Applying TOP Code Alignment Principles Throughout All Curriculum

Marie Boyd, Chaffey College

Eric Wada, Folsom Lake College

ASCCC Curriculum Institute
July 11-14, 2018 Riverside Convention Center

Goals for This Presentation

- Review the TOP Code Alignment Project and its benefits
- Review TOP, CIP, SOC and SAM codes and their uses
- Review possible uses of TOP Code alignment with transfer courses
- Review TOP Code Alignment in light of Guided Pathways

TOP Code Alignment Project - Definition

- A faculty-led process for examining the reporting codes (TOP, CIP, SOC, and SAM) that have been assigned to CTE courses and program awards.

- Joint project of the ASCCC, Chancellor's Office, Centers of Excellence and WestEd

Codes Refresher - TOP

- **TOP – Taxonomy of Programs**
  - Only used in California Community Colleges; first published in 1979
  - Originally based on the federal government's Higher Education General Information Survey (HEGIS) which was replaced in 1979-80 by the Classification of Instructional Programs (CIP)
  - Originally started out with 2-4 digits and had evolved to 4-6 digits
  - * added in 1983 to indicate CTE programs
  - Used in COCI
  - Two, Four, and Six Digits
  - Tied to State apportionment

  EXAMPLE →

*01	Agriculture
*0109	Horticulture
*0109.10	Landscape
*0109.20	Floriculture
*0109.30	Nursery

  - [TOP Directory](#) – Most recent revision: 2012; some new, unpublished codes.

- [CCCCO TOP/CIP Crosswalk](#)

TOP Codes and Curriculum

1. How are TOP codes assigned to courses and programs? To what extent are faculty involved?

2. What is the role of faculty in selecting CIP and SOC Codes at your college?

3. How can you ensure faculty primacy in selecting TOP Codes?

Codes Refresher – CIP

- ## CIP – Classification of Programs
  - The federal standard for postsecondary instructional program classification
  - Tied to federal financial aid
  - Used for Gainful Employment which is reported on your program's website
  - Used for tracking Baccalaureate Degrees
  - Used for Veterans' financial aid
  - Used for Accreditation
  - Not yet in COCI
    - EXAMPLE

2 – digit	14	Engineering
4 – digit	14.08	Civil Engineering
6 – digit	14.0804	Transportation & Highway Engineering

- [CIP Code Directory](#)
- [O*NET Crosswalk CIP/SOC](#)

Codes Refresher - SOC

- ## SOC – Standard Occupational Classification
  - Managed by the U.S. Dept. Labor, Bureau of Labor Statistics
  - Used by federal agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.
  - Used when calculating supply and demand and developing labor market projections for job openings.
  - Tracks program completers to make sure they end up in a recognized occupation (SOC Code)

EXAMPLE

11-1000 Top Executives 11-1010 Chief Executives
      11-1011 Chief Executives
11-1020 General and Operations Managers
      11-1021 General and Operations Managers

- ## 2018 Standard Occupational Classification

Codes Refresher – SAM (CB09)

1. Student Accountability Model (SAM) codes help identify pathways within CTE programs, such as which courses are introductory and which are the capstone courses.
2. SAM codes are used to determine Perkins and Strong Workforce Program funding and in the calculations for the Student Success Scorecard, CTE Outcomes Survey, and LaunchBoard.
3. SAM codes affect calculations about students who took ono-intro courses and skills-builders

    *(A) Apprenticeship (offered to apprentices only)

    *(B) Advanced Occupational

        A "B" course is offered in one specific occupational area only and clearly labels its taker as a major in this area. The course may be a "capstone course" that is taken as the last requirement for a career technical education program.

    *(C) Clearly Occupational (but not advanced)

        Courses will generally be taken by students in the middle stages of their programs and should be of difficulty level sufficient to detract "drop-ins."

    *(D) Possibly Occupational

        "D" courses are those taken by students in the beginning stages of their occupational programs. The "D" priority can also be used for service (or survey) courses for other occupational Programs.

    (E) Non-Occupational

        These courses are non-occupational.

Which ones only qualify for Perkins?

