



# NAVIGATING PATHWAYS

CCSF MAPPING SUMMIT



**MAPPING**  
CLP | Career  
Ladders  
Project

# Our Path Tonight

- Welcome and Introductions
- Pathway faculty and staff, and guests!
- Mapping our Pathways

Why? How? Now!

- Breakouts: RapidMapping and Action Planning
- Next Steps, Process Check, and Closing



CLP Career Ladders Project *Fostering Educational and Career Advancement for Californians*

Home Areas of Focus Projects Research & Resources CLP Library Communities of Practice About Us

**OUR WORK**

The Career Ladders Project (CLP) aims to improve educational and career outcomes for Californians. We foster these opportunities through research, policy reforms and strategic assistance to community colleges—and their K16 education, workforce and community partners.

**NEWS**

**Webinar Series # 4: Quantitative Leap How Math Policies Can Support Transitions To and Through College**  
 October, 2016  
 Quantitative Leap: Webinar 4 Webinar 4 - Seizing Twelfth Grade to Improve Math Readiness: Senior-Year Transition Courses October 27, 11:00am - 12:15pm Pacific (2pm R...)

Read More News

Stay updated with CLP, sign up for our newsletter here.

**OUR STORIES**

**VIDEOS**

**Skyline High School's Computer Academy visits Berkeley City College**  
 May, 2015

**GTC Snapshot – Green Transportation C...**

Videos can capture student voice and perspective, and serve as professional development tools. CLP utilizes video to document and disseminate information about innovative programs and effective practices.

Career Ladders Project fosters educational and career advancement through **research, policy initiatives and direct assistance** to community colleges and their partners.

Honored to have worked with CCSF, including deep work with faculty and staff on, researching institutional challenges to completion, CCSF's success with CTL Bridge to Biosciences, and SF CCPT

## Our CLP Team



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## Our Team Today

- Luis Chavez
- Lindsay Anglin
- Brook Sinclair
- Dan Figueroa
- Mike Williamson
- Roy Robles
- Peter Simon
- Olivia Herriford
- Tomoko Ha
- Maeve Katherine Bergman



