

**Methodology for Updating Programs of Strategic Emphasis
in the State University System of Florida, Board of Governors
2019 Mid-Course Correction - 2025 Strategic Plan**

September 2019

An essential component of the 2025 Strategic Plan mid-course correction initiative is the need to update the current State University System list of Programs of Strategic Emphasis (PSE). The Programs of Strategic Emphasis exist as one of several tools for aligning the degree production goals of the State University System with the economic and workforce needs of Florida. Also, the Programs of Strategic Emphasis is a component in Performance-Based Funding.

As in past revisions to the Programs of Strategic Emphasis list, a meta-analysis of the current reports and data of key economic and workforce councils in Florida was conducted. These “key councils” include Enterprise Florida, Inc., the Council of 100, the Florida Chamber of Commerce, and the Department of Economic Opportunity. Other organizations whose reports and data were used to inform this process include the Florida Center for Nursing, the Florida Department of Education, and the U.S. Department of Labor.

The methodology used to reevaluate assumptions and forecasts that provide the framework for targeting degree programs is relatively straightforward.

- 1) Identify the recommendations of Florida’s leading economic and workforce councils (key councils) and national reports.
- 2) Merge and evaluate the areas of interest and emphasis from the key councils to determine appropriate broad program categories that are in alignment. This review did not reveal any reason to adjust the current broad program categories.
- 3) Identify specific academic programs and program clusters by CIP code¹ that should be included in the broad program categories (Appendix A).

The academic degree programs associated with the proposed new categories are identified in

Appendix A. An expanded list of all available programs for those targeted at the two and four-digit CIP code level can be accessed online.² It should be noted that not all of the CIP codes found in the online expanded list represent programs currently offered within the State University System. Having a complete list allows for new degree programs to be appropriately categorized when they are added to the State University System Academic Degree Program Inventory. It should also be noted that a transition is under way from the current CIP 2010 taxonomy to the new CIP 2020 codes. During this transition, any CIP 2010 that qualifies as a

¹ CIP is the Classification of Instructional Programs code required for reporting degrees and enrollments to the National Center for Educational Statistics and used by the Board of Governors to inventory approved degree programs in the State University System (SUS). The standardized CIP code allows for comparative data to be collected and analyzed at both the state and national level.

² <http://nces.ed.gov/ipeds/cipcode/default.aspx?y=55>

PSE under this methodology and is moved to a new CIP code under the 2020 designation will automatically qualify as a PSE.

APPENDIX A: Proposed Programs of Strategic Emphasis for the State University System of Florida, Board of Governors 2025 Strategic Plan

About CIPs

The Classification of Instructional Programs (CIP) provides a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions activity. CIP was originally developed by the U.S. Department of Education's National Center for Education Statistics (NCES) in 1980, with revisions occurring periodically since that time as new programs emerged and existing program curriculums evolved.

The CIP taxonomy is organized on three levels:

1. The two-digit series, representing the most general groupings of related educational programs (e.g., 14. Engineering)
2. The four-digit series, representing intermediate groupings of educational programs that have comparable content and objectives (e.g., 14.08 Civil Engineering)
3. The six-digit series, representing specific instructional programs with very similar content and objectives (e.g., 14.0803 Structural Engineering as a subset of Civil)

Postsecondary educational institutions use six-digit CIP codes when completing the IPEDS Completions Survey required for participation in federal financial aid programs. Six-digit codes are the most detailed program classifications within the CIP and represent the basic unit of analysis used by NCES and institutions in tracking and reporting program completions and fields of study data.

Source: NCES, *Integrated Postsecondary Education Data System (IPEDS)*, online manual.³

Proposed Categories for Programs of Strategic Emphasis with Associated CIP

1. Critical Workforce – Education

The Education category is largely based upon the Florida State Board of Education list of critical teacher shortage areas which is published annually. This list can change from year to year but typically remains the same with only one or two additions/deletions. It is also important to consider the critical shortage list within the broader context of the workforce demand for teachers in all specialties, and, for this reason, all teacher education programs were included in the original targeted list associated with the SUS 2005-2013 strategic plan.

It is proposed that the updated program list include all of the programs related to teacher preparation and student counseling at the K-12 level. However, it is recommended that 13.0101 - Education, General be removed from the list as this program is overly broad, does not typically lead directly to teacher certification, and does not typically lead to employment as a K-12 teacher in an area of critical need per the Florida Department of Education. It is also recommended that 42.2805 – School Psychology be added to the list as this is a critical mental health support function for K-12 education.