SAM Codes and Perkins Funding

1. More Information at CCCCO Workforce and Economic Development.
   http://extranet.cccco.edu/Divisions/WorkforceandEconDev/CareerEducationPractices/PerkinsIV/OnlineTrainingTutorials/Accountability.aspx

2. But as an example, a "concentrator" is defined as
   a. "Students enrolling during a cohort year (most recent three years) and successfully completing 12 units in Career Technical Education in a two-digit TOP of which one course was a Sam A-C is then counted within the system and considered a **concentrator**."

3. The number of concentrators is a key comparison in Perkins accountability reporting. The number of CTE concentrators who complete, persist, and leave are reported as ratios.
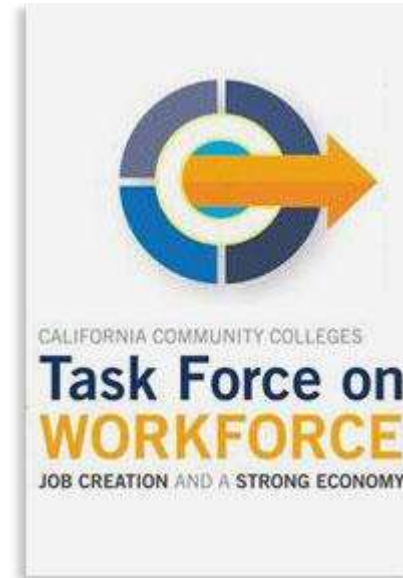
TOP Code Alignment Project - Purpose

- To ensure that these codes appropriately match the content of the curriculum.
- Elements of the process below can be used for non-CTE programs.

TOP Code Alignment Project - Benefits

- More money for your college

- More aid available for your students

- Information to support cross-college alignment clear documentation on target occupations and more specific information on the skills included in the program, which can support articulation.

TOP Code Alignment Project - Benefits

- Better statewide/national data

- Less work for your college*

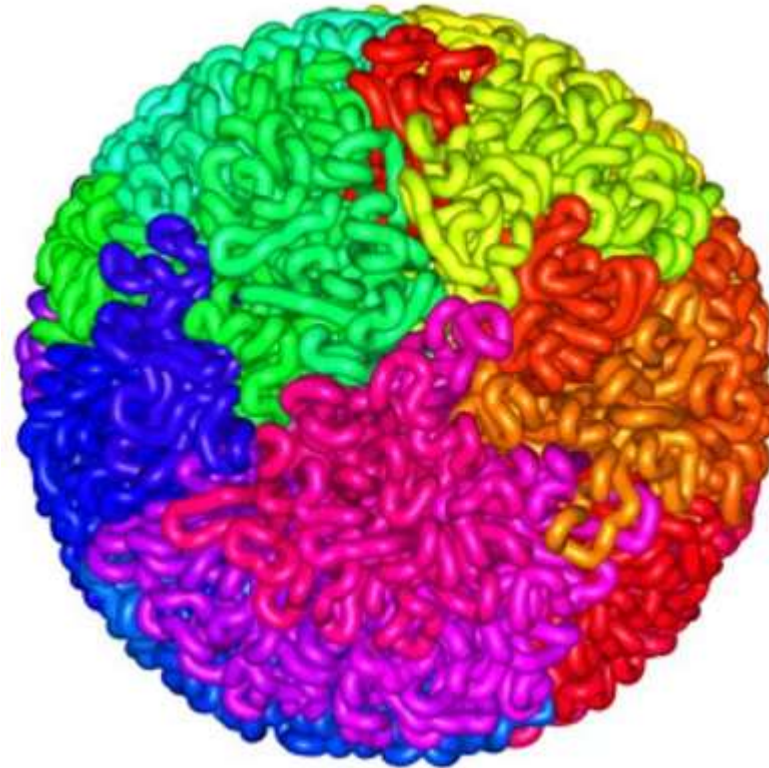- Access to experts*

- Ensure data integrity

*unique to CTE TOP code project

The Process

A. Document Codes

B. Code Alignment Workshop

C. Final Review

A. Document Codes

- (Kick-off call between TOP Code Alignment team and College team. It is recommended that the Curriculum chair and/or Curriculum Specialist be included on this call.) This could be an initial call for faculty buy-in.
- College Team selects (CTE) curriculum to be examined during the TOP Code Alignment process – both courses and awards
- After this selection has occurred, (WestEd and Centers of Excellence) compile a Code binder that lists the following:
  - All possible codes and their descriptions
  - Codes currently used by the College
  - Codes used by other Colleges
  - Code crosswalks
  - Cross-over courses
- Jobs across similar awards
- The next slide shows a method for documenting existing codes.

