "Cultural Journalism"
* E. Information Communication Technology	Do not add; consider whether need exists; if so, place in series 11 (Computer and Information Sciences and Support Services) with significant revisions to description
* F. Media Productions	Do not add; consider updating existing CIP 09.0702 (Digital Communication and Media/Multimedia) to include production
G. Science, Health, and Environmental Reporting	Add; revise title to "Science, Health, or Environmental Journalism"; modify description to reference "issues" rather than "disputes"

H. Strategic Communications	Add; modify description to incorporate elements of proposed program 09C (Communication Management) above; revise title to "Communication Management and Strategic Communications"

13) EDUCATION.

	A. Communication Arts/Literature Teacher Education	Add; revise title to "Communication Arts and Literature Teacher Education"; modify description to replace "secondary students" with "students at various education levels"
*	B. Community College Leadership	Do not add; redundant with existing CIP 13.0407 (Community College Education); consider revising 13.0407 title to "Community College Administration"
	C. Education Entrepreneurship	Add; consider its own 4-digit series; consider revising title to "Education Innovation"
*	D. Effective Teaching	Do not add; redundant with existing CIP 13.0301 (Curriculum and Instruction)
*	E. Innovation and Entrepreneurship Education	Do not add; consider incorporating elements of proposed description into existing CIP 13.1303 (Business Teacher Education) and revising title
	F. Institutional Research	Add; consider revising title to "Educational Institutional Research" or "Education Institutional Research"; modify description to indicate applied nature and to ensure distinction from existing CIP 13.0601 (Educational Evaluation and Research), which is more conceptual; add language to specify "to prepare someone to be an institutional researcher"
	G. International School Leadership	Add; revise title to "International School Administration/Leadership"
	H. International Teaching and Learning	Add; modify description to remove the specificity to The International Baccalaureate (IB), using "such as IB"; replace "to serve" with "to teach"
*	I. Nutrition Education	Do not add; review for possible placement in series 51 (Health Professions and Related Programs)
	J. Online Educator/Online Teaching	Add; remove "or hybrid" from description; consider updating existing CIP 13.0501 (Educational/Instructional Technology) to reflect the current state of the field and to avoid redundancy
*	K. School Business Management	Do not add; consider providing as an example in existing CIP 13.0401 (Educational Leadership and Administration, General)
	L. Science, Technology, Engineering, and Math (STEM) Education	Add; place in existing series 13.12 (Teacher Education and Professional Development, Specific Levels and Methods); revise title to "Science, Technology, Engineering, and Mathematics Educational Methods and Practices"; consider including guidance to clarify that teachers of specific subjects should not be placed here
*	M. Special Education Collaborative Teacher/Teaching	Do not add; redundant with existing CIP 13.1001 (Special Education and Teaching, General); consider updating 13.1001 to reflect current state of the field including collaboration and team approach
	N. University and College Teaching	Add; place in existing series 13.12 (Teacher Education and Professional Development, Specific Levels and Methods)

16) FOREIGN LANGUAGES, LITERATURES, AND LINGUISTICS.

	A. Armenian Language and Literature	Add; modify description using existing CIP 16.1301 (Celtic Languages, Literatures, and Linguistics) as a template

23) ENGLISH LANGUAGE AND LITERATURE/LETTERS.

*	A. English as a Second/Foreign Language	Do not add; redundant with existing CIP 13.1401 (Teaching English as a Second or Foreign Language/ESL Language Instructor); consider updating 13.1401 to incorporate elements of proposed description

30) MULTI/INTERDISCIPLINARY STUDIES.

*	A. Cinema and Media Studies	Do not add; redundant with existing CIP 50.0601 (Film/Cinema/Video Studies); consider updating 50.0601 to include "media"
	B. Cultural Studies and Comparative Literature	Add; add "includes instruction" to description

*	C. Early Childhood and Family Studies	Do not add; redundant with existing CIP 19.0706 (Child Development); consider incorporating elements of proposed description into 19.0706; cross-reference with existing CIP 13.1210 (Early Childhood Education and Teaching)
	D. Foreign Language and International Economics	Add; revise title to "Economics and Foreign Language"; modify description to address insufficient detail
	X. Geoarchaeology	Add *NOTE: This program is labeled as 30 X due to its original misplacement in the printed meeting materials. It is placed alphabetically in the correct group of 30 Multi/Interdisciplinary Studies.*
*	E. Globalization Studies	Do not add; redundant with existing CIP 30.2001 (International/Global Studies); consider incorporating proposed description into 30.2001 and add "globalization" and "international" to the new description
	F. History and French	Add; merge with proposed program 30G (History and Literature) below to create "History and Language/Literature"; ensure description reflects broadening of topic
	G. History and Literature	Add; merge with proposed program 30F (History and French) above to create "History and Language/Literature"; ensure description reflects broadening of topic
	H. History and Political Science	Add
*	I. Humanitarian Studies	Do not add; interdisciplinary nature is unclear; consider reevaluating for inclusion in series 44 (Public Administration and Social Services Professions) or further research into the discipline(s) which this crosses
	J. Linguistics and Anthropology	Add
	K. Philosophy, Politics, and Economics	Add
*	L. Preservation Studies	Do not add; redundant with existing CIP 30.1202 (Cultural Resource Management and Policy Analysis); consider updating 30.1202 to further encompass preservation
	M. Textual Studies	Add
38) PHILOSOPHY AND RELIGIOUS STUDIES.		
	A. Catholic Studies	Add
	B. Mormon Studies	Add
*	C. Sacred Theology	Do not add; redundant with existing CIP 39.0601 (Theology/Theological Studies)
42) PSYCHOLOGY.		
	A. Performance and Sport Psychology	Add; place in existing series 42.28 (Clinical, Counseling and Applied Psychology)
	B. Somatic Psychology	Add
	C. Transpersonal/Spiritual Psychology	Add
45) SOCIAL SCIENCES.		
	A. Anthropology and Geography	Add; place in existing series 45.02 (Anthropology)
*	B. Applied Demography	Do not add; update existing CIP 45.0501 (Demography and Population Studies) with applications and related language
	C. Geography/Environmental Studies	Add; place in series 30 (Multi/Interdisciplinary Studies)
	D. Survey Research/Methodology	Add; consider modifying description to emphasize survey focus and reduce overlap with existing CIP 45.0102 (Research Methodology and Quantitative Methods)
*	E. Transportation and Infrastructure Planning/Studies	Do not add; redundant with existing CIP 52.0209 (Transportation/Mobility Management); consider further research into update of 52.0209
	F. Urban and Regional Studies	Add; place in existing series 45.12 (Urban Studies/Affairs); revise title to "Urban and Regional Development Studies" to differentiate from series 05 (Area, Ethnic, Cultural, Gender, and Group Studies)
50) VISUAL AND PERFORMING ARTS.		

A. Metal Arts	Add; consider revising existing CIP 50.0713 (Metal and Jewelry Arts) to limit it to jewelry only and clearly differentiate metal arts from jewelry arts
B. Sound Arts	Add; place in existing series 50.09 (Music) or as its own 4-digit series
C. Theater and Dance	Add; place in existing series 50.05 (Drama/Theatre Arts and Stagecraft) or as its own 4-digit series; remove "cross-disciplinary" from description

*TRP suggested not adding the proposed program to the CIP 2020.

Table 3. **Feedback on Proposed New Programs in the Areas of Career Preparation, Vocational Training, and Personal Growth and Enrichment**

Proposed Program	TRP Comments and Suggestions
04) ARCHITECTURE AND RELATED SERVICES.	
* A. Advanced Architectural Design	Do not add; redundant with existing CIP 04.0201 (Architecture); consider including advanced degrees for architectural design as an example under 04.0201
B. Architectural Conservation	Add; modify description to differentiate from existing CIP 30.1201 (Historic Preservation and Conservation); consider updating 30.1201 and cross-referencing
C. Architectural Design	Add; remove "for existing architects and related professionals" from description and modify to differentiate from existing CIP 04.0902 (Architectural and Building Sciences/Technology)
D. Architectural Studies	Add; revise title to "Pre-Architectural Studies"; modify description to differentiate from existing CIP 04.0201 (Architecture); add "Pre-Architecture" as an example
E. Healthcare Design and Innovation	Add; revise title to "Healthcare Environment Design"; consider adding as a 4-digit series; consider whether existing CIP 04.0401 (Environmental Design/Architecture) is also necessary
F. Sustainable Design	Add
12) PERSONAL AND CULINARY SERVICES.	
A. Casino Dealing	Add; place in series 31 (Parks, Recreation, Leisure, and Fitness Studies); consider adding a new 4-digit series titled "Casino/Gaming Services" with this nested below
19) FAMILY AND CONSUMER SCIENCES/HUMAN SCIENCES.	
A. Adolescent Development	Add; consider revising existing CIP 42.2703 (Developmental and Child Psychology) to exclude "child" and rename "Developmental Psychology"
B. Human Service Studies	Add; consider further research to determine the extent of distinction between this, existing CIP 44.0000 (Human Services, General), and existing CIP 19.0707 (Family and Community Services); consider including guidance on how to classify
C. Parent Education	Add; revise title to "Parent Education Service"
* D. Substance Abuse / Addiction Studies	Do not add; consider incorporating elements of proposed description into existing CIP 34.0104 (Addiction Prevention and Treatment)
22) LEGAL PROFESSIONS AND STUDIES.	
A. Agriculture Law	Add
B. Arts and Entertainment Law	Add
C. Compliance Law	Add; incorporate elements from proposed program 22D (Corporate Compliance) below
* D. Corporate Compliance	Do not add; incorporate elements of description into proposed program 22C (Compliance Law) above
E. Court Interpreter	Add; place in existing series 22.03 (Legal Support Services)
F. Criminal Law and Procedure	Add; modify description to include "trial procedure" and add detail
G. Family/Child/Elder Law	Add
H. Human Resources Law	Add