# CTE Mapping Summit

March 7, 2017





## Program Selection

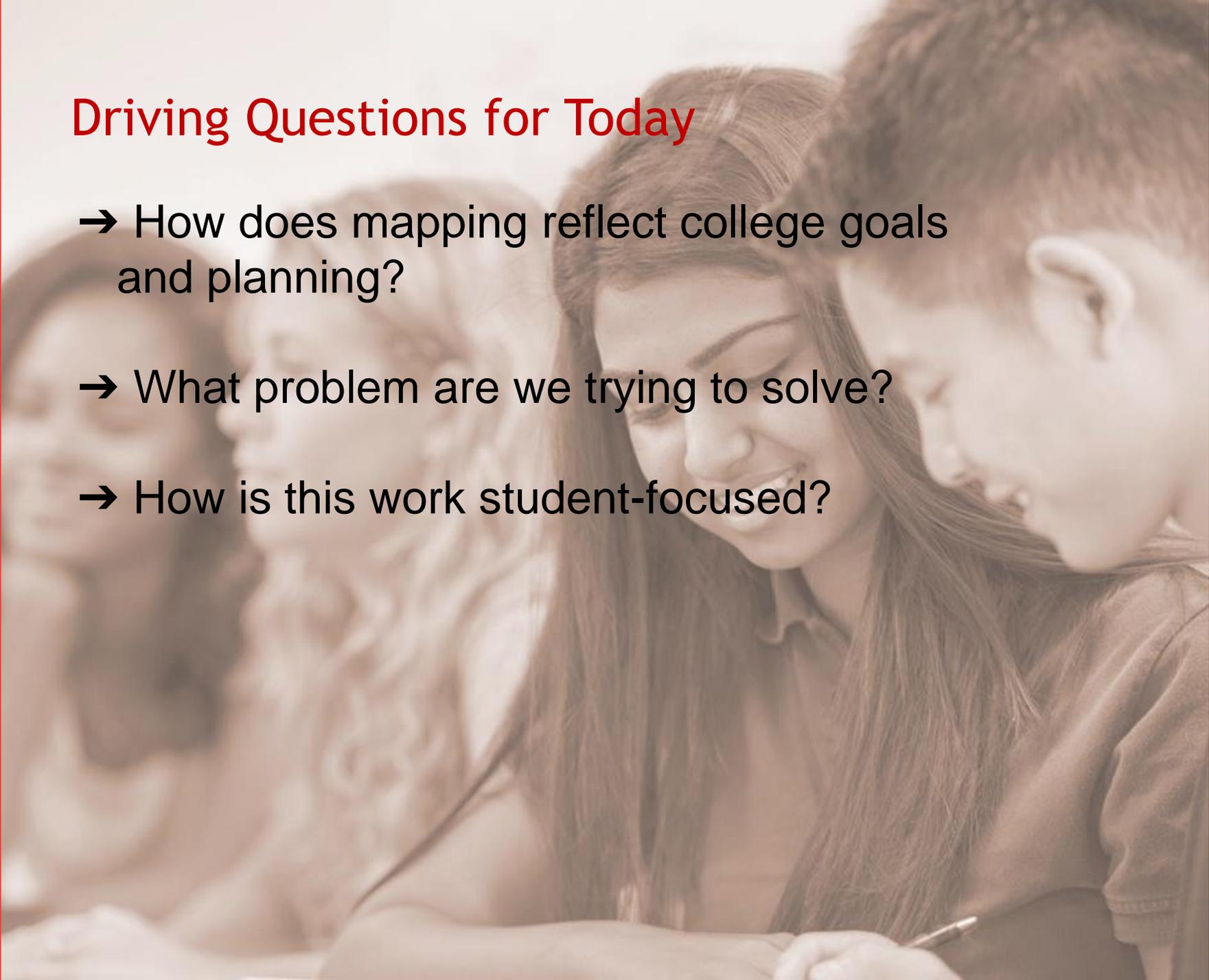
- ✓ Faculty Interest and Inquiry
- ✓ Driving Reasons:
  - ✓ Alignment and Partnerships;
  - ✓ Innovative Pilots and Grants;
  - ✓ CTE Accountability and Metrics;





## Driving Questions for Today

- How does mapping reflect college goals and planning?
- What problem are we trying to solve?
- How is this work student-focused?





## CCSF Education Master Plan Goals

**Goal 1: Advance student achievement** in meeting educational goals;

**Goal 2: Transform and sustain** College infrastructure;

**Goal 3: Provide new and expanded opportunities** for organizational development and effective innovation;





## What problem are we trying to solve?



### From

- Disproportionate success rates;
- Students take no more than 1-2 CTE courses;
- Students wander in college, extending their time-to-degree.
- Other?

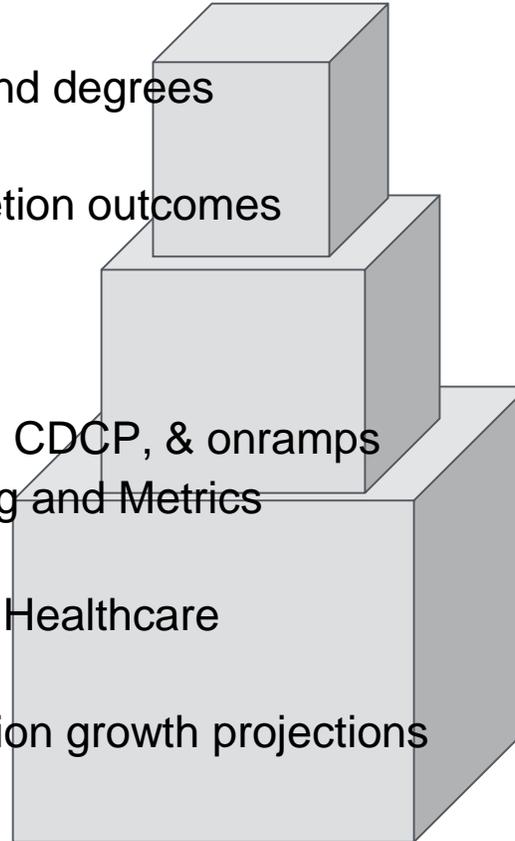
### To

- Course and program success is not predictable by race, ethnicity, or gender;
- More students advance beyond beginning classes to advanced CTE courses;
- Students declare a major early and follow a guided path to completion with proactive advisement.



