

SOC, CIP, TOP, SAM:

Re-imagining Curriculum in Three-letter Words

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There's a code for that!

- ▶ Program
 - ▶ What jobs are completers prepared to get?
 - ▶ What subject does the program fall under?
- ▶ Course
 - ▶ What subject does the *course* fall under?
 - ▶ Is it a CTE course?
 - ▶ Where in the program sequence does it fall?

Who are the best people to answer these questions?

Accurate coding benefits students

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- ▶ Perkins, Strong Workforce
- ▶ Federal financial aid, veterans benefits
- ▶ Salary Surfer, Here to Career, Career Coach
- ▶ Data Mart, Scorecard, CTE Outcomes Survey, LaunchBoard

Do you speak code?

- ▶ SOC: **S**tandard **O**ccupational **C**lassification codes
- ▶ CIP: **C**lassification of **I**nstructional **P**rograms
- ▶ TOP: **T**axonomy **o**f **P**rograms
- ▶ SAM: **S**tandard **A**ccountability **M**odel

How do you wield these three-letter acronyms to better serve your students?

Start at the end

- ▶ What is the primary goal of your program?
 - ▶ To prepare students for transfer
 - ▶ To prepare students for work
 - ▶ To prepare students for a transfer or CTE program
 - ▶ Other

What jobs are completers prepared to get...

(Assuming no prior or additional coursework, training, or experience?)

- ▶ Are there more than one?
- ▶ How many is too many?
 - ▶ Breadth vs. depth
 - ▶ Transfer patterns
 - ▶ CTE advisory committee recommendations
- ▶ Ultimately, the discipline experts know best.

Standard Occupational Classification

Example:

15-0000	Computer and Mathematical Occupations
15-1100	Computer Occupations
15-1120	Computer and Information Analysts
15-1121	Computer Systems Analysts

- ▶ US **B**ureau of **L**abor **S**tatistics occupational categories
- ▶ Typical entry-level education required for employment
- ▶ Projected job openings (LMI: **L**abor **M**arket **I**nformation)
- ▶ <https://www.bls.gov/soc/>

Typical entry-level education required

Example: SOC codes 17-3000 (Source: Centers of Excellence)

**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%
17-3026	Industrial Engineering Technicians	Associate degree	None	55%

Projected job openings

Example: SOC codes 17-3000 (Source: Centers of Excellence)

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	11
17-3025	Environmental Engineering Technicians	165	191	26	16%	4	10
17-3019	Drafters, All Other	158	170	12	8%	2	4
	Total	10,383	10,982	599	6%	222	341

Who can help find these statistics?

- ▶ **COE: Centers of Excellence** (<http://www.coeccc.net/>)
- ▶ **DWM: Doing What Matters**
(<http://doingwhatmatters.cccco.edu/>)
- ▶ **EDD: California Employment Development Dept**
(<https://www.edd.ca.gov/>)
- ▶ **MIS: Management Information Systems DataMart**
(<https://datamart.cccco.edu/datamart.aspx>)
- ▶ **BLS: US Bureau of Labor Statistics**
(<https://www.bls.gov/>)
- ▶ Your college researcher

What subject does the program fall under?

- ▶ Many options
 - ▶ On the dart board: use a cross-walk*
 - ▶ Hit the bull's-eye: ask a discipline expert
- ▶ Only the discipline experts know which is best.

*More on this later

Classification of Instructional Programs

Example:

50.0000	Visual and Performing Arts
50.0400	Design and Applied Arts
50.0402	Commercial and Advertising Art

- ▶ US Department of Education postsecondary instruction programs
- ▶ Eligibility for financial aid, veterans benefits
- ▶ Gainful employment and accreditation reporting
- ▶ Like California's "TOP" code,* but more specific and more frequently updated
- ▶ <https://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>

*More later

Example: the “ECAR”

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- ▶ **E**ligibility and **C**ertification **A**pproval **R**eport
(Sorry, that’s a *four*-letter acronym.)
- ▶ US Department of Education (DOE)
 - ▶ Eligibility for financial aid
 - ▶ **SULA**: **S**ubsidized **U**sage **L**imit **A**pplies
(Another four-letter acronym!)
 - ▶ 150% limit on financial aid
 - ▶ Based on program length (in weeks)
 - ▶ <https://ifap.ed.gov/150PercentDirectSubsidizedLoanLimitInfo/FAQ.html>

GE (no, not *that* GE)