I. Juridical Science	Add; consider revising description for existing CIP 22.0201 (Advanced Legal Research/Studies, General) to exclude Doctor of Juridical Science (J.S.D.)
J. Juris Master (J.M.) Degree	Do not add; CIP codes are not intended to correspond exclusively to a specific program level (the program title specifies this is a master's degree program)
K. Law and Entrepreneurship	Add; revise title to "Entrepreneurship Law"
* L. Law and Public Policy	Do not add; dual degree program based on two independent courses of study (law and public policy); this should be reported under the appropriate program category
M. Legal Advocacy	Add; consider further research on specific institution programs to determine whether this program is primarily post-baccalaureate or applicable at all levels
N. Patent Law	Add
O. Real Estate and Land Development Law	Add
P. Transportation Law	Add
Q. Tribal/Indigenous Law	Add
30) MULTI/INTERDISCIPLINARY STUDIES.	
A. Financial Analytics	Add; place in series 30 (Multi/Interdisciplinary Studies) as a 6-digit CIP under the newly proposed 4-digit Data Analytics series
* B. Integrated Design	Do not add; description is too generic
C. Rehabilitation and Disability Studies	Add; modify description to clarify intent is to teach individuals to work with people with disabilities to help them get employment, live independently, and achieve personal goals
* D. Science and Business	Do not add; broad title does not match with overly specific coursework in description
E. Thanatology	Add; modify description to include "interdisciplinary" and specify which disciplines it crosses
32) BASIC SKILLS AND DEVELOPMENTAL/REMEDIAL EDUCATION.	
NOTE: CIP codes in this series are not valid for IPEDS reporting.	
A. Accent Reduction/Modification	Add
B. Test and Exam Preparation	Add; revise title to "General Exam Preparation and Test-Taking Skills"; modify description to clarify this is distinct from a licensure exam or the GED.
* C. Workforce Training/Development	Do not add; consider updating existing CIP 32.0111 (Workforce Development and Training) with this proposed description
34) HEALTH-RELATED KNOWLEDGE AND SKILLS.	
NOTE: CIP codes in this series are not valid for IPEDS reporting.	
A. Emergency Preparedness	Add; place in series 33 (Citizenship Activities)
B. Meditation/Mind-Body Wellness	Add; place in existing series 34.01 (Health-Related Knowledge and Skills)
36) LEISURE AND RECREATIONAL ACTIVITIES.	
NOTE: CIP codes in this series are not valid for IPEDS reporting.	
A. Beekeeping	Add
B. Firearms Training/Safety	Add
C. Floral Design/Arrangement	Add; modify description to remove "retail shop operations" which would suggest inclusion in existing CIP 01.0608 (Floriculture/Floristry Operations and Management)
D. Master Gardener/Gardening	Add
E. Motorcycle Rider Education	Add; consider adding 36.02 as a new 4-digit series titled "Noncommercial Vehicle Operation" with this nested below
37) PERSONAL AWARENESS AND SELF-IMPROVEMENT.	
NOTE: CIP codes in this series are not valid for IPEDS reporting.	
A. Driver's Education	Add; consider adding 36.02 as new 4-digit series titled "Noncommercial Vehicle Operation" with this nested below

B. Investing/Wealth Management/Retirement Planning	Add; modify description to clarify that this refers to personal planning rather than a professional career
C. Life Coaching	Add; place in series 35 (Interpersonal and Social Skills)
D. Self-Defense	Add
39) THEOLOGY AND RELIGIOUS VOCATIONS.	
A. Canon Law	Add; consider modifying description to clarify this does not refer to administration of a church
B. Chaplain/Chaplaincy Studies	Add; place in existing series 39.07 (Pastoral Counseling and Specialized Ministries)
C. Church Planting	Add; place in existing series 39.03 (Missions/Missionary Studies and Missiology) as new CIP 39.0302; revise title of existing CIP 39.0301 (Missions/Missionary Studies and Missiology) to "Missions/Missionary Studies"
D. Contemplative Studies/Inquiry	Add; consider further research to determine choice of 4-digit/6-digit designation and appropriate placement in existing series 30 (Multi/Interdisciplinary Studies), 38 (Philosophy and Religious Studies), or 39 (Theology and Religious Vocations)
E. Worship Ministry	Add; consider revising title of existing series 39.05 (Religious/Sacred Music) to "Religious Music and Worship," then adding this as new CIP 39.0502
43) HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING AND RELATED PROTECTIVE SERVICES.	
A. Criminal Justice and Corrections, General	Add; instructional content follows broad program of study within the area described by existing series 43.01 (Criminal Justice and Corrections), but the existing 4-digit series is missing a "general" 6-digit CIP
B. Geospatial Intelligence	Add; revise title after further research and public comment; new title should reflect intent as a more specialized version of existing CIP 43.0118 (Law Enforcement Intelligence Analysis), which includes the underlying quantitative methods
C. Information Security and Cybersecurity Defense	Add; modify description to reflect policy component; revise title, possibly "Cybersecurity Defense Strategy/Policy"; encourage feedback in Federal Register Notice
44) PUBLIC ADMINISTRATION AND SOCIAL SERVICE PROFESSIONS.	
A. Forensic Social Work	Add; place in existing series 44.07 (Social Work)
B. Transportation Planning and Management	Add; revise title to "Transportation Administration and Management"; place in existing series 44.04 (Public Administration); remove "interdisciplinary" from description
46) CONSTRUCTION TRADES.	
* A. Heavy Equipment Operation	Do not add; redundant with existing CIP 49.0202 (Construction/Heavy Equipment/Earthmoving Equipment Operation); consider outreach and education to IPEDS keyholders to assist with choosing the appropriate CIP
49) TRANSPORTATION AND MATERIALS MOVING.	
A. Forklift Operator Certification	Add; revise title to "Forklift Operation"; consider similar change to existing CIP 49.0206 (Mobile Crane Operation/Operator), revising title to "Mobile Crane Operation"; consider adding cross-reference to series 46 (Construction Trades)
52) BUSINESS, MANAGEMENT, MARKETING, AND RELATED SUPPORT SERVICES.	
A. Brewery/Brewpub Operations/Management	Add; consider further research to determine appropriate placement
B. Business Analytics	Add; place in series 30 (Multi/Interdisciplinary Studies) as a 6-digit CIP under the newly proposed 4-digit "Data Analytics" series
C. Construction Project Management	Add; place as new CIP 52.2002 due to similarity with existing CIP 52.2001 (Construction Management); ensure differentiation between descriptions, noting the specific emphasis on project management
D. Executive/Career Coaching	Add

*	E. Finance and Risk Management	Do not add; redundant with proposed program 52N (Risk Management) below
	F. Financial Risk Management	Add
	G. Grantsmanship	Add
	H. Healthcare Innovation	Add; consider placing in series 30 (Multi/Interdisciplinary Studies)
*	I. Information Systems Auditing and Control	Do not add; redundant with existing CIP 11.1003 (Computer and Information Systems Security/Information Assurance); add as an example to the existing 11.1003 and add "audit" to the description
*	J. Nonprofit Leadership Studies	Do not add; redundant with existing CIP 52.0213 (Logistics, Materials, and Supply Chain Management); add as an example in 52.0213
	K. Public Works Management	Add; place in existing series 44.04 (Public Administration) as new CIP 44.0402
	L. Regulatory Science/Affairs	Add; place in series 51 (Health Professions and Related Programs)
	M. Research Administration	Add
	N. Risk Management	Add
	O. Social Entrepreneurship	Add; ensure distinction from existing series 44.02 (Community Organization and Advocacy)
	P. Social Media Management	Add; place in series 09 (Communication, Journalism, and Related Programs); modify description to add detail
	Q. Social Media Marketing	Add; modify description to add detail

*TRP suggested not adding the proposed program to the CIP 2020.

Additional Discussion on Series 30. MULTI/INTERDISCIPLINARY STUDIES

Panelists discussed reorganizing or restructuring the 2-digit series **30. Multi/Interdisciplinary Studies** to implement a more logical organization of the program classifications and accommodate new and emerging programs that include multiple areas of study. This series contains instructional programs that derive from two or more distinct programs to provide a cross-cutting focus on a subject concentration that is not subsumed under a single disciple or occupational field, meaning the program crosses two or more 2-digit CIP series.

Changes to the coding structure (e.g., reorganization across existing 2-digit series or introducing a new 2-digit series) would entail reorganizing the related 4-digit and 6-digit series, which means that institutions would need to update CIP code assignments for the affected series. In addition to IPEDS reporting, the CIP is used for other regulatory reporting and mandates, including National Student Loan Data Service System enrollment reporting, student loan origination and disbursement, and in disclosures as part of the Gainful Employment rule. Programmatic data (by CIP) are also used for state funding formulas and to assess program performance.

Because the impact of CIP on the postsecondary industry is vast and varied, panelists suggested a more comprehensive review of this topic, and, potentially, the need for structural changes (or the addition of a new 2-digit series) as part of the next decennial update of the CIP in 2030 (there was not enough time accomplish this review for the CIP 2020). Before undertaking a reorganization of an existing 2-digit series or introducing a new 2-digit series, it is important to determine how structural changes would affect federal compliance and research activities, funding, federal financial aid, and institutional operations. Panelists suggested further investigation of series 30 reorganization could be through the National Postsecondary Education Cooperative (NPEC).[5]

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[5] NPEC was established by NCES in 1995 as a voluntary organization that encompasses all sectors of the postsecondary education community including federal agencies, postsecondary institutions, associations, and other organizations with a major interest in postsecondary education data collection.