A. Gathering Information on Codes

- This task is normally done by the college researcher (with support from the CTE Data Unlocked Expert.)
- The college can (use CTE Data Unlocked funds to) pay a faculty member or consultant to fill it out.

ASCCC Curriculum Institute
July 11-14, 2018 Riverside Convention Center

Program Code Map

Program Area: [please fill in name of program area]

Award Codes

	Award 1	Award 2	Award 3	Award 4
Certificate or Degree Name				
Program Control Number				
SOC: Program Approval				
SOC: Gainful Employment				
CIP: Gainful Employment				
CIP: Financial Aid				
CIP: Veterans Program				
CIP: Accreditation				
TOP Code				
Name of any related third-party certifications				

Required CTE Course Codes: [please fill in name of Award 1]

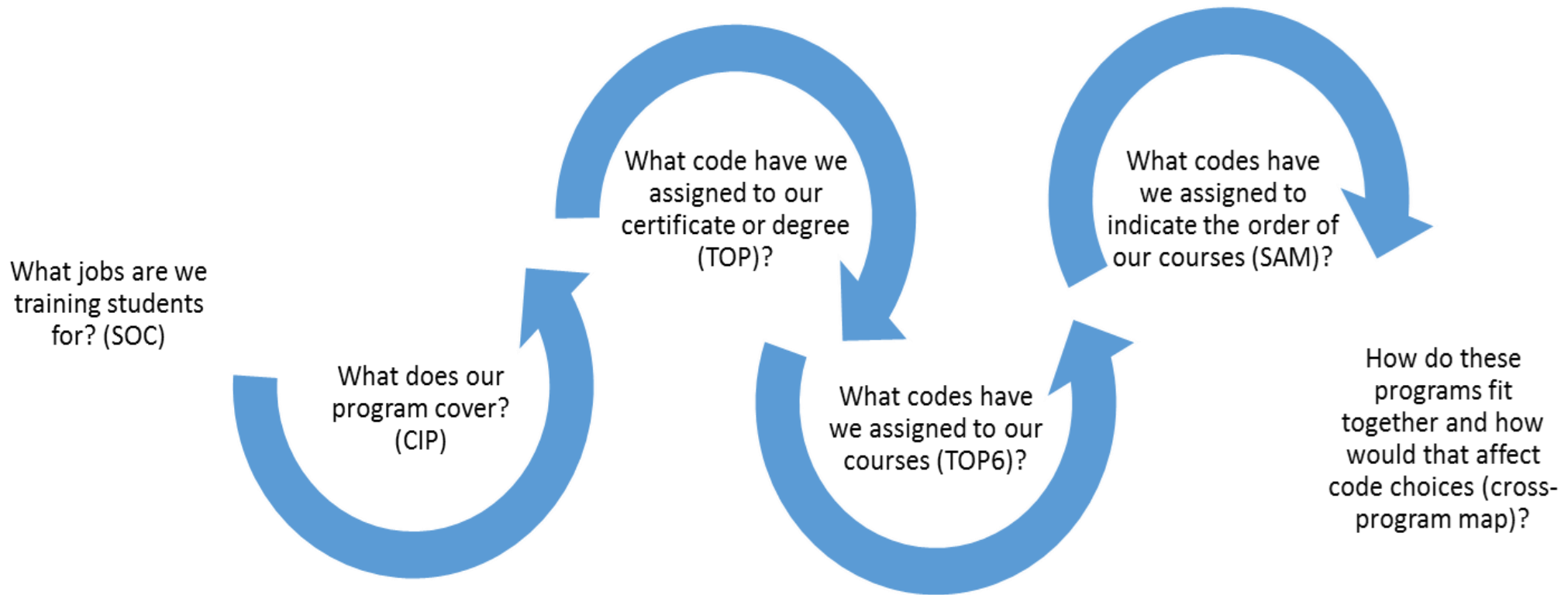|	Course Name	Course Control Number	Course TOP Code	Course SAM Code
Course 1				
Course 2				
Course 3				
Course 4				
Course 5				
Course 6				
Course 7				
Course 8				

B. Code Alignment Workshop

- Face to face meeting where faculty review the Code binders that list possible codes and their descriptors, and determine which codes best describe the program/award(s).