## Connecting Many Efforts

- ❑ Metro Pathways– on-ramps to certificates and degrees
- ❑ Leading from the Middle Projects
- ❑ SSSP – intentional guidance toward completion outcomes
- ❑ Equity – increasing success measures
- ❑ Basic Skills – accelerated dev education
- ❑ CCPT – alignment with High School
- ❑ AEBG – alignment with noncredit programs, CDCP, & onramps
- ❑ SWP (Strong Workforce Program) – Funding and Metrics
- ❑ Bridge to Success
- ❑ New Grants in Apprenticeship, Technology, Healthcare
- ❑ Occupational Clusters
- ❑ Favorable unemployment rates and population growth projections





# Insights from College & Community Stakeholders

*Improving CCSF Access, Engagement, and Completion*

February 2017

Qualitative Research Study Commissioned by CCSF  
Completed by the Research and Planning Group (RPG)



## Who did we ask?

22 Community Based Organization leaders/staff;  
12 Community Adults;  
8 CCSF Faculty (2 counselors, 6 instructors).

## What did we ask?

- What works to connect adults to CCSF?
- What is the entry-to-CCSF experience?
- What further actions can CCSF take to help undecided students set and achieve an educational goal?
- How can we increase completion and success for our students?



## What did we learn?

- Share information/ message the value of a CCSF education in an ongoing way;
- Produce planning tools and program maps that show the way to certificates, degrees, and jobs;
- Design programs for undecided students who are seeking more career guidance;
- Structure more information exchange between counselors and teachers;
- Engage CBOs as advocates;
- Involve and design CBO support even as adults become students i.e. continuous non-academic support;
- Learn from the competition i.e. there are other colleges, both public and private, who are perceived as more efficient in getting students in and out to their goal.







# Lara, welcome to CCSF!

1. What is your career goal?
2. Here is how you get there...
3. When do you want to begin to work in your field?



# Introductions

## **Pathway Team Leads:**

- Please share your name, position, pathway, and introduce your team

## **Pathway visitors:**

- Please select a pathway team to join for the entire the evening, and introduce yourself



# Outcomes for Today

1. Understand the research based strategies for developing pathways
2. Understand how pathway mapping and programs of study can support student success and equity
3. Review and complete draft Pathway Maps
4. Identify priority areas for development
5. Develop draft action plan/next steps



# Why Pathways?

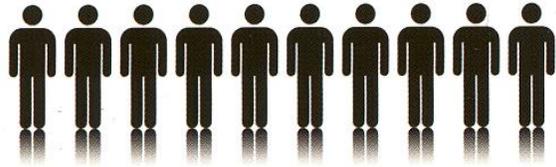


For Our  
Students:



© Career Ladders Project

# We are Losing Our Students



Out Of Ten 9th Graders



3 Drop Out



3 Work After Graduation



4 Go To College



Out Of 4 College Students



2 Drop Out



1 Under Employed

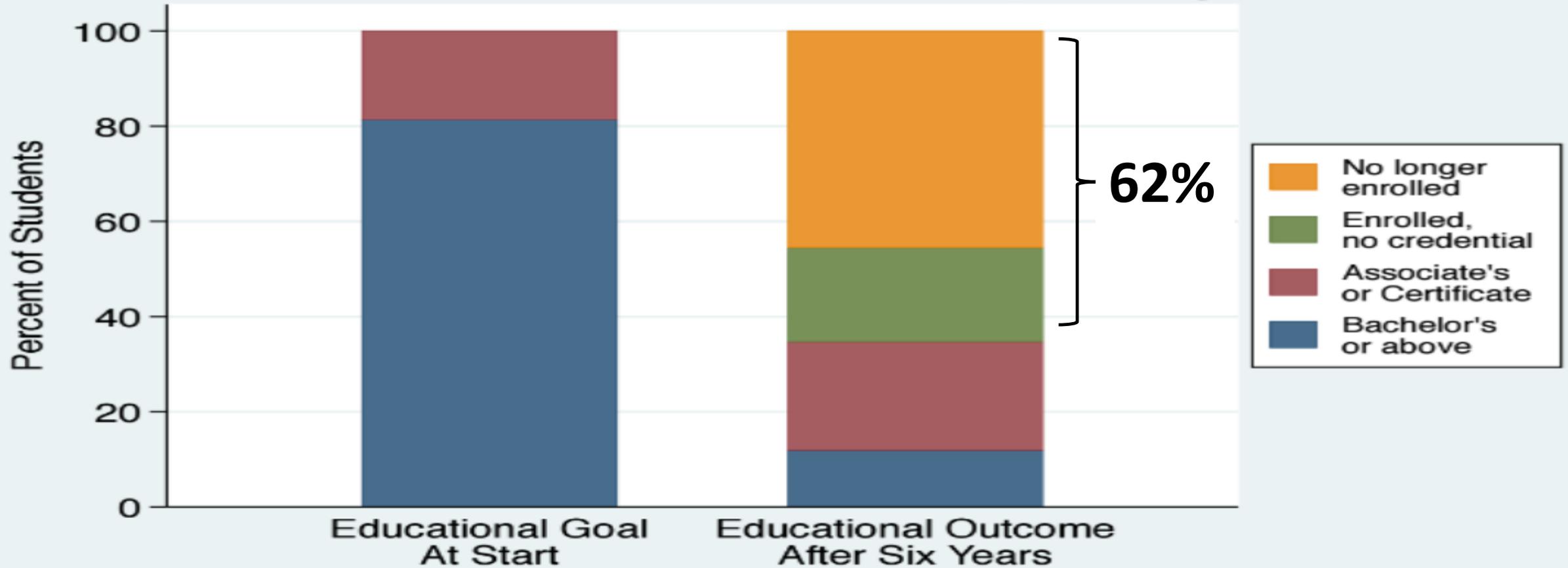


1 Employed In Chosen Career

Each year dropouts represent **\$320 billion** in lost lifetime earning potential

**SOURCE:** Alliance for Excellent Education, "The High Cost of High School Dropouts: What the Nation Pays for Inadequate High Schools," (Washington, DC: 2008).

## Educational Goals and Six-year Attainment, Students who Started at a Community College, Fall 2003



Source: U.S Department of Education, National Center for Education Statistics, 2003 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/09)