Next steps

Once the TRP summary comment period has closed, RTI will review the comments and outline recommendations for NCES based on the outcome of the TRP meeting and subsequent public comment period. NCES will review the recommendations and propose changes to the CIP accordingly. The revised CIP will then be submitted to the Office of Management and Budget (OMB) for their consideration and will appear in the Federal Register for approval using the regular clearance process, including 60- and 30-day public comment periods that will be announced in Federal Register Notices. It is estimated that CIP 2020 will be available by July 2019 along with an updated CIP website and CIP user tools. IPEDS institutions will be expected to use CIP 2020 starting with the 2020-21 IPEDS data collection through the Completions component. The one year between the release of CIP 2020 and its implementation is designed to allow time for institutions to update their reporting systems to reflect changes in the CIP codes.

Comments

RTI is committed to improving the quality and usefulness of IPEDS data as well as strategies that might be helpful in minimizing additional reporting burden. We encourage interested parties to send any comments or concerns about this topic to Janice Kelly-Reid, IPEDS Project Director, at **ipedsTRPcomment@rti.org** by **September 19, 2018.** In addition to general comments or concerns about this topic, RTI welcomes comments specifically addressing the title, description, and potential placement of proposed instructional programs for CIP 2020.

Appendix A. Proposed list of new CIP codes for TRP discussion

209 Proposed New Programs for CIP 2020 Consideration

Group 1: Areas of Science, Technology, Engineering, and Mathematics

01) AGRICULTURE, AGRICULTURE OPERATIONS, AND RELATED SCIENCES.

A. Brewing Science

A program that focuses on the business, science, and technology of brewing operations. Includes instruction in biology, biochemistry, brewing, entrepreneurship, fermentation, malting, marketing, microbiology, quality control, and sanitation.

B. Farrier Science

A program of study that prepares individuals to become a specialist in equine hoof care (farrier). Includes instruction in equine science, equine health and first aid, horse shoeing, corrective horse shoeing, gait analysis and metal forging techniques using gas or coal.

C. Floral Design and Marketing

A program that prepares individuals to design, distribute, market, purchase, and sell floricultural products. Includes instruction in floral design, inventory control, plant care, plant identification, and retail flower shop operations.

D. Irrigation Management Technology/Technician

A program that prepares individuals for employment in the field of agricultural technology and irrigation. Includes instruction in irrigation and drainage methodologies, pumping and delivery systems, system design and evaluation, and principles of installation and repair of irrigation systems.

E. Public Horticulture

A program of study that focuses on combining traditional horticulture and public outreach. Includes instruction in botany, soil science, plant science, agricultural economics, leadership, and business.

F. Urban and Community Horticulture

A program that focuses on principles and techniques for production of horticultural crops in an urban environment. Includes instruction in ecology, environmental sustainability, food production systems, and plant and soil sciences.

G. Zymology/Fermentation Science

A program that focuses on the business, science and technology of brewing and fermentation operations. Includes instruction in biology, biochemistry, brewing, entrepreneurship, fermentation, marketing, microbiology, quality control, and sanitation.

03) NATURAL RESOURCES AND CONSERVATION.

A. Bioenergy

A program of study that focuses on the environmental and economic impact of using plants and microbes for the production of bio-based fuels such as ethanol and biodiesel. Includes instruction in biochemical engineering, bioprocessing, bioseparations, conversion, feedstock, economics, environmental sustainability, hydrology, and natural resource management.

B. Energy and Environmental Policy

A program of study that focuses on the systematic analysis of public policy issues related to climate change, energy policy, environmental economics, global sustainability, and security. Includes instruction in climate change, clean energy technologies, environmental policy, environmental law, environmental economics, food security, fossil fuels, renewable and sustainable energy sources, and water issues.

C. Environmental Economics and Policy

A program that focuses on how economic theory and tools can be applied to issues in agriculture, the environment, natural resources, energy, and economic development. Includes instruction in the American political system, econometrics, economic development, environmental economics, environmental philosophy, geographic information systems, geology, and natural resource economics and policy.

D. Environmental Policy and Decision Making

A program that prepares individuals to enter professional fields concerned with the sustainability of the human and natural environment. Includes instruction in natural resources, policy analysis, environmental economics, decision-making, governance systems, and renewable energies.

Appendix A. Proposed list of new CIP codes for TRP discussion

11) COMPUTER AND INFORMATION SCIENCES AND SUPPORT SERVICES.

A. Cloud Computing

A program that prepares individuals to design and implement enterprise software systems that rely on distributed computing and service-oriented architecture, including databases, web services, cloud computing, and mobile apps. Includes instruction in data management, distributed and cloud computing, enterprise software architecture, enterprise and cloud security, mobile systems and applications, server administration, and web development.

B. Computer Game Programming

A program that prepares individuals to apply the knowledge and skills of design and computer programming to the development of computer games. Includes training in character and story development, computer programming, computer graphics, game design, game physics, human-computer interaction, human-centered design, and usability.

C. Computer Programming, Specific Platforms

A program that prepares individuals to design, develop, and implement software-based solutions for specific business and consumer platforms including industrial, game, mobile, tactile, and web platforms. Includes instruction in computer programming, computer hardware, data structures, database theory, maintenance, operating systems, project management, software development, and systems analysis.

D. Human-Centered Design

A program that focuses on incorporating a human perspective into designing, researching, and creating technological interfaces. Includes instruction in design, human-computer interaction, learning, neuroscience, perception, product design, user-centered design, and usability.

14) ENGINEERING.

A. Astronautical Engineering

A program that prepares individuals to apply mathematical and scientific principles to the design, development, and operational evaluation of aircraft and space vehicles. Includes instruction in control systems, fluid dynamics, electrical circuits systems, orbital mechanics, propulsion, remote sensing, satellites, spacecraft centers, space craft systems engineering, and space exploration.

B. Electrical and Computer Engineering

A program that prepares individuals to apply mathematical and scientific principles to the design and development of secure computer systems. Includes instruction in computer architecture, cybersecurity, electronic circuits, electromagnetism, electronic materials and design, micro-fabrication methods and techniques, signal and image processing, and wireless communication networks.

C. Energy Systems Engineering

A program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of sustainable energy generation, storage, conversion, and distribution systems. Includes instruction in alternate/renewable energy systems, electrical power systems, and electrical system design.

D. Power Engineering

A program that prepares individuals to plan electrical systems and modify existing electrical systems that generate and use large amounts of electricity required for distribution networks that are economical, safe, and functional. Includes instruction in alternate/renewable energy systems; calculus; circuit analysis; electrical power systems and industry practices; electrical system design; microprocessor architecture; motor control systems; power electronics operation, planning and protection; programmable logic controllers; and project management.

15) ENGINEERING TECHNOLOGIES AND ENGINEERING-RELATED FIELDS.

A. 3-D Modeling and Design Technology

A program of study that prepares individuals to utilize three-dimensional (3-D) computer technology to create technical illustrations and models used in manufacturing, design, production, and construction. Includes instruction in 3-D computer aided design (CAD), 3-D printing, 3-D model design and construction, and 3-D scanning.

B. Audio Engineering Technology

A program of study that prepares individuals to apply mathematical and scientific principles to the mixing, recording, and production of music. Includes instruction in acoustics, audio mixing, audio production, audio recording, computer composition of music, music theory, digital devices, and sound technology.

C. Composite Materials Technology/Technician

A program of study that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in the development, manufacture, and use of composite materials in aircraft technology, automotive technology, boats, medical prostheses, and wind turbines. Includes instruction in computer aided design and drafting, composite materials and processes, composite maintenance, composite manufacturing, composite repair, material science, and mold manufacturing and production.

Appendix A. Proposed list of new CIP codes for TRP discussion

D. Marine Engineering Technology/Technician

A program of study that focuses on the fundamentals of ship board mechanical and electrical engineering combined with practical training in the operation and maintenance of marine engines including gas, diesel, and steam engines. Includes instruction in automation, diesel-powered systems, electrical circuits and systems, engine performance, hydraulics, manufacturing, motor-powered systems, refrigeration and air-conditioning, steam-powered systems, and welding.

E. Maritime Technology

A program that prepares individuals to install, service, and repair the mechanical, electrical, electronic, and hydraulic systems used in commercial and recreational boating. Includes instruction in applied mechanics, computer-aided drafting and design, dynamics, electrical engineering, electronics, energy systems, hydrostatic stability, maritime welding, ship construction and materials, and thermal/fluid sciences.

F. Mechatronics, Robotics, and Automation Engineering Technology/Technician

A program that prepares individuals to apply basic engineering principles and technical skills in the support of engineers to the design, development, and operational evaluation of computer controlled electro-mechanical systems. Includes instruction in computer and software engineering, control engineering, electronic and electrical engineering, mechanical engineering, and robotics.

G. Motorsports Engineering Technology

A program of study that prepares individuals to design, construct, and repair vehicles used in racing and motorsports. Includes instruction in aerodynamics, design, vehicle dynamics, performance engines, fluid mechanics, computer-aided design (CAD), mechanical engineering, and welding.

H. Power Plant Technology/Technician

A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in the operation and maintenance of electricity generating power plants. Includes instruction in basic electricity, electrical power, generator operations, industrial controls, power plant instrumentation, power plant theory, pollution control, reactor theory, thermodynamics, turbines, and water chemistry.

I. Process Safety Engineering

A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing methods to mitigate damage, reduce risks, and prevent accidents. Includes instruction in design for injury prevention, engineering for process safety, environmental psychology, function-based risk analysis, fundamentals of industrial engineering, operations research, probability and statistics, risk assessment and reduction, and safety engineering.

J. Solar Photovoltaic Installation

A program that prepares individuals to design, install, maintain, and repair solar electric and solar thermal systems for commercial and residential applications. Includes instruction in basic electrical theory, electrical calculation, electrical safety, estimating, instrumentation and controls, solar energy fundamentals, solar photovoltaic systems, and sustainable energy technology.

K. Wooden Boatbuilding

A program that prepares individuals to apply technical knowledge and skills to construct and repair traditional and modern wooden boats. Includes instruction in budgeting, drafting, fairing, lofting, joinery, planking, spars and rigging, and woodworking.

26) BIOLOGICAL AND BIOMEDICAL SCIENCES.