- Meeting is facilitated by the TOP Code Alignment team assigned to the College. This team includes an ASCCC-appointed curriculum expert, and a Center of Excellence Labor Market Information expert.

- Discipline faculty will come for a 1-2 hour segment to work with the team on their program.

- Curriculum committee chair/member should plan on attending the entire day.

B. Face to Face Meeting: Alignment Discussions

1. Start by discussing what jobs the students are training for (SOC)
2. Then discuss what subject areas/content the program covers (CIP)
3. Move on to a review of the currently assigned TOP code
4. Then look at the codes assigned to the courses in that award (TOP6)
5. Check the SAM codes for sequencing of courses in the award
6. Lastly, how to the programs fit together. How do the codes crosswalk with each other? Does anything that has been discovered necessitate a change?

B. A Visual of this Discussion

What jobs are we training students for? (SOC)

What does our program cover? (CIP)

What code have we assigned to our certificate or degree (TOP)?

What codes have we assigned to our courses (TOP6)?

What codes have we assigned to indicate the order of our courses (SAM)?

How do these programs fit together and how would that affect code choices (cross-program map)?

ASCCC Curriculum Institute
July 11-14, 2018 Riverside Convention Center

1. Discussing what jobs the students are training for (SOC)

- Typically selected as part of the program planning/approval process.
- Select no more than 3-5 occupations per award.
- Select 6-digit SOC codes; stay away from 8-digit codes (there is no labor market data for them).
- Each occupation is assigned a "typical" entry-level education and "typical" on-the-job training. Ask: Will my students be qualified for employment in this occupation right after they complete my program?
- The faculty determined that its curriculum was only focused on the first of the three possible occupations. The other jobs are the focus of other accounting certificates.

Certificate of Performance: Accounting Bookkeeping

What jobs are you training students for?

Federal Occupational Codes: Standard Occupational Code (SOC)

1) **Bookkeeping, Accounting, and Auditing Clerks (SOC 43-3031.00)**

Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.

Sample of reported job titles: Account Clerk, Account Receivable Clerk, Accounting Assistant, Accounting Associate, Accounting Clerk, Accounts Payable Clerk, Accounts Payable Specialist, Accounts Payables Clerk, Accounts Receivable Clerk, Bookkeeper

2) **Payroll and Timekeeping Clerks (SOC 43-3051.00)**

Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks.

Sample of reported job titles: Accounting Technician, Human Resources Assistant (HR Assistant), Payroll Administrator, Payroll Assistant, Payroll Clerk, Payroll Coordinator, Payroll Manager, Payroll Representative, Payroll Specialist, Payroll Technician

3) **Tax Preparers (SOC 13-2082.00)**

Prepare tax returns for individuals or small businesses.

Sample of reported job titles: Certified Income Tax Preparer (CTP), Corporate Tax Preparer, Enrolled Agent, Income Tax Preparer, Master Tax Advisor, Tax Advisor, Tax Associate, Tax Consultant, Tax Preparer, Tax Specialist

SOC codes are used in demand and supply calculations

Exhibit 4: 5-Year Projected Occupation Data, Architecture & Engineering Occupations

SOC	Description	2015 Jobs	2020 Jobs	5-Yr Change	5-Yr % Change	Annual Replacements	Annual Openings
17-3023	Electrical and Electronics Engineering Technicians	2,666	2,687	21	1%	67	71
17-3029	Engineering Technicians, Except Drafters, All Other	1,512	1,606	94	6%	38	57
17-3011	Architectural and Civil Drafters	1,469	1,566	97	7%	19	38
17-3027	Mechanical Engineering Technicians	764	834	70	9%	20	34
17-3022	Civil Engineering Technicians	638	710	72	11%	17	31
17-3026	Industrial Engineering Technicians	716	757	41	6%	18	27
17-3012	Electrical and Electronics Drafters	855	898	43	5%	11	19
17-3013	Mechanical Drafters	528	568	40	8%	7	15
17-3031	Surveying and Mapping Technicians	407	444	37	9%	5	12
17-3024	Electro-Mechanical Technicians	299	316	17	6%	8	11
17-3021	Aerospace Engineering and Operations Technicians	207	234	27	13%	5	
17-3025	Environmental Engineering Technicians	165	191	26	16%	4	
17-3019	Drafters, All Other	158	170	12	8%	2	
	Total	**10,383**	**10,982**	**599**	**6%**	**222**	