³ <http://nces.ed.gov/ipeds/cipcode/default.aspx?y=55>

The overall approach will allow for targeting academic programs at the 4-digit CIP code level and eliminate any need for annual updates to the category due to changes in the state board list or programmatic reorganizations at the universities.

EDUCATION CIP CODES:

- 13.0301 Curriculum and Instruction
- 13.10 Special Education and Teaching (all)
- 13.11 Student Counseling and Personnel Services (all)
- 13.12 Teacher Education and Professional Development, Specific Levels and Methods (all)
- 13.13 Teacher Education and Professional Development, Specific Subject Areas (all)
- 13.14 Teaching English or French as a Second or Foreign Language (all)
- 42.2805 School Psychology

2. Critical Workforce - Healthcare

The Healthcare category is based primarily on workforce projections by the Florida Department of Economic Opportunity. These organizations have identified the healthcare professions that exist as critical shortage areas in Florida. Also, a shortage of nursing faculty is frequently cited as a critical need occupation because of the direct impact on registered nurse education programs.

There are several health-related technology and data management programs that have emerged in recent years as high-demand and high-wage occupations. Also, there is a consensus that Florida will need to expand its healthcare workforce in all related occupations as the population continues to grow and the state experiences a demographic transition as the Baby Boom Generation retires.

It is proposed that this category include all health-related degree programs (not just healthcare practitioners) under the 51 CIP Code along with selected programs that may exist under other two-digit CIP families.

HEALTHCARE CIP CODES:

- 51 Health Professions and Related Programs (all)
- 30.1101 Gerontology

3. Economic Development - Global Competitiveness

The Global Competitiveness category represents more of an over-arching concept found in the various reports reviewed rather than a specific industry or occupational area. Degree programs that assist in making the SUS globally competitive can be found throughout the system across many disciplines, especially within the sciences, engineering, and information technology programs. However, there are programs that directly support globalization through program graduates and focused research. Some of these programs have an international focus, such as international affairs, international business, international construction, and international law. Area studies and foreign language programs that focus on critical trade partners or foreign competitors also fall under the broad umbrella of increasing globalization.

It is proposed that this category include only programs for which a strong case has been made for enhancing Florida's global competitiveness.

GLOBAL COMPETITIVENESS CIP CODES:

- 05.0103 Asian Studies/Civilization
- 05.0107 Latin American Studies
- 05.0134 Latin American and Caribbean Studies
- 05.0201 African-American/Black Studies
- 13.0701 International and Comparative Education
- 16.0101 Foreign Languages and Literatures, General
- 16.0102 Linguistics
- 16.0399 East Asian Languages, Literatures, and Linguistics, Other
- 16.0904 Portuguese Language and Literature
- 16.0905 Spanish Language and Literature
- 22.0210 International Business, Trade, and Tax Law
- 30.2001 International/Global Studies
- 45.0901 International Relations and Affairs
- 52.1101 International Business/Trade/Commerce
- 52.1502 International Real Estate - CIP assigned by BOG staff (does not exist in NCES)

4. Economic Development – STEM

STEM is a critical category in that it emphasizes the importance of science, technology, engineering, and mathematics programs to Florida's economy. Active STEM lists were researched to identify those that are used nationally to determine whether a program qualifies as STEM. Four such lists were selected as primary references to determine programs eligible to be added to the STEM PSE list, including those produced and published by the Florida Department of Economic Opportunity, the Department of Homeland Security, the National Science Foundation, and the Washington State Education Research and Data Center. Under this year's methodology, programs needed to appear on at least two of these four lists to be considered for addition to the STEM PSE list.

Many of the STEM academic programs can be targeted at the two-digit CIP level, and others can be targeted at the four- or six-digit level. However, there are STEM-related degrees at the four- and six-digit CIP level embedded in disciplines that are not generally associated with science, technology, engineering, and math such as education and management. These have also been included in the list of STEM CIP codes.