A. Epidemiology and Biostatistics

A program with a general synthesis of epidemiology and biostatistics or a specialization which draws from epidemiology and biostatistics.

B. Infectious Disease and Global Health

A program that focuses on the physical, social, behavioral, cultural, economic, and political factors contributing to the cause and spread of infectious diseases. Includes instruction in research design and evaluation, infectious disease epidemiology, international health policy and management, microbiology, microbial genetics, molecular virology, disease mechanisms, antimicrobial resistance, immunology, and bioterrorism.

C. Wildlife and Conservation Biology

A program that focuses on solving issues related to the conservation and sustainability of wild animals and their habitats. Includes instruction in animal behavior, conservation biology, ecology, geographic information systems (GIS), environmental policy, molecular genetics, research design and analysis, and wildlife management.

27) MATHEMATICS AND STATISTICS.

A. Applied Statistics

A program that focuses on the application of statistics to the solution of functional problems in fields such as business, engineering, medicine, and the applied sciences. Includes instruction in the principles in probability theory, binomial distribution, regression analysis,

Appendix A. Proposed list of new CIP codes for TRP discussion

standard deviation, stochastic processes, Monte Carlo method, Bayesian statistics, non-parametric statistics, sampling theory, and statistical techniques.

29) MILITARY TECHNOLOGIES AND APPLIED SCIENCES.

A. Military Technology and Applied Sciences Management

A program that focuses on applied military science, military operations, intelligence gathering, military technology, and national security. Includes instruction in computer science, engineering, ethics, field training, leadership, military strategy, logistics, management skills, and politics.

30) MULTI/INTERDISCIPLINARY STUDIES.

A. Anthrozoology

A program of study that combines anthropology and zoology in order to examine the relationship between animals and humans. Includes instruction in animal behavior and communication, animal welfare, animal conservation, animal training, animal-assisted therapy techniques, biology, ethics, and education.

B. Climate Science

A program that focuses on the scientific study of the climate system of the earth with emphasis on the physical, dynamical, and chemical interactions of the atmosphere, ocean, land, ice, and the terrestrial and marine biospheres. Includes instruction in biology, chemistry, climate analysis, climate change adaptation/mitigation, climate policy, ecology, energy development, environmental impacts, marine chemistry, meteorology, and oceanography.

C. Data Analytics

A program that prepares individuals to apply data science to generate insights from data. Includes instruction in machine learning, probability and stochastic models, computer programming, strategy, computer databases, and visual analytics.

D. Data Science

A program that focuses on the analysis of large scale data sources from the interdisciplinary perspectives of computer science, mathematics, and statistics. Includes instruction in data mining, information retrieval, visual analytics, social media trend spotting, human-computer interaction, information policy, quantitative analysis, computer programming, statistics, data management, computer algorithms, and mathematical modeling.

E. Design Studies Design for Human Health

A program that focuses on the impact of design and architecture on the health of individuals and larger populations, and how to create settings that promote health, healing, and well-being. Includes instruction in architecture, interior design, human health services, communication studies, medical and clinical innovations, behavioral and engineering sciences, hospitals and health systems, and environmental conditions that influence health outcomes.

F. Earth Systems Science

A program that focuses on the interaction of the Earth's oceanographic, atmospheric, and terrestrial systems. Includes instruction in biogeochemistry, climate dynamics, geographical information science (GIS), geophysics, hydrology, landscape ecology, meteorology, and satellite remote sensing analysis.

G. Economics and Computer Science

A program of study that focuses on the theoretical and practical connections between computer science and economics. Includes instruction in data analysis, database design, data mining, computer algorithms, economics, econometrics, computer programing, mathematics, and statistics.

H. Economics and Mathematics

A program that focuses on applying mathematical methods to the development of economic theory, models, and quantitative analysis. Includes instruction in applied mathematics and statistics, calculus, econometrics, economic history, linear algebra, operations research, probability, and mathematical statistics.

I. Linguistics and Computer Science

A program that focuses on the relationship between computer and human language and computational techniques applied to natural language. Includes instruction in the computer programming, human languages, linguistic analysis, logic, natural language processing, semantics, machine learning, psycholinguist, software engineering, and syntax.

J. Mathematical Economics

A program that focuses on the application of mathematical methods to the development of economic theory, models, and quantitative analysis. Includes instruction in analysis, applied business economics, calculus, econometrics, linear algebra, microeconomic theory, probability, and statistical methods.

Appendix A. Proposed list of new CIP codes for TRP discussion

K. Mathematics and Atmospheric/Oceanic Sciences

A program that focuses on the application of mathematics to atmospheric and oceanic problems. Includes instruction in chemistry, physics, atmospheric/ocean dynamics, climatology, weather simulation, climate modeling, mathematics, oceanography, and atmospheric science.

L. Science and Technology

A program that prepares individuals to develop science, technical, and business skills required for management in technology-based industries, government agencies, and non-profit organizations. Includes instruction in applied math, calculus, computer applications, computer programming, general physics, innovation and emerging technologies, and physics.

40) PHYSICAL SCIENCES.

A. Environmental Geosciences

A program that focuses on the scientific study of the environmental implications of geological process and human activities on Earth. Includes instruction in environmental/natural resource management, geographic information systems (GIS), geology, hydrology, regulatory agency compliance, hazard identification and mitigation, environmental law, environmental policy, sustainability studies.

B. Geobiology

A program that focuses on the scientific study of how living things interact with geological systems. Includes instruction in evolution of Earth systems, geochemistry, geology, geomicrobiology, marine chemistry, paleobiology, paleoecology, paleontology, and petrology.

C. Physics and Astronomy

A program that focuses on the scientific study of the theories that explain the fundamental structure of our world and the universe and which draws from physics and astronomy. Includes instruction in astronomy, calculus, cosmology, differential equations, electricity, magnetism, data analysis, physics, quantum mechanics, space science, spectroscopy, and thermal physics.

51) HEALTH PROFESSIONS AND RELATED PROGRAMS.

A. Cancer Data Management

A program that prepares individuals to find, interpret, and record demographic and medical information on individuals with cancer for healthcare agencies and cancer registries. Includes instruction in medical terminology, anatomy, physiology, pathophysiology, pharmacology, statistics, epidemiology, cancer registry organization and operations, data management, fundamentals of oncology coding and staging, ethics, and quality management.

B. Christian Counseling

A program of study that prepares individuals to apply Christian faith components to the diagnosis and treatment of behavioral issues in individuals, couples, families, and groups. Includes instruction in assessment and diagnosis, biblical foundations for counseling, counseling theories, human growth and development, marriage and family therapy, psychopathology, and research and evaluation.

C. Clinical Leadership and Management for Healthcare Professionals

A program that prepares clinical healthcare professionals to become leaders within the healthcare industry. Includes instruction in electronic health records, epidemiology, biostatistics, financial management in the health sciences, health and medical care delivery systems, health law, health policy and politics, leadership, human resource management, quality and productivity improvement, and evaluation.

D. Clinical and Translational Science

A program of study that prepares clinicians to direct a broad range of clinical studies, translate scientific knowledge into clinical practice, and bridge clinical science with laboratory investigations. Includes instruction in bioinformatics, Information technology, biostatistics, grant writing, management and analysis of clinical data, clinical and translational research law and policy, responsible conduct of research, and scientific writing.

E. Forensic Nursing

A program that prepares individuals to apply the law and forensic science to nursing practice and collaborate with other professionals for the care of victims and the prosecution of criminals. Includes instruction in advanced physical assessment, evidence collection and preservation, forensic anthropology, legal testimony, medicolegal investigation, pathophysiology, pathohistology, pharmacology, and violence prevention.

F. Health Professions Education

A program that focuses on education and administration leadership skills for clinical educators across health professions and specialties. Includes instruction in academic leadership, assessment, clinical decision making, curriculum development, ethics, primary care education, program evaluation, research methods, and statistics.

G. Horticulture Therapy

A program that focuses on plant science and horticulture techniques to achieve measurable physical and mental health outcomes for individuals with physical or mental challenges. Includes instruction in abnormal psychology, adult development and aging, botany, facilities design, horticultural therapy, plant pathology, people-plant relationships, and psychology.

Appendix A. Proposed list of new CIP codes for TRP discussion

H. Hospice and Palliative Care

A program of study that prepares individuals to work with patients in hospice and palliative care and focuses on the physical, psychological, spiritual, and social needs of patients and families affected by advanced illness. Includes instruction in aging, thanatology, pharmacology, complementary and integrative therapies, pathophysiology, and ethics.

I. Hyperbaric Medicine Technology/Technician

A program that prepares individuals, under the supervision of physicians, to operate hyperbaric (recompression) chambers for the treatment of disease. Includes instruction in patient assessment and management, hyperbaric safety, physics of hyperbaric and hypobaric exposures, physiology, hyperbaric chamber operation, and air decompression procedures.

J. Infant/Toddler Mental Health

A program that prepares individuals to provide mental health services to infants, toddlers, and preschoolers and their families. Includes instruction in developmental psychology, cognitive and biological development, social and emotional development, research methods, and ethics.

K. Intraoperative Neuromonitoring Technology/Technician

A program that prepares individuals to become neuromonitoring technicians who analyze, monitor, and record nervous system function to promote the effective treatment of pathological conditions. Includes instruction in EEG technology, EMG technology, anatomy, and neuroanatomy.

L. Medical Family Therapy

A program that prepares individuals to work with patients and their families who are experiencing emotional, physical, relational and spiritual difficulties related to acute and chronic illnesses. Includes instruction in cultural context, ethics, family dynamics, family therapy, gender, human development, marriage counseling, psychopathology research design and methods, sexuality, and systems thinking.

M. Medical Humanities

A program that explores the ethical, historical, literary, philosophical, and religious dimensions of medicine. Includes instruction in art, cultural studies, economics, ethics, history, literature, medical anthropology, philosophy, religion and spiritual thought, science and technology, visual art, and writing.