Exhibit 6: Education and Training Requirements, Architecture & Engineering Occupations

SOC	Occupations	Typical Entry Level Education	Typical On-The-Job Training	% of Community College Award Holders or Some Postsecondary Coursework
17-3011	Architectural and Civil Drafters	Associate degree	None	62%
17-3012	Electrical and Electronics Drafters	Associate degree	None	62%
17-3013	Mechanical Drafters	Associate degree	None	62%
17-3019	Drafters, All Other	Associate degree	None	62%
17-3021	Aerospace Engineering and Operations Technicians	Associate degree	None	55%
17-3022	Civil Engineering Technicians	Associate degree	None	55%
17-3023	Electrical and Electronics Engineering Technicians	Associate degree	None	55%
17-3024	Electro-Mechanical Technicians	Associate degree	None	55%
17-3025	Environmental Engineering Technicians	Associate degree	None	55%

ASCCC Curriculum Institute
July 11-14, 2018 Riverside Convention Center

2. Discussing what subject areas/content the program covers (CIP)

- Selected by various college staff for accreditation, gainful employment reporting, financial aid, and veterans programs, sometimes using a crosswalk posted by the Chancellor's Office.
- Select only 1 CIP per award
- Look for the best fit based on CIP description and what is taught in your program.
- Choose how many digits in the CIP code, based on how broad or specific the program is.
- Remember that CIP sometimes provides an opportunity for a more specific code.
- The faculty determined the accounting program is inadvertently being reported as a retail management program to federal agencies.

What do students learn in your program?

Federal Program Codes: Classification of Instructional Program (CIP)

Crosswalk	Gainful Employment	Financial Aid	Veterans Program	Accreditation	Recommended Change
52.0302 52.1601	52.0212	52.0212	No data from the college	No data from the college	

1) **Retail Management (CIP 52.0212)**

A program that prepares individuals to manage the operations of a wide variety of retail businesses, including department stores; independent and chain stores; fashion, food and beverage, and pharmaceutical establishments; and online retail businesses. Includes instruction in retail management, merchandise management, customer service management, marketing, organizational behavior, accounting, finance, business law, and personnel management.

2) **Accounting Technology/Technician and Bookkeeping (CIP 52.0302)**

A program that prepares individuals to provide technical administrative support to professional accountants and other financial management personnel. Includes instruction in posting transactions to accounts, record-keeping systems, accounting software operation, and general accounting principles and practices.

3) **Taxation (CIP 52.1601)**

A program that prepares individuals to provide tax advice and management services to individuals and corporations. Includes instruction in tax law and regulations, tax record systems, individual and corporate income taxation, tax planning, partnerships and fiduciary relationships, estates and trusts, property depreciation, capital gains and losses, dispositions, transfers, liquidity, valuation, and applications to specific tax problems.

3. Review the currently assigned TOP code

- Usually part of the curriculum approval process
- Select the California Program Code (TOP)
- Select only 1 TOP Code per award
- Some TOP codes and/or delimitation could be out of date; find the best fit within the existing structure.
- Through the Code Alignment Project, we will document common programs for which there is no TOP code.
- The faculty affirmed that the correct state code is being used for its accounting certificate.

What do students learn in each course?

State Program Codes for <u>Courses</u>: Taxonomy of Program (TOP)

Crosswalk	Current	Recommended Change
0506.50	0502.00	

1) Accounting (TOP Code: 0502.00)

   Procedures to systematize information about transactions and activities into accounts and quantitative reports to verify accuracy of data by applying accounting, internal reporting, and decision making principles. Includes accounting and financial reporting that assists in making internal management decisions.

2) Retail Store Operations and Management (TOP 0506.50)

   Principles and methods of retail store operations and management, including department stores and supermarkets.

4. Examine the codes assigned to the courses in that award (TOP6)

- Select the California Course codes (TOP)
- The faculty found that while the course codes regarding content were correct, the sequence of courses was incorrect.