- ▶ **G**ainful **e**mployment report (usually on the college website)
 - ▶ Cost of program
 - ▶ Financial aid and other benefits available
 - ▶ Length of program
 - ▶ Prospective jobs available at the end
 - ▶ Job placement rates
 - ▶ Etc.
- ▶ Who can help with ECAR and GE: ask your **F**inancial **A**id **O**fficer

Gainful employment sample:

(Source: a college GE website)

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Gainful Employment

Program & Certificate Listing

Real Estate

Program Level: Undergraduate certificate

Program Length: 2 years

COST

Q. How much will this program cost me?*

- A. Tuition and fees: \$1,207**
Books and supplies: \$1,746
On-campus room & board: *not offered*

[What other costs are there for this program?](#)

For further program cost information [click here](#).

* The amounts shown above include costs for the entire program, assuming normal time to completion. Note that this information is subject to change.

FINANCING

Q. What financing options are available to help me pay for this program?

- A. Financing for this program may be available through grants, scholarships, loans (federal and private) and institutional financing plans. The median amount of debt for program graduates is shown below:**

Federal loans: *
Private education loans: *
Institutional financing plan: *

* There were fewer than 10 graduates in this program. Median

SUCCESS

Q. How long will it take me to complete this program?

- A. The program is designed to take 2 years to complete. Of those that completed the program in 2014-2015, *% finished in 2 years.**

* Fewer than 10 students completed this program in 2014-15. The number who finished within the normal time has been withheld to preserve the confidentiality of the students.

Q. What are my chances of getting a job when I graduate?

- A. The job placement rate for students who completed this program is *%.**

* This institution is not currently required to calculate a job placement rate for program completers.

[Click here for more information on jobs related to this program.](#)

Taxonomy of Programs

Example:

1200.00	Health
1230.00	Nursing
1230.30	Certified Nursing Assistant

- State of California (only)
- Identifies the primary subject (of both programs and courses)
- Student Success Scorecard, Data Mart, Salary Surfer, LaunchBoard, etc.
- http://extranet.cccco.edu/Portals/1/AA/Credit/2013Files/TOPmanual6_2009_09corrected_12.5.13.pdf

TOP data example: (Source: Launchboard)

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Program Snapshot Reports

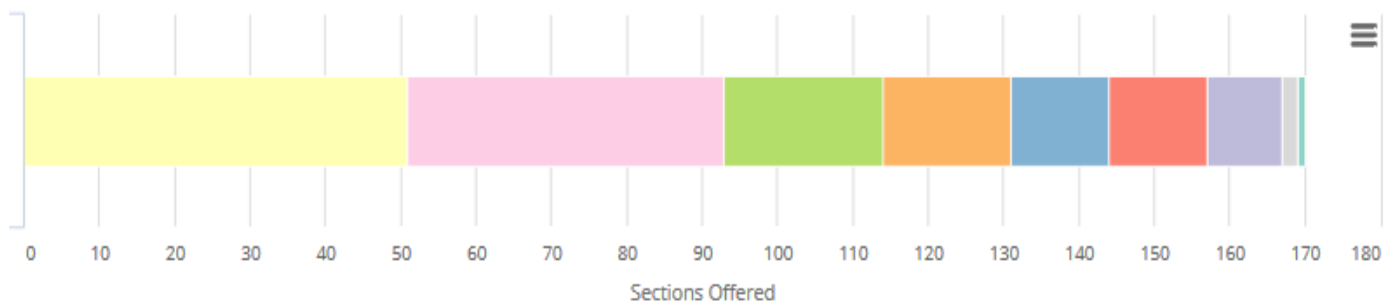
MACROREGION - Bay Area || Biotechnology and Biomedical Technology (0430) || 2014-2015 [\(Change Filter?\)](#)

Students

Where are students taking courses in the region?

1,040 students took courses at 9 colleges.

Courses Students FTES



City College of San Francisco Ohlone College Laney College Merritt College Solano College
Berkeley City College Contra Costa College Skyline College Monterey Peninsula College

Cal-PASS Plus

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Exercise: *Is the following program coded well?*

Exploring Business

Career Certificate (9 units)

BUS 100 Intro to Business (3)

BUS 101 Intro to Management (3)

BUS 102 Intro to Sales (3)

Current coding (using the TOP-CIP-SOC cross-walk*)

- ▶ TOP: 0501.00 Business and Commerce
- ▶ CIP: 52.0101 Business/Commerce, General
- ▶ SOC: 11-1011 **Chief Executives**

*More on this in the next slide

TOP-CIP-SOC crosswalk

(Source: Centers of Excellence)