N. Orthopedic Technology/Technician

A program that prepares individuals, under the supervision of a physician, to cast, splint, and brace orthopedic injuries. Includes instruction in patient assessment; casting, splinting, and orthopedic appliances; radiographic interpretation; traction; and wound care.

O. Pain Medicine

A post-residency program of study that prepares physicians in the diagnosis, management and, treatment of acute and chronic pain. Includes instruction in anesthesiology, pain assessment, pain classification and diagnosis, pain neuroscience, palliative and end-of-life care, physical medicine and rehabilitation, psychiatry of pain, pain pharmacology, public policy, and legal issues of pain management.

P. Patient Safety and Healthcare Quality

A program that focuses on the application of transformative mechanisms and evidence-based protocols to reduce preventable patient harm and improve clinical outcomes. Includes instruction in healthcare quality, patient safety, research methods, program evaluation, epidemiology, legal and regulatory compliance, systems thinking, human factors engineering, and risk management.

Q. Play Therapist

A program that prepares individuals to be a Registered Play Therapist (RPT) or a School Based-Registered Play Therapist (SB-RPT). Includes instruction in child development, theories of personality, psychotherapy, child and adolescent psychopathology, and ethics.

R. Pre-Art Therapy

A program that prepares an individual to be an Art Therapist. Includes instruction in abnormal psychology, aging, art history, art teaching, art mediums and techniques, community immersion in art, lifespan development, personality and sociocultural factors, psychotherapy, and studio art including ceramics, drawing, and sculpture.

S. Pre-Physician Assistant

A program that prepares individuals to apply for an entry-level graduate physician assistant program. Includes instruction in anatomy, biology, biochemistry, organic chemistry, microbiology physics, physiology, and psychology.

T. Psychiatric Rehabilitation and Psychology

A program that prepares individuals to assist clients with mental illness and psychiatric disabilities to achieve success and satisfaction in their living, learning, working, and social environments. Includes instruction in sociology, psychosocial rehabilitation, interviewing and counseling, group dynamics, psychopharmacology, workplace psychology, forensic psychology, and behavior modification.

Appendix A. Proposed list of new CIP codes for TRP discussion

U. Public Health Genetics

A program that prepares individuals to respond to the complex social, legal, ethical, and public health policy implications generated by genetic research. Includes instruction in biochemical genetics of complex diseases, bioethics, chromosomes and human disease, genetic counseling, genetic epidemiology, gene mapping, human population genetics, and the molecular basis of human inherited disease.

V. Rehabilitation, General

A program that prepares individuals to work with people who have learning disabilities, mental illness, and physical disabilities in a clinical, educational, or institutional setting. Includes instruction in abnormal psychology, assistive technology, case management, counseling techniques, cultural diversity, disability assessment and measurement, ethics, psychological and physiological aspects of disability, rehabilitation services, rehabilitation science, and vocational counseling.

W. Temporomandibular Disorders and Orofacial Pain

A program that focuses on the evaluation, diagnosis, and treatment of a wide variety of temporomandibular disorders (TMD) and orofacial pain disorders as well as the treatment of sleep apnea and snoring with intraoral appliances. Includes instruction in head and neck anatomy, physical diagnosis and evaluation, orofacial pain, neurobiology of pain and analgesia, and diagnostic radiography.

X. Trauma Counseling

A program that focuses on understanding elements of traumatic exposure, trauma-sensitive care, and crisis intervention. Includes instruction in disaster response, grief and loss counseling, crisis intervention and management, trauma counseling, neurobiology of trauma, PTSD and combat-related trauma, relational trauma and treatment of trauma-related disorders.

Y. Tropical Medicine

A program that prepares clinicians to prevent and control vector-borne and tropical infectious diseases. Includes instruction in microbiology, parasitology, mycology, virology, vector biology, vaccinology, laboratory diagnosis, travelers' health, epidemiology, and disease management.

Group 2: Arts, Humanities and Social Sciences, and Interdisciplinary Studies

05) AREA, ETHNIC, CULTURAL, GENDER, AND GROUP STUDIES.

A. Ancient Mediterranean Studies

A program that focuses on the study of ancient civilizations surrounding the Mediterranean Sea, such as Athens, Anatolia, Egypt, Greece, Israel, Mesopotamia, North Africa, and Rome. Includes instruction in ancient languages, ancient history, archaeology, anthropology, Greek and Roman mythology, philosophy, and religion.

B. Appalachian Studies

A program of study that focuses on the history, sociology, culture, and economics of the Appalachian region of the United States. Includes instruction in contemporary issues in Appalachia, political economy of Appalachia, community-based research, ethnomusicology, and oral and written languages of Appalachia.

C. Arctic Studies

An interdisciplinary program of study focused on the environment, people, and problems of the Arctic region. Includes instruction in Arctic Studies; Arctic History; Culture, History, and Languages of Indigenous People of the Arctic; Climate Change; Environmental Science; Polar Geography; Russian Studies; and Siberian Studies.

D. Comparative Studies

A program that focuses on the interdisciplinary and comparative study of the history, literature, sociology, politics, culture, and economics of different groups such as racial, gender, sexual, class, ethnic, geographical, and national. Includes instruction in comparative studies, comparative literature, critical race theory, cultural anthropology, cultural studies, religious studies, science studies, social and cultural theory, urban studies, and visual culture.

E. India/South Asian Studies

A program that focuses on the history, society, politics, culture, and economics of India, Pakistan, Afghanistan, Bangladesh, Nepal, Bhutan, and Sri Lanka. Includes instruction in South Asian art, architecture, history, ethnography, literature, politics, and religion.

09) COMMUNICATION, JOURNALISM, AND RELATED PROGRAMS.

A. Business Journalism

A program that focuses on the concepts, skills, and techniques needed to research, report, and write on business issues. Includes instruction in accounting, business administration, business reporting, business statistics, communications and media law, data analysis, economic reporting, financial analysis reporting, journalistic research methods and resources, and journalism skills and techniques.

Appendix A. Proposed list of new CIP codes for TRP discussion

B. Business and Economic Journalism

A program of study that prepares students to gather, analyze, and synthesize verbal and visual information to communicate stories related to business and economics across multiple media platforms. Includes instruction in business, business and economic reporting, economics, finance, financial accounting and reporting, and ethics.

C. Communication Management

A program of study that focuses on the skills needed to plan, execute, evaluate, and monitor communication strategies in an organization in order to achieve a desired outcome. Includes instruction in communication management, crisis communication, communication strategies, cross-cultural communication, organizational communication, leadership, and public relations.

D. Cultural Reporting and Criticism

A program of study that prepares individuals to be journalists who critically examine current culture as expressed through the visual arts, design, film, music, radio, television, and written text. Includes instruction in arts criticism, art and entertainment reporting, cultural critique, investigative reporting, newspaper reporting, photojournalism, and writing.

E. Information Communication Technology

A program that focuses on electronic publishing, information management, multimedia development and systems analysis and design. Includes instruction in computer science, cybersecurity, information networking, information communications technology, and project management.

F. Media Productions

A program that focuses on the use of digital media technology to communicate a message. Includes instruction in communication law, ethics, media direction and production, film, mass communication, radio, television production, storytelling, and video production and editing.

G. Science, Health, and Environmental Reporting

A program that focuses on reporting on science, health, and environmental policy disputes; investigating environmental problems and their causes; and public relations. Includes instruction in communication law, health reporting skills, interactive journalism, integrated marketing communication, journalism methods, media ethics, persuasion and political communication, science, health and the environment, social marketing, and video journalism.

H. Strategic Communications

A program that focuses on the critical thinking, analysis, and practical skills essential to developing and implementing communication strategies that advance organizations goals and missions. Includes instruction in communications law, digital and traditional marketing strategies, media relations, social media strategies, strategic communication, traditional and emerging media, and writing for the media.

13) EDUCATION.

A. Communication Arts/Literature Teacher Education

A program of study that prepares individuals to teach oral expression, literature, and writing to secondary students. Includes instruction in interpersonal communication, intercultural communication, language learning, listening instructional techniques, public speaking, reading instructional techniques, writing instructional techniques, and practical teaching experience.

B. Community College Leadership

A program that focuses on the principles and practice of administration in two-year colleges and which may prepare individuals to function as administrators in such settings. Includes instruction in higher education economics and finance; policy and planning studies; curriculum; faculty and labor relations; higher education law; college student services; research on higher education; institutional research; marketing and promotion; and issues of evaluation, accountability, and philosophy.

C. Education Entrepreneurship

A program that prepares individuals to create, fund, and manage innovations in education. Includes instruction in philanthropy, business modeling, design of learning environments, economics of education, entrepreneurship, evaluation, finance, human-centered design, investing, resource management, project management, and marketing.

D. Effective Teaching

A program that prepares new or experienced teachers to create effective, engaging, and responsive learning environments by combining current pedagogy, theory, and practice with advanced instructional design methods. Includes instruction in continuous quality improvement, becoming a reflective practitioner, leadership, instructional design, effective teaching and learning, pedagogy, and curriculum design.

E. Innovation and Entrepreneurship Education

A program that prepares individuals to teach innovation and entrepreneurship at various educational levels. Includes instruction in business development, finance, idea generation, investing, logistics, management, and marketing.

Appendix A. Proposed list of new CIP codes for TRP discussion

F. Institutional Research

A program of study that focuses on the skills and knowledge used in higher education administration, assessment, decision-making, planning, and reporting. Includes instruction in data analysis, data driven decision-making, data mining, higher education administration and organization, research methods, and statistics.

G. International School Leadership

A program that focuses on the principles and practice of administration in international schools, the study of international education as an object of applied research, and which may prepare individuals to function as administrators in such settings. Includes instruction in culture in the classroom, educational leadership, globalization, instructional design and technology, international research methods, evaluation, and education policy.

H. International Teaching and Learning

A program that prepares individuals to serve in schools that are implementing or proposing to implement the International Baccalaureate curriculum. Includes instruction in culturally-responsive classroom, cross-cultural awareness, foundations of international education, human learning, human development, international teaching and learning, and pedagogy.