What do students learn in each course?

State Program Codes for Courses: Taxonomy of Program (TOP) Codes and SAM Codes

Course Name/Number	Control Number	TOP Code	Recommended Change
SAM A			
SAM B			
Computer Accounting Applications	CCC000348864	0502.00	
SAM C			
Basic Accounting	CCC000358554	0502.00	
Financial Accounting	CCC000369648	0502.00	
SAM D			
Business Mathematics	CCC000374538	0506.00	
Intermediate Microsoft Excel	CCC000507954	0514.00	
SAM E			

1) Accounting (TOP Code: 0502.00)

   Procedures to systematize information about transactions and activities into accounts and quantitative reports to verify accuracy of data by applying accounting, internal reporting, and decision making principles. Includes accounting and financial reporting that assists in making internal management decisions.

2) Business Management (TOP Code: 0506.00)

   Planning, organizing, directing, and controlling business operations. Includes various theories, tools, and practical applications used to maintain business sustainability through the management of capital, financial, and human resources.

3) Office Technology/Office Computer Applications (TOP Code: 0514.00)

   Recording and disseminating of information, by manual and/or electronic means, including administrative office practices (keyboarding, computer literacy/applications, internet usage, e-mailing, scheduling, etc.), global concepts, and office management skills (problem solving, critical thinking, and interpersonal relations).

5. Check the SAM codes for sequencing of courses in the award

- Usually SAM codes are assigned during the curriculum approval process
- Validating SAM Codes
- Arrange courses in their logical sequence.
- Pay attention to which courses are marked as introductory versus further in the sequence, particularly if many students take intro courses without intending to major in the program.

Dueling TOP Codes

- *0514   Office Technology
- *0702.10   Software Application
- *0614   Digital Media
- *07XX   Computer Technology
- *0614.60   Computer Graphics and Digital Imagery

****

- *0709.10   E-Commerce
- *0501   Business and Commerce

****

- 0801   Education
- *1305.50   The School Age Child
- 4901.20   Liberal Studies (Elementary Teacher ADT)
- 4930.60/.62   Elementary and Secondary Education

6. How do the programs fit together. How do the codes crosswalk with each other? Does anything that has been discovered necessitate a change?

Things to Know BEFORE Changing Codes: I.e. How do codes get changed?

1. **TOP - Awards**: codes must be submitted to the Chancellor's Office for a review before they can be changed in the Curriculum Inventory.
2. **TOP - Courses**: codes can be changed in the new Curriculum Inventory, without review by the Chancellor's Office.
3. **SAM**: codes can be changed in your college's local data system and in COCI, without review by the Chancellor's Office.

C. Final Review

- College will review proposed changes, determine which changes to make and move forward with those changes through your local and state processes.

- Your College will share what you decided with the CTE data Unlocked team to help validate code crosswalks.

- College can continue the process with additional CTE programs/awards.

CTE and Non CTE (Transfer) Curriculum

- Is there a reason to extend this process to transfer-level courses?
- Stackable local certificates
  - Streamlined approval forthcoming from CCCCO
  - Outcomes-based funding
- Link to program review
  - Program currency and relevance
  - Designing innovative curriculum to meet other student needs.
  - Integrating transfer-level courses into CTE curriculum

TOP Code Alignment and Guided Pathways

- How does this process link into Guided Pathways?

FOUR PILLARS OF GUIDED PATHWAYS

CLARIFY THE PATH · ENTER THE PATH · STAY ON THE PATH · ENSURE LEARNING

Code Alignment and Guided Pathways

- Leveling courses
- Clear course sequencing and scheduling for students
  - How does your college plan for scheduling sequential courses and capstone courses?
  - How are these plans advertised to students?
- Employment guidance for students who are uncertain
  - How does your college advertise career guidance, and is this a part of your curriculum process?
- Increase awareness of majors that students would not have considered
  - Many students will not get a job in the field in which they majored

For More Information on TOP Code Alignment

http://doingwhatmatters.cccco.edu/LaunchBoard/CodeAlignment.aspx

Questions?

Marie Boyd, Curriculum Chair, Chaffey College marie.boyd@chaffey.edu

Eric Wada, ASCCC Curriculum Committee, Folsom Lake College
Eric.Wada@flc.losrios.edu