California Occupation to Educational Program Crosswalk					
TOP to CIP to SOC					
top6	TOP6_Title	CIP2000	CIP2000_Title	SOC CODE	SOC TITLE
050100	Business and Commerce,	520101	Business/Commerce, General	111011	Chief Executives
				111021	General and Operations Managers
				112022	Sales Managers
				113011	Administrative Services Managers
				113051	Industrial Production Managers
				113071	Transportation, Storage, and Distribution Managers
				119021	Construction Managers
				119151	Social and Community Service Managers
				119199	Managers, All Other
				131051	Cost Estimators
				131111	Management Analysts
				251011	Business Teachers, Postsecondary
050200	Accounting	520302	Accounting Technology	132011	Accountants and Auditors

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Would this be more accurate?

Exploring Business

Career Certificate (9 units)

BUS 100 Intro to Business (3)

BUS 101 Intro to Management (3)

BUS 102 Intro to Sales (3)

▶ Re-coding

▶ **Sales and Related Workers** (SOC 41-9099)

▶ **Retail Sales** (SOC 41-2031)

▶ And there are probably several more options

Dart-board analogy (again)

- ▶ To hit the dart board use a cross-walk
- ▶ To hit the bull's-eye ask a discipline expert

Courses

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- ▶ What subject does the program fall under?
 - ▶ TOP
- ▶ Where in the program sequence does it fall?
 - ▶ SAM

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Standard Accountability Model

- A: Apprenticeship*
- B: Advanced Occupational
- C: Clearly Occupational
- D: Possibly Occupational
- E: Not Occupational

*Only courses approved by the [Division of Apprenticeship Standards](#) (DAS) may be coded A.

- Identifies CTE vs. non-CTE, and CTE course sequencing
- Used to determine Perkins and Strong Workforce Program funding eligibility
 - (Only SAM A, B, and C count)
- Used in calculations for the Student Success Scorecard, CTE Outcomes Survey, and LaunchBoard

Statistical snapshot: (Source: Launchboard)

Program Snapshot Data Tables

What level of program information would you like?

Program Level:

Sub-Disciplines (TOP4)

Credit Status:

Both For and Non-Credit

Which programs would you like to view?

College or Region:

MACROREGION - Bay Area

Program or Sector:

Information Technology, General (070...

Comparison

Historic

Academic Year

2014-2015

View

Export

Program Size

Student Characteristics

Milestones

Success

Employment

Regional Labor Market Information

Course-Taking

Among students who took one or more courses

		Selected Year	
Students Who Took Non-Introductory Courses		45%	Trend
		Selected Year	
Skills-Builder Students		6%	Trend

SAM codes, prerequisites, and pathways

- ▶ How do you decide which courses are clearly occupational vs. advanced occupation?
- ▶ How might SAM codes and prerequisite sequences help define program maps (pathways) and educational plans?

Where do I find my codes?

- ▶ TOP and SAM
 - ▶ COR: **C**ourse **O**utline of **R**ecord
 - ▶ COCI: **C**hancellor's **O**fficer **C**urriculum **I**nventory
- ▶ SOC
 - ▶ SIS: **S**tudent **I**nformation **S**ystem
 - ▶ Launchboard
- ▶ CIP
 - ▶ ECAR (Eligibility Certification and Approval Report)
 - ▶ SIS
- ▶ Elsewhere: ask your researcher and financial aid officer

How do I change them?

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- ▶ SAM and TOP
 - ▶ Curriculum Committee/Senate
 - ▶ Curriculum management system, SIS
 - ▶ COCI (currently a “substantial change”)
- ▶ CIP
 - ▶ Curriculum Committee/Senate
 - ▶ Curriculum management system, SIS?
 - ▶ Coordinate with your financial aid officer and researcher
- ▶ SOC
 - ▶ Curriculum Committee/Senate
 - ▶ Curriculum management system, SIS?
 - ▶ Coordinate with your researcher and CTE Dean

Other places to update them

- ▶ Launchboard
- ▶ IPEDS: **I**ntegrated **P**ostsecondary **E**ducation **D**ata **S**ystem
 - ▶ US Dept. of Ed. surveys on institutions receiving federal financial aid conducted by the **N**ational **C**enter for **E**ducation **S**tatistics (NCES)
- ▶ Where else?

One more link

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Code Alignment Project (no, not *that* CAP)

- ▶ Information on codes and where they come from
- ▶ Recommended code alignment process
- ▶ What to know before changing a code

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