I. Nutrition Education

A program that focuses on the science of nutrition and the educational strategies necessary to impact behavior change at the individual, community, and population level. Includes instruction in biochemistry, diabetes prevention, dietary patterns, food science, genetics, nutrition for the prevention and management of disease, sports nutrition, and wellness programming.

J. Online Educator/Online Teaching

A program that prepares individuals to teach students at various grade levels through online or hybrid instructional technologies. Includes instruction in andragogy, pedagogy, assessment, instructional design and technology, and learning science.

K. School Business Management

A program that prepares individuals to manage non-teaching activities at a school. Includes instruction in financial management, contract negotiation, financial reporting, fundraising, human resources, and strategic planning.

L. Science, Technology, Engineering, and Math (STEM) Education

A program that prepares individuals to connect education practices with scientific, engineering, and mathematical principles for PreK-12 students. Includes instruction in critical thinking, curriculum and instruction, history of STEM education, integrating STEM across curricula, learning sciences and technology, STEM education methods, and teacher leadership in STEM education.

M. Special Education Collaborative Teacher/Teaching

A program that prepares individuals to be advanced teachers serving students at all levels with behavioral, physical, or multiple disabilities. Includes instruction in assessment, assistive/educational technology, augmentative and alternative communication, autism spectrum disorders, behavior management, collaborative consultation, collaborative reading and math methods, communication skills for exceptional learners, diagnosis, and responsive teaching.

N. University and College Teaching

A program that prepares individuals to teach at a post-secondary institution. Includes instruction in andragogy, assessment, classroom motivation, instructional design and technology, learner centered teaching, learning science, syllabus construction, and teaching critical thinking.

16) FOREIGN LANGUAGES, LITERATURES, AND LINGUISTICS.

A. Armenian Language and Literature

A program that focuses on the Armenian language and literature in pre-modern and modern variants. Includes instruction in philology, ancient and medieval Armenian literature, Armenian mythology, Armenian history and culture, Armenian art, and contemporary social issues in Armenia.

23) ENGLISH LANGUAGE AND LITERATURE/LETTERS.

A. English as a Second/Foreign Language

A program that focuses on the theoretical and practical understanding of second language acquisition and methods for teaching English to English language learners. Includes instruction in anthropology, cognitive science, communications, education, foreign language, psychology, second language acquisition, and theories of language learning.

Appendix A. Proposed list of new CIP codes for TRP discussion

A. Cinema and Media Studies

A program that focuses the historical, cultural, social, political, and aesthetic aspects of film, electronic, and digital media production and exhibition. Includes instruction in cinematic communication; film and media theory; film and cinema; race, class, and gender in American film; and criticism and theory.

B. Cultural Studies and Comparative Literature

A program with a general synthesis of cultural studies and comparative literature or a specialization which draws from cultural studies and comparative literature.

C. Early Childhood and Family Studies

A program of study that focuses on the development and learning of children from birth to six years old within the context of the family. Includes instruction in child abuse and neglect, child and infant growth and development, early childhood education, early childhood language and literacy, early childhood math and science, early childhood special education, family literacy, family sociology, family and marriage relations, assessment and measurement, psychology, and psychopathology.

D. Foreign Language and International Economics

A program with a general synthesis of economics and the language and literature of a particular country or region or a specialization which draws from economics and the language and literature of a particular country or region.

X. Geoarcheaology

A program that focuses on the application of analytical techniques, concepts, and field methods from the earth sciences to solve archaeological questions related to human settlement, artifacts, site taphonomy, and paleoenvironments. Includes instruction in anthropology, ancient civilizations, archeology, geology, paleoclimatic reconstruction, sedimentology, and site taphonomic research. [*NOTE: This program is labeled with X due to its original misplacement in the printed meeting materials. It is placed in the correct group here.*]

E. Globalization Studies

A program of study that focuses on issues that cross national boundaries and have cultural, economic, and social consequences. Includes instruction in conflict studies, global culture, global development, global economy, global politics, geography, international relations, environmental issues, and sustainable development.

F. History and French

A program that focuses on the development of French and Francophone society, culture, and institutions from the origins to the present. Includes instruction in French language and literature, historiography, historical research methods, and applications to the study of specific themes, issues, periods, and institutions.

G. History and Literature

A program that focuses on the study in literature in its historical context. Includes instruction in art, drama, films, poetry, biography, historical literature, philosophy, and political science.

H. History and Political Science

A program with a general synthesis of history and political science or a specialization which draws from history and political science.

I. Humanitarian Studies

A program of study that prepares individuals to respond to humanitarian needs in the United States and abroad. Includes instruction in human rights, crisis communication, development economics, humanitarian crisis and response, ethics, politics, and public policy.

J. Linguistics and Anthropology

A program that focuses on the study of the anthropological, historical, anthropological, and sociological context of language with a particular emphasis on language use and its role in shaping cultural and social diversity. Includes instruction in applied linguistics, data management, field methods, language heritage, socialization, structure, linguistic analysis, linguistic theory, and multilingualism.

K. Philosophy, Politics, and Economics

A program that focuses on philosophical foundations, political institutions, collective behavior, economic theory, and economic influences. Includes instruction in econometrics, logic, metaphysics, moral responsibility, philosophy of language, philosophy of perception, philosophy through history, reasoning and persuasion, and social epistemology.

L. Preservation Studies

A program that focuses on historic preservation and the stewardship of cultural heritage and cultural resources. Includes instruction in architectural history and theory, cultural preservation, cultural resources management, historic preservation theories and practices, historical research methods, preservation planning, preservation techniques, and urban history.

Appendix A. Proposed list of new CIP codes for TRP discussion

M. Textual Studies

A program that focuses on the interconnected histories of digital texts, manuscript, and print for cultural and literary study. Includes instruction in archiving texts, bibliography, book and literary history, cultural studies, codicology, paleography, stemmatology, and textual criticism.

38) PHILOSOPHY AND RELIGIOUS STUDIES.

A. Catholic Studies

A program that focuses on Catholic thought, culture, and how Catholic tradition informs theology, culture, institutions, and identity. Includes instruction in Biblical Greek, Biblical Hebrew, Catholic bioethics, Catholic social thought, church history, Latin, philosophy, and theology.

B. Mormon Studies

A program that focuses on beliefs, practices, culture, and history of the Church of Jesus Christ of Latter-day Saints (Mormon). Includes instruction in Mormon culture, history, literature, philosophy, sociology, and theology.

C. Sacred Theology

A program that prepares individuals for careers in ministry and qualifies them for advanced theological study. Includes instruction in Biblical Theology, Biblical Greek and Hebrew, Church Law, Ethics, Pastoral Theology, Theological History and Methods, and Spirituality.

42) PSYCHOLOGY.

A. Performance and Sport Psychology

A program that focuses on the motor, physiological, and psychosocial aspects of sport behavior. Includes instruction in applied sport psychology, clinical mental health counseling, coaching, exercise physiology, ethical performance enhancement; human development, leadership and team building, mind-body practices, neuroscience, and personality and health.

B. Somatic Psychology

A program that focuses on a holistic approach to solving interpersonal issues and psychological problems. Includes instruction in authentic movement, body-mind balance and integration, contact improvisation, dance, Pilates, Tai Chi, relaxation techniques, and Yoga.

C. Transpersonal/Spiritual Psychology

A program that prepares individuals to pursue spiritual and psychological practices for counseling. Includes instruction in emotional intelligence, expressive movement, healing practices and rituals, human consciousness, movement and meditation, psychosomatic connection, spiritual systems and wellness, transpersonal counseling, and therapeutic trance.

45) SOCIAL SCIENCES.

A. Anthropology and Geography

A program that focuses on human cultures and their adaptation to physical environments. Includes instruction in archaeology, biogeography, climatology, cultural anthropology, cultural geography, economic development, environmental geography, geomorphology, global environmental change, historical geography, mapping sciences, physical anthropology, political ecology, Quaternary studies, and urban geography.

B. Applied Demography

A program of study that focuses on the practical application of demographic methods and materials for decision-making in business, education, health, and government. Includes instruction in statistics, research methods, geographic information systems, and demographic methods and techniques.

C. Geography/ Environmental Studies

A program that focuses on interactions between people and the natural and built environments. Includes instruction in climate science, sustainability, environmental science and policy, research methods, geographic information systems (GIS), human geography, physical geography, remote sensing, and public policy.

D. Survey Research/Methodology

A program that focuses on survey research design to gather data about behaviors, demographics, opinions, and data analysis to answer complex questions. Includes instruction in analysis of survey data, cross-cultural and multi-population survey methodology, data collection methods, modes of survey analysis, quantitative analysis, questionnaire design, research design, sampling, survey error, and structural equation modeling.

E. Transportation and Infrastructure Planning/Studies

A program that focuses on the theory, policy, law, and practices required to operate and supply transportation facilities and services. Includes instruction in transportation engineering, control systems, environmental planning, project management, public policy, transportation economics, geographic information systems (GIS), transportation operations, and logistics.

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F. Urban and Regional Studies

A program that focuses on human-environment interaction and land development. Includes instruction in architecture, cultural and economic change, economic analysis, law, physical and human geography, political science, public policy, transportation, and urban development and planning.

50) VISUAL AND PERFORMING ARTS.

A. Metal Arts

A program that focuses on the development of individual artistic expression and technical skills necessary for fabricating refined metal works. Includes instruction in aesthetics, anodizing, art history, casting, electroforming, enameling, jewelry design, metalsmithing, sculpture, two and three-dimensional design, wax carving and welding.

B. Sound Arts

A program that focuses on sound as a form of cultural expression, and its relationship to other disciplines such as computer programming, performance, and video. Includes instruction in acoustics; arranging, composing, and editing music; music theory; musicology; orchestration and scoring; and sound design.