STEM CIP CODES:

- 01.01 Agriculture, General
- 01.0308 Agroecology and Sustainable Agriculture
- 01.09 Animal Sciences
- 01.10 Food Science and Technology
- 01.11 Plant Sciences

- 01.12 Soil Sciences
- 01.9999 Agriculture, Agriculture Operations, and Related Sciences, Other
- 03 Natural Resources and Conservation (all)
- 04.0201 Architecture
- 04.0401 Environmental Design/Architecture
- 04.0601 Landscape Architecture
- 04.0902 Architectural and Building Sciences/Technology
- 04.0999 Architectural Sciences and Technology, Other
- 09.0702 Digital Communication and Media/Multimedia
- 11 Computer and Information Sciences and Support Services (all)
- 13.0501 Educational/Instructional Technology
- 14 Engineering (all)
- 15 Engineering Technologies and Engineering-Related Fields (all)
- 26 Biological and Biomedical Sciences (all)
- 27 Mathematics and Statistics (all)
- 29.0207 Cyber/Electronic Operations and Warfare
- 30.01 Biological and Physical Sciences
- 30.06 Systems Science and Theory
- 30.08 Mathematics and Computer Science
- 30.10 Biopsychology
- 30.15 Science, Technology and Society
- 30.16 Accounting and Computer Science
- 30.17 Behavioral Sciences
- 30.18 Natural Sciences
- 30.19 Nutrition Sciences
- 30.25 Cognitive Science
- 30.27 Human Biology
- 30.30 Computational Science
- 30.31 Human Computer Interaction
- 30.32 Marine Sciences
- 30.33 Sustainability Studies
- 31.0505 Kinesiology and Exercise Science
- 40 Physical Sciences (all)
- 42.27 Research and Experimental Psychology
- 43.0106 Forensic Science and Technology
- 43.0111 Criminalistics and Criminal Science
- 43.0116 Cyber/Computer Forensics and Counterterrorism
- 43.0303 Critical Infrastructure Protection
- 45.0301 Archeology
- 45.0603 Econometrics and Quantitative Economics
- 45.0702 Geographic Information Science and Cartography
- 50.0102 Digital Media
- 52.0203 Logistics, Materials, and Supply Chain Management
- 52.1201 Management Information Systems, General
- 52.1301 Management Science

- 52.1302 Business Statistics
- 52.1304 Actuarial Science
- 52.1399 Management Sciences and Quantitative Methods, Other

5. Critical Workforce – Gap Analysis

Gap Analysis is a category that includes degree programs leading to the occupational categories projected to be critically under-supplied in the Board of Governors' analysis of labor market projections and related degree production. Consequently, the academic programs included in this category correspond to Florida's high-need, high-wage occupational areas identified through the gap analysis. A comprehensive methodology for conducting the gap analysis is available on the Board of Governors' website.

Institutions will still be expected to work with local industries and employers to identify academic programs needed to support local or regional economic development and workforce needs.

This category only includes academic programs identified in the gap analysis that are not included in another category of Programs of Strategic Emphasis (e.g., industrial engineering would be captured under STEM, so it is not necessary to include it under gap analysis).

GAP ANALYSIS CIP CODES:

- 04.1001 Real Estate Development
- 09.0101 Speech Communication and Rhetoric
- 09.0900 Public Relations, Advertising, and Applied Communication
- 09.0902 Public Relations/Image Management
- 09.0905 Health Communication
- 19.0203 Consumer Merchandising/Retailing Management
- 43.0117 Financial Forensics and Fraud Investigation
- 43.0121 Suspension and Debarment Investigation
- 45.0602 Applied Economics
- 50.0401 Design and Visual Communications, General
- 50.0402 Commercial and Advertising Art
- 50.0404 Industrial and Product Design
- 50.0409 Graphic Design
- 50.0411 Game and Interactive Media Design
- 50.0702 Fine/Studio Arts, General
- 50.0705 Drawing
- 50.0706 Intermedia/Multimedia
- 50.0708 Painting
- 52.0205 Operations Management and Supervision
- 52.0301 Accounting
- 52.0303 Auditing
- 52.0304 Accounting and Finance
- 52.0305 Accounting and Business/Management

- 52.0801 Finance, General
- 52.0804 Financial Planning and Services
- 52.0806 International Finance
- 52.0807 Investments and Securities
- 52.0808 Public Finance
- 52.0809 Credit Management
- 52.1001 Human Resources Management/Personnel Administration, General
- 52.1003 Organizational Behavior Studies
- 52.1401 Marketing/Marketing Management, General
- 52.1402 Marketing Research
- 52.1403 International Marketing
- 52.1501 Real Estate
- 52.1601 Taxation
- 52.1701 Insurance