# From our Students' Perspective:

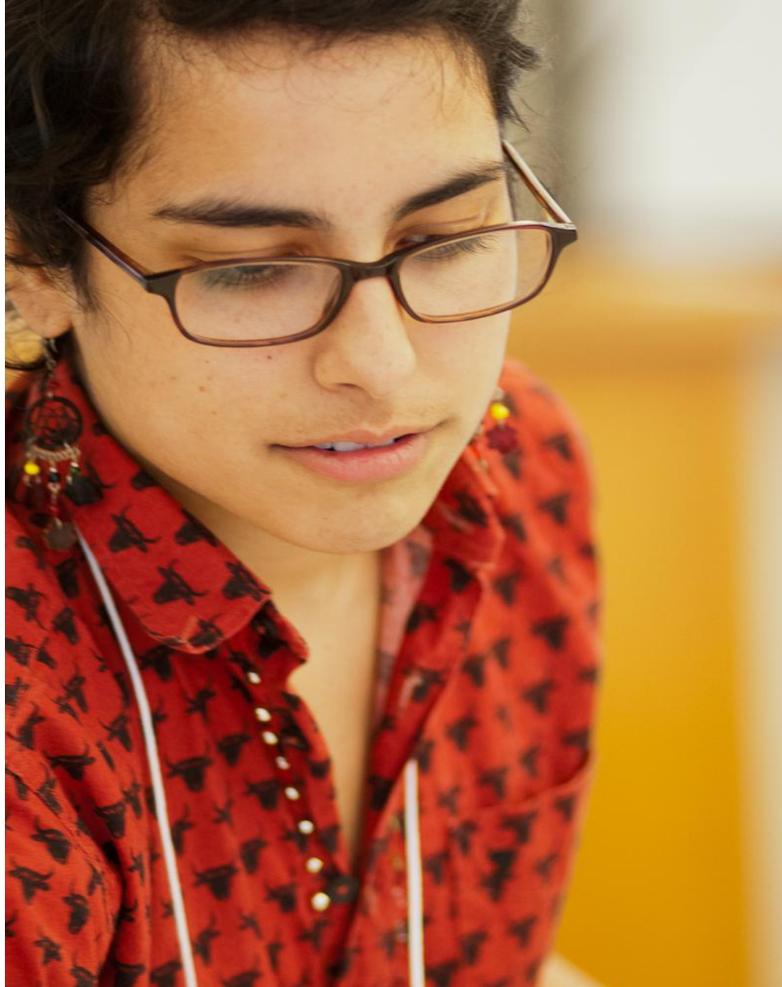


## Our Students Want to Know:

- What are my career options?
- What are the education paths to those careers?
- How do I get a bachelor's degree?
- What will I need to take?
- How long will it take and how much will it cost?
- How do I pay for it?



## However, from Major Selection...



Programs	Associate Degree	Transfer Degree	Certificate
Accounting (AS)	AS		
Accounting Technician			CA
Administration of Justice	AA	AS-T	
Administrative Assistant (AS)	AS		
Administrative Assistant (COA)			CA
Administrative Assistant Entrepreneur			CP
Anthropology	AA	AA-T	
Aquatics			CA CP
Architecture	AA AS		
Architecture Technology			CA
Art (Emphasis in Ceramics)	AA		
Art (Emphasis in Painting)	AA		
Art (Emphasis in Sculpture)	AA		
Art (General)	AA		
Art History	AA		
Audio Recording			CP
Automotive Chassis Technology			CA
Automotive Drivetrain Technology			CA
Automotive Engine Machining			CA
Automotive Engine Performance Technology			CA
Automotive Maintenance Technology			CA
Automotive Service Consulting			CA
Automotive Technology	AS		
Automotive Technology (Emphasis in BMW Manufacture Training)	AS		
Automotive Technology Entrepreneur			CP
BMW Manufacture Training			CA
Behavioral Science	AA		
Biology	AA	AS-T	
Biology (Emphasis in Allied Health)	AA		
Bookkeeping			CA
Business	AS		
Business Administration		AS-T	
Business Graphics			CP
Businessâ€ Transfer			CA

## ...to General Education Requirements, More Clarity is Needed

### **Basic Liberal Studies Requirements: [2 courses must include the Diversity (D) overlay]**

#### **English Communication: 6 credits; 3 credits must be in a writing course**

Writing (ECw): ELS 112, 122 (nonnative speakers); HPR 326; WRT 104, 105, 106, 201, 227, 235, 302, 303, 304(D), 305(D), 333.

General (EC): COM 100(D), 110(D); LIB 120; PHL 101.

#### **Fine Arts and Literature (A): 6 credits; 3 credits in Fine Arts and 3 credits in Literature**

Fine Arts: ARH 120(D), 251(D), 252(D); ART 101, 207; FLM 101(D), 203(D), 204(D), 205(D); HPR 105, 124, 201A, 202A, 324; LAR 201; MUS 101(D), 106(D), 111, 292(D), 293(D); PLS 233; SPA 320(D); THE 100, 181, 351(D), 352(D), 381, 382, 383.

Literature: AAF 247(D), 248(D); CLA 391(D), 395(D), 396(D), 397(D); CLS 160(D); ENG 110(D), 160(D), 241(D), 242(D), 243(D), 247(D), 248(D), 251(D), 252(D), 260(D), 262(D), 263(D), 264(D), 265(D), 280(D), 300(D), 302(D), 303(D), 304(D), 317(D), 355(D), 357(D), 358(D); FRN 309(D), 310(D), 320(D), 391(D), 392(D), 393(D); HPR 105, 125, 201A, 202A; RUS 391(D), 392(D); SPA 305(D), 306(D), 307(D), 308(D); WMS 317(D).

#### **Language/Culture (FC): 6 credits**

- Demonstration of competence through the intermediate level by examination or successfully completing through 104 (living language) or 302 (classical language)
- Two-course sequence (or one course at the 113 level) in a previously studied language through at the appropriate level (all D): ARB 103, 104; CHN 103, 104; FRN 103, 104; GER 103, 104; GRK 301, 302; HBW 103, 104; ITL 103, 104, 111; JPN 103, 104; LAN 193, 194; LAT 301, 302; POR 103, 104; RUS 103, 104; SPA 103, 104, 111, 113, 210.
- Two-course sequence (or one course at the 111 level) in a language not previously studied (or studied for less than two years in high school) through the beginning level: ARB 101, 102; CHN 101, 102; FRN 101, 102; GER 101, 102; GRK 101, 102; HBW 101, 102; ITL 101, 102; JPN 101, 102; LAN 191, 192; LAT 101, 102; POR 101, 102; RUS 101, 102; SPA 101, 102.
- Study abroad in an approved program for one semester
- Major in a foreign language
- Formerly registered international students, students with recognized immigrant status, or naturalized citizens (at Dean's discretion)
- Two courses in Cross-Cultural Competence: CPL 300(D); FRN 309(D), 310(D), 320(D), 391(D), 392(D), 393(D); HIS 132(D), 171(D), 172(D), 180(D), 311(D), 327(D), 374(D), 375(D); HPR 201F, 202F; LET 151L(D), 151Q(D), 151R; NRS 300; PHL 331(D); RLS 131(D); SPA 320(D), TMD 224(D); six credits of a full-semester approved Intercultural Internship in a foreign country through the Office of Internships and Experiential Education

#### **Letters(L): 6 credits**

AAF 150(D), 201(D), 355(D), 356(D); APG 327; BGS 392(D); CLS 160(D), 235; EGR 316(D); ENG 110(D), 160(D), 243(D), 251(D), 252(D), 280(D), 355(D), 356(D); FRN 391(D), 392(D), 393(D); HIS 111, 112, 113(D), 114(D), 116, 117, 118(D), 130(D), 132(D), 141(D), 142(D), 145(D), 146(D), 150(D), 160(D), 171(D), 172(D), 180(D), 304, 305, 310(D), 311(D), 314, 323(D), 327(D), 332(D), 333(D), 340(D), 341(D), 346(D), 351(D), 355(D), 356(D), 374(D), 375(D); HPR 107, 201L, 202L, 307; JOR 110(D); LAR 202(D); LET 151L(D), 151Q(D), 151R(D); NUR 360(D); PHL 101, 103, 204, 210(D), 212(D), 215, 217(D), 235, 314, 316(D), 321, 322, 323(D), 325(D), 328(D), 331(D), 346, 355; PSC 341, 342; PSY 310; RLS 111(D), 125, 126, 131(D); WMS 220(D), 315(D), 320(D)

#### **Mathematics(MQ): 3 credits satisfied by MTH 141**

BUS 111, CSC 101, 201; HPR 108, 201M, 202M; MTH 106, 107, 108, 109, 111, 131, 141; PSC 109; STA 220.

#### **Natural Sciences(N): 6 credits; satisfied by PHY**

APS 190, 210, 211; APG 201(D); AST 108, 118; AVS 101(D); BCH 190; BIO 101, 102, 105, 106, 286(D); BPS 201; CHM 100, 101, 103, 112; GEO 100, 102, 103, 110, 113, 120; HPR 109, 201N, 202N; MIC 190; NPS 207; NRS 190; OCG 110, 123, 131; PHY 109, 111, 112, 140, 185, 186, 203, 204, 205, 273, 274, 275; PLS 150, 190; TMD 113

#### **Social Sciences(S): 6 credits**

APG 200(D), 202, 203(D), 301(D); CPL 202(D); ECN 100(D), 201, 202, 306, 381(D); EDC 102(D); EEC 105, 310, 356; GEG 101(D), 104(D), 202(D); HDF 225; HPR 110(D), 201S, 202S; HSS 130; JOR 110(D); KIN 123(D); LIN 200(D); MAF 100; NUR 150(D); PSC 113(D), 116(D), 274(D), 288; PSY 103(D), 113(D), 232(D), 235(D), 254(D), 255(D); SOC 100(D), 212(D), 230(D), 240(D), 242(D), 274(D); TMD 224(D), WMS 150(D)



# Case Study: First Year Business Math Requirement

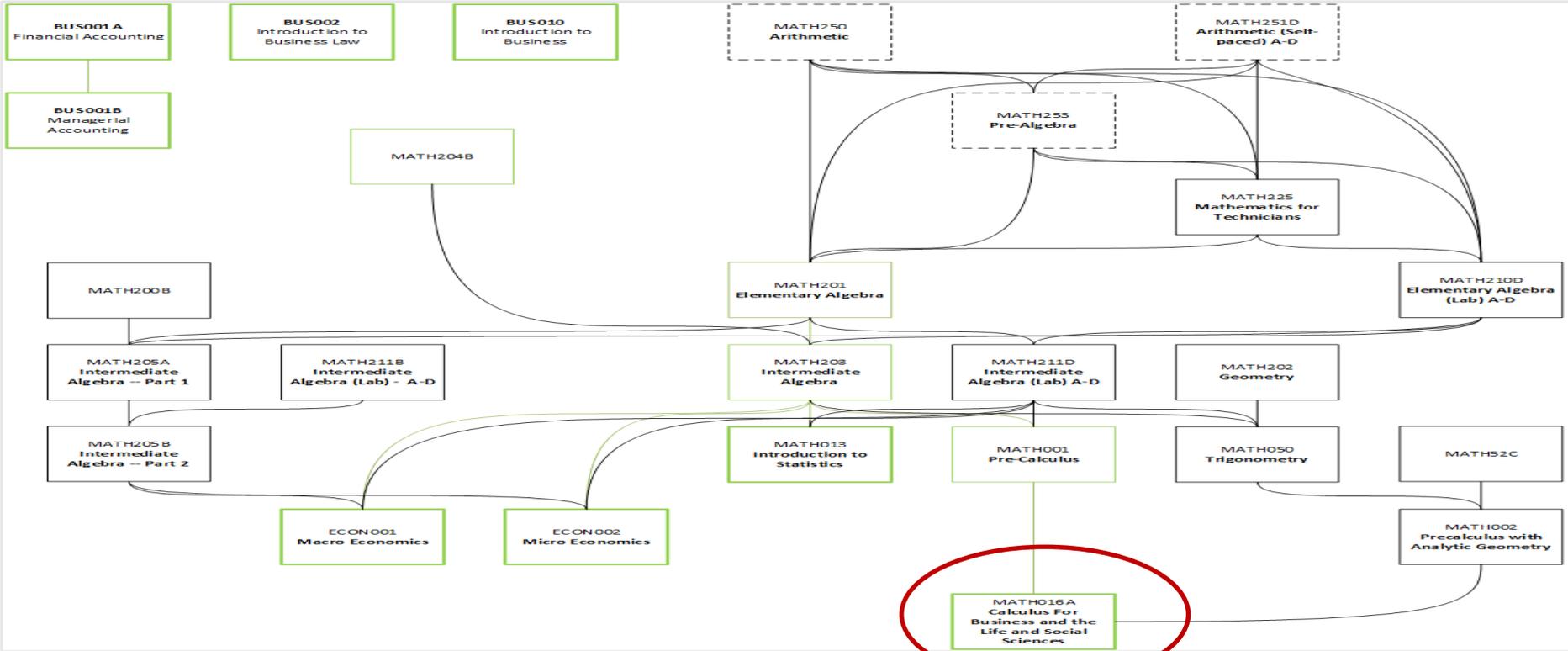
## Two-Year Course Sequence Beginning in the Fall Semester

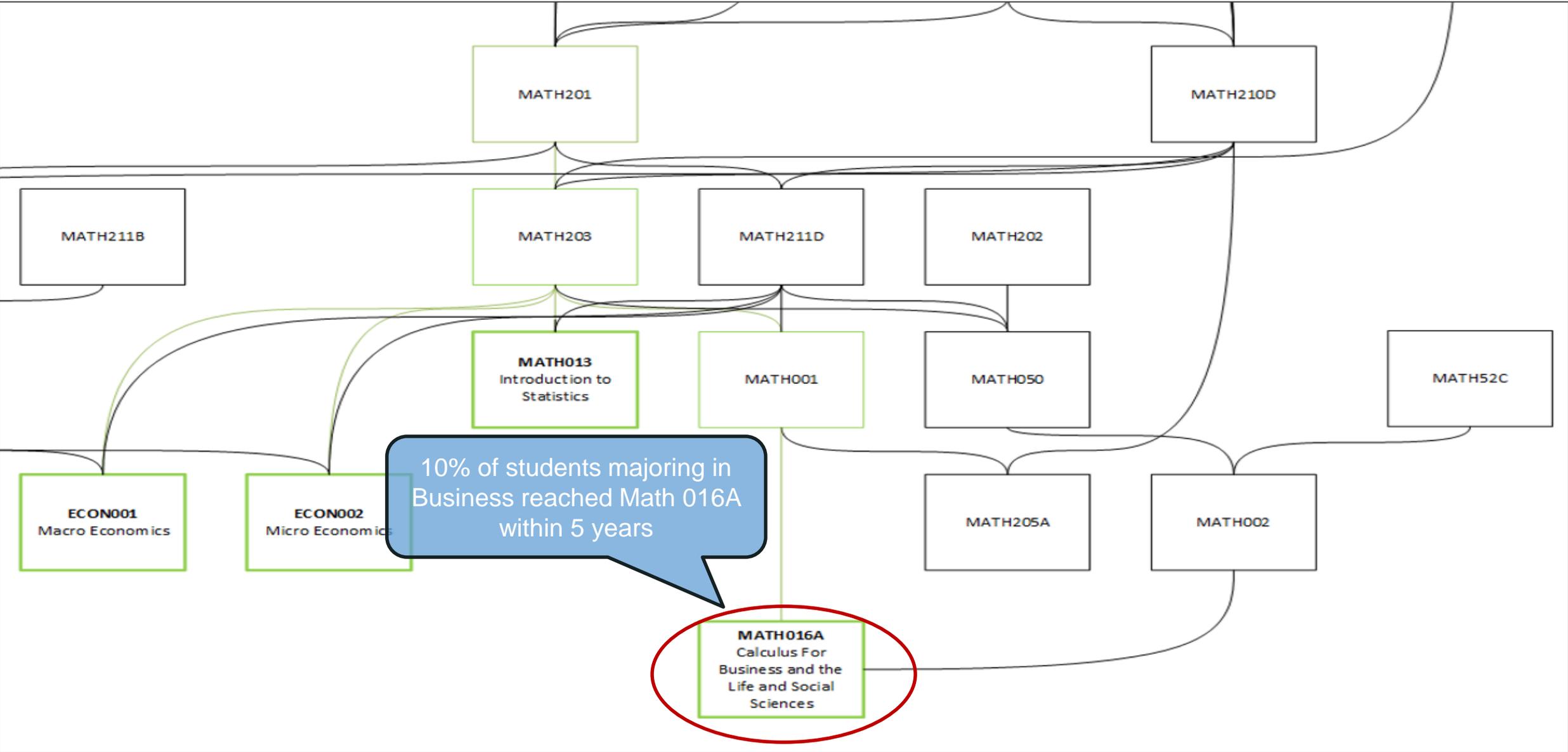
You can use the following pattern to complete an Associate in Science Degree for Transfer in Business Administration. This is only one possible pattern. If you wish to earn an associate degree, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a counselor. This plan will map your sequence of courses to help you complete your degree regardless of the semester you begin classes.

<b>1st Semester/Fall</b>		<b>Units</b>
BUS 010	Introduction to Business	3
MATH 016A	Calculus for Business and the Life and Social Sciences	3
General Education and Elective Courses		9
<b>2nd Semester/Spring</b>		<b>Units</b>
BUS 002	Introduction to Business Law	3
ECON 001	Principles of Economics (Macro-Economics)	3
General Education and Elective Courses		9
<b>3rd Semester/Fall</b>		<b>Units</b>
BUS 001A	Financial Accounting	4
ECON 002	Principles of Economics (Micro-Economics)	3
General Education and Elective Courses		8
<b>4th Semester/Spring</b>