C. Theater and Dance

A cross-disciplinary program that focuses on integrating the studies dance of theater arts to provide perspectives in all facets of production, performance and critical engagement. Includes instruction in acting, aesthetics, choreography, costume design, criticism, dance, improvisation, music analysis, play writing, theater performance history, scene design, stage lighting, and technical theater.

Group 3: Career Preparation, Vocational Training, and Personal Growth and Enrichment

04) ARCHITECTURE AND RELATED SERVICES.

A. Advanced Architectural Design

A program of study for existing architects and related professions that focuses on theoretical and practical issues in architecture and integrates digital technologies into architectural design, fabrication and construction. Includes instruction in architectural history and urban theory, 3-D digital technologies, construction, design and fabrication methods, and sustainable practices in architecture.

B. Architectural Conservation

A program that focuses on the preservation of historical buildings, districts and landscapes. Includes instruction in architectural history, building conservation, cultural resource management, historical documentation and preservation, and material conservation.

C. Architectural Design

A program of study for existing architects and related professions that focuses on theoretical and practical issues in architecture and integrates digital technologies into architectural design, fabrication and construction. Includes instruction in architectural history and urban theory, 3-D digital technologies, construction, design and fabrication methods, and sustainable practices in architecture.

D. Architectural Studies

A program of study that is a precursor to an advanced degree in architecture. Includes instruction in architectural design, architectural graphics, architectural history, architectural technology, architectural theory and criticism, building technology, calculus, design studio, human factors, environmental architecture, geometry and trigonometry, physics, and technical drawing.

E. Healthcare Design and Innovation

A program that focuses on the design and performance of healthcare environments to optimize healing. Includes instruction in interior design, architecture, healing sciences, healthcare environments, human centered design, and healthcare delivery.

F. Sustainable Design

A program that focuses on the application of biological, physical, social science in the design of sustainable cities and metropolitan regions. Includes instruction community revitalization, community economic development; construction technology, design innovation, environmental economics, ethics, justice and politics, sustainable materials, sustainability theory, structural materials, and urbanism.

12) PERSONAL AND CULINARY SERVICES.

A. Casino Dealing

A program of study that prepares individuals to apply technical skills and knowledge to become a table games dealer in a casino or other recreational setting. Includes instruction in dealing techniques for Baccarat, Blackjack, Carnival Games, Craps, Poker, and Roulette.

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<u>**19) FAMILY AND CONSUMER SCIENCES/HUMAN SCIENCES.**</u>

A. Adolescent Development

A program of study that focuses on the physical and mental development of youth from the onset of puberty to complete growth and maturity (ages 13-21). Includes instruction in social, cognitive, and physical development, lifespan development, family systems, biology, education, psychology, and sociology.

B. Human Service Studies

A program that prepares individuals to serve in a variety of social service occupations, including client services, community development and advocacy, and leadership across human services agencies. Includes instruction in ethics, family studies, group dynamics, psychology, public administration, sociology, and social services helping process.

C. Parent Education

A program that prepares individuals to plan, coordinate, and teach parent education programs and services that address the cultural, emotional, intellectual, physical and social needs of children and parents. Includes instruction in child development, cultural diversity in schools, child behavior, family development, family-community partnerships, family dynamics, interpersonal relationships, parent-child relationship and social services.

D. Substance Abuse / Addiction Studies

A program that prepares individuals to recognize and treat individuals in the areas of chemical dependency and addiction. Includes instruction in behavior modification, case management, co-occurring disorders, developmental psychology, family and substance abuse counseling, intervention strategies, life skills, mental illness and addiction, physiology, and sexual issues in addiction.

<u>**22) LEGAL PROFESSIONS AND STUDIES.**</u>

A. Agriculture Law

An advanced, professional study of the law, policies, and regulations for lawyers and non-legal professionals in food and agriculture.

B. Arts and Entertainment Law

An advanced, professional study of the law, policies, and regulations affecting the sports, fashion, entertainment, arts, or media industries.

C. Compliance Law

An advanced, professional study of the law, policies, and regulations for lawyers and non-legal professionals in corporate compliance, ethics, internal monitoring, regulatory affairs, and related areas.

D. Corporate Compliance

A program of study that prepares individuals to understand the corporate regulatory environment and to ensure compliance with regulations and laws. Includes instruction in corporate compliance, ethics, internal monitoring, and regulatory affairs.

E. Court Interpreter

A program of study that prepares individuals to provide accurate translation and interpretation between English and a foreign language for parties involved in a legal proceeding. Includes instruction in courtroom standards and procedures, court interpreting, legal terminology, consecutive interpretation, simultaneous interpretation, and sight translation.

F. Criminal Law and Procedure

An advanced, professional study of the law, policies, and regulations affecting criminal law and procedure.

G. Family/Child/Elder Law

An advanced, professional study of the law, policies, and regulations affecting domestic relations across the lifespan.

H. Human Resources Law

An advanced, professional study of the law, policies and regulations affecting human resources. Includes instruction in anti-discrimination, arbitration, collective bargaining relationships, mediation, regulation of employee benefits, and workplace health and safety.

I. Juridical Science

An advanced, professional study of the law, policies, and regulations which prepares individuals to make an original and substantive contribution to legal scholarship with respect to a specific topic, problem, or area of law.

J. Juris Master (J.M.) Degree

An advance degree that prepares non-lawyers in legal doctrine and analysis, emphasizes the broader social context of the law and contextualizes important legal, business and regulatory issues. Includes instruction in the American legal system, contracts law, constitutional law, legal writing, legal research, property law, and tort law.

Appendix A. Proposed list of new CIP codes for TRP discussion

K. Law and Entrepreneurship

An advanced, professional study of the law, policies, and regulations affecting entrepreneurship and innovation.

L. Law and Public Policy

A program that focuses on law, policy, and regulations on a national or international scale. Includes instruction in administrative law, constitutional law, ethics, policy analysis and public management.

M. Legal Advocacy

A program that focuses on the fundamental principles of trial and appellate advocacy and litigation. Includes instruction in advocacy, alternative sentencing, intervention legal studies, and victim support.

N. Patent Law

An advanced degree that prepares individuals to practice patent prosecution and represent inventors and innovators in the process of obtaining a patent. Includes instruction in intellectual property law, patent and trade secret law, patent drafting, and patent litigation.

O. Real Estate and Land Development Law

An advanced, professional study of the law, policies, and regulations affecting real estate and land development.

P. Transportation Law

An advanced, professional study of the law, policies, and regulations affecting land, sea, air, and space transportation.

Q. Tribal/Indigenous Law

An advanced, professional study of the law, policies, and regulations affecting federal Indian law, tribal law and policy, and indigenous peoples' human rights.

30) MULTI/INTERDISCIPLINARY STUDIES.

A. Financial Analytics

A program that focuses on financial big data modeling from algorithms to cloud-based data-driven financial technologies. Includes instruction in financial analytics, financial data processing and knowledge management, data visualization, effective decision communication, machine learning for finance, statistical inference and dynamic modeling on financial data, and project management.

B. Integrated Design

A program that focuses on combining the methods of design with the methods of engineering and business. Includes instruction in design, engineering, business, human-centered design, and aesthetics.

C. Rehabilitation and Disability Studies

A program of study focused on providing individuals with physical, emotional, mental, and developmental disabilities with the skills and services required to obtain employment, live independently, and achieve personal goals. Includes instruction in assistive technology, disability assessment, medical and psychological aspects of disability, principles of social work, rehabilitation case management, rehabilitation counseling, and vocational counseling.

D. Science and Business

A program that prepares individuals to translate scientific and technological ideas into products and services. Includes instruction in business/scientific communication, finance and accounting, food and drug law, medical devices, pharmaceutical development and discovery, and statistics.

E. Thanatology

A program of study that focuses on death, dying, and bereavement. Includes instruction in counseling, ethics, grief, palliative and hospice care, philosophy, thanatology, and theology.

32) BASIC SKILLS AND DEVELOPMENTAL/REMEDIAL EDUCATION.

A. Accent Reduction/Modification

A program that focuses on accent modification and effective pronunciation in order to assist individuals in changing their accents/dialects to Standard American English. Includes instruction in changing speech patterns, intonation, phonology, pronunciation, rhythm, semantics, syntax, vocabulary, voice production, and word order.

B. Test and Exam Preparation

A program that focuses on providing students with general test-taking strategies as well as a review of major concepts in the sciences, mathematics, reading, and vocabulary. Includes instruction in critical thinking, English syntax and grammar, logic, quantitative reasoning skills, test-taking strategies, and verbal reasoning and vocabulary.

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C. Workforce Training/Development

A program that focuses on developing and implementing training to support employers, employees, as well as individuals who are underemployed and unemployed. Includes instruction in data analysis, evaluation, instructional design, organizational behavior, adult education and training, and workforce performance improvement.

34) HEALTH-RELATED KNOWLEDGE AND SKILLS.

A. Emergency Preparedness

A program of study that focuses on the leadership and management skills needed to prepare and respond to critical threats such as natural disasters, hazardous spills, and security threats. Includes instruction in communication, community preparedness, decision-making, disaster management, disaster recovery, disaster preparation, emergency planning and preparation, resource planning, and risk and hazard impact.

B. Meditation/Mind-Body Wellness

A program that focuses on meditation and mindfulness training, and how these techniques can enhance brain function, regulate emotions, reduce stress, and increase compassion. Includes instruction in alternative medicine, innovative and ancient healing practices, inspired creativity and the arts, meditation, mindfulness, neuroscience, religious belief systems, spiritual psychology, therapeutic movement, and visualization meditation.

36) LEISURE AND RECREATIONAL ACTIVITIES.

A. Beekeeping

A program that focuses on improving the beekeeping industry, promoting pollination of fruits and vegetables, and bee colony expansion and maintenance. Includes instruction in apiary behavior, apiary equipment and supplies, beekeeping, bee pests and parasites, handling bees, hive set up and care, queen rearing, and seasonal management practices.

B. Firearms Training/Safety

A program that focuses on the fundamentals of gun operation, shooting techniques, and firearm safety. Includes instruction in ammunition, firearm cleaning, firearms law, firearm operation, and shooting techniques.

C. Floral Design/Arrangement

A program that focuses on the techniques of floral design based on color palette, theme, season, and flower selection. Includes instruction in botanical terminology, flower handling and identification, foliage and plants, traditional and contemporary floral design, use of seasonal, dry, silk, or exotic plant materials, and retail flower shop operations.

D. Master Gardener/Gardening

A program that prepares individuals to educate the public on science-based, environmentally-sound practices in sustainable gardening and horticulture. Includes instruction in vegetables, houseplants, composting, flowers, fruits, turf grass, woody plants, plant propagation, pollination, soils, wildlife management, integrated pest management, plant pathology, and entomology.

E. Motorcycle Rider Education

A program that prepares individuals to ride motorcycles for personal use and qualifies them to sit for a motorcycle license examination. Includes instruction in motorcycle operation, riding skills, safety, and traffic rules.

37) PERSONAL AWARENESS AND SELF-IMPROVEMENT.

A. Driver's Education

A program that prepares individuals to drive automobiles for personal use and qualifies them to sit for a driver's license examination. Includes instruction in automobile operation, driving skills, safety, and traffic rules.

B. Investing / Wealth Management / Retirement Planning

A program that prepares individuals to evaluate financial health, establish financial planning strategies, and solve financial problems, based on an individual's short term and long term financial goals. Includes instruction in asset management, estate planning, college savings, investment theory, insurance, real estate, retirement planning, and taxation.

C. Life Coaching

A program that focuses on assisting individuals in achieving personal goals such as life transitions, relationships, physical well-being, emotional well-being, and career choices. Includes instruction in coaching methodologies, coaching research techniques, group coaching, personal coaching, leadership techniques, and vocational/career development.

D. Self-Defense

A program that focuses on defensive concepts and techniques against various types of assault. Includes instruction in basic principles of defense, continuum of survival, date rape, defensive mindset, weapons and strategies, offensive and defensive postures recognizing vulnerable locations, risk reduction strategies, and using personal weapons.

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39) THEOLOGY AND RELIGIOUS VOCATIONS.

A. Canon Law

A program of study that focuses on the history, theology, and philosophy of church and ecclesiastical law and that prepares individuals to serve as professional canonists.

B. Chaplain/Chaplaincy Studies

A program that prepares individuals to provide caregiver, pastoral, and spiritual support in an institutional, hospice, military, or sports setting. Includes instruction in global, healthcare, prison, and sports chaplaincy; addiction, crisis, disaster, family, marriage, grief, and loss counseling; ethics; leadership; multi-cultural, multi-faith contexts; and worship.

C. Church Planting

A program of study that prepares individuals to establish congregations of Christians in new locations. Includes instruction in models of church planting, church multiplication strategies, church leadership, evangelism, missiology, Christian ethics, and mission-oriented theology.

D. Contemplative Studies/Inquiry

A program that focuses on the philosophical, psychological, and scientific bases of human contemplative experience. Includes instruction in cognitive science, meditation, mindfulness, neuroscience, philosophy, psychology, and religion.

E. Worship Ministry

A program of study that focuses on the use of musical and theatrical arts in Christian worship. Includes instruction in digital media, electronic hardware design and installation, music, theater, and worship theology.

43) HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING AND RELATED PROTECTIVE SERVICES.

A. Criminal Justice and Corrections, General

A program of study that focuses on the general study of criminal justice and corrections. Includes instruction in criminology, criminal justice, correctional science, forensic science, law enforcement, psychology, and ethics.

B. Geospatial Intelligence

A program that prepares individuals to analyze security and intelligence problems using a geographic perspective by relating human actions to cultural, political, economic, social, and physical landscapes. Includes instruction in aerial photography analysis, cartography, geographic information systems, physical geography, remote sensing, spatial programming, and quantitative methods in geographic research.

C. Information Security and Cybersecurity Defense

A program that focuses on the study of strategy, policy, and standards regarding the security of and operations in cyberspace. Includes instruction in incident response, information assurance, recovery policies, vulnerability reduction, deterrence, threat reduction, and resiliency.

44) PUBLIC ADMINISTRATION AND SOCIAL SERVICE PROFESSIONS.

A. Forensic Social Work

A program that prepares individuals to serve as social workers in correctional facilities, mental health hospitals, the justice system, substance abuse treatment programs, and victim assistance. Includes instruction in forensic social work, criminal justice administration, domestic violence, ethics, juvenile justice systems, mental illness and crime, program evaluation, and research methods.

B. Transportation Planning and Management

An inter-disciplinary program that focuses on the economic, social, spatial, and environmental aspects of transportation planning and management. Includes instruction in economics, geographic information systems (GIS), risk analysis and communication, transportation evaluation, transportation management and planning, transportation policy, and urban transportation planning.

46) CONSTRUCTION TRADES.

A. Heavy Equipment Operation

A program that prepares individuals to operate a variety of heavy equipment used in the construction and transportation industries. Includes instruction in heavy equipment operation, diagnostics, maintenance, repair, and safety skills.

49) TRANSPORTATION AND MATERIALS MOVING.

A. Forklift Operator Certification

A program that prepares individuals to operate forklifts in a variety of work environments. Includes instruction in accident prevention, forklift operation, materials handling, and worksite safety.

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<u>52) BUSINESS, MANAGEMENT, MARKETING, AND RELATED SUPPORT SERVICES.</u>

A. Brewery/Brewpub Operations/Management

A program that prepares individuals to plan, manage, and market breweries and brewpubs. Includes instruction in brewing science, food services management, logistics and distribution, business networking, personnel management, business planning and capitalization, brewing industry operations, marketing, alcohol and liquor law and regulations, finance, and ethics.

B. Business Analytics

A program that prepares individuals to apply data science to solve business challenges. Includes instruction in machine learning, optimization methods, computer algorithms, probability and stochastic models, information economics, logistics, strategy, consumer behavior, marketing, and visual analytics.

C. Construction Project Management

A program that prepares individuals to apply quantitative and qualitative knowledge, skills, tools, and techniques to manage projects in the construction and facility management industries. Includes instruction in facilities operations and maintenance, construction estimating, OSHA standards, sustainability, drafting, construction plans, project planning, risk management, cost and time management, contracts and procurement, accounting, statistics, decision making, and human resources.

D. Executive/Career Coaching

A program of study that focuses on assisting individuals achieve career goals or assisting business leaders achieve organizational change. Includes instruction in executive coaching, group dynamics, leadership, management, organizational behavior, organizational communication, and team building.

E. Finance and Risk Management

A program that prepares individuals to identify and manage the strategic, operational, cyber, and financial risks facing business. Includes instruction insurance operations, insurable and uninsurable risks, risk reduction, risks for individuals and businesses, property and casualty insurance, and insurance company operations.

F. Financial Risk Management

A program that focuses on the strategies used to define and manage acceptable financial risk for companies. Includes instruction in banking and bank regulations, derivative securities, interest rate and credit markets, financial engineering of systematic risk, and equity, bond, futures, and options markets.

G. Grantsmanship

A program that prepares individuals to develop and write grant proposals to support an organization or cause. Includes instruction in identifying grant opportunities, developing an effective proposal, budget justifications, and developing a working relationship with the funder.

H. Healthcare Innovation

A program that prepares individuals to innovate solutions and lead change within a healthcare organization. Includes instruction in innovation management, medical device development, evidence-based practice, systems thinking, information technology, healthcare policy and finance, organizational change, and leadership.

I. Information Systems Auditing and Control

A program that prepares individuals to perform information systems governance, security, audit, and assurance. Includes instruction in asset protection, auditing, computer forensics, computer information systems, cybersecurity, incident response, information technology, project management, privacy, and risk management.

J. Nonprofit Leadership Studies

A program of study that prepares individuals to assume leadership roles in the non-profit sector. Includes instruction in leadership studies, program development, marketing and public relations, fundraising, grant writing, nonprofit finance, research design, and evaluation.

K. Public Works Management

A program of study that focuses on public works management skills and public works operation. Includes instruction in accountability, budget, conflict resolution strategies, ethics, finance, human resources, labor and employee relations, and operations management.

L. Regulatory Science/Affairs

A program that prepares individuals to manage the regulatory process for companies innovating and developing cutting edge products in science, biotechnology, pharmaceuticals, and medicine. Includes instruction in regulatory affairs, clinical documentation, human and animal subject protection, Food and Drug Administration (FDA) regulations, data management and analysis, good manufacturing practices, and quality management.

M. Research Administration

A program designed to prepare formally trained, advanced-level personnel for research administration leadership positions at colleges and universities, government agencies, hospitals, nonprofit agencies, and in industry. Includes instruction in bioethics, biostatistics, ethical, legal

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and regulatory consideration in clinical investigation, financial analysis, grant writing, managing and monitoring clinical trials, project management, strategic planning, and team building.

N. Risk Management

A program that focuses on the principles of business risk measurement, mitigation, and management. Includes instruction in business analytics, foundations of insurance and risk management, investments, life and health insurance, loss prevention, property and liability insurance risk assessment, risk control, risk financing, and security.

O. Social Entrepreneurship

A program that focuses on blending entrepreneurial ideas and management skills for issue advocacy and social change. Includes instruction in philanthropy, business modeling, design, entrepreneurship, finance, investing, resource management, project management, prototype development, and marketing.

P. Social Media Management

A program of study focused on planning, executing, and assessing an effective social media campaign to achieve a desired outcome. Includes instruction in advertising, public relations, social media analytics, applications, strategies, tactics, and writing.

Q. Social Media Marketing

A program that prepares individuals to create and implement social media marketing campaigns. Includes instruction in consumer behavior, data analysis, marketing strategies, media technologies, psychology, and search engine optimization (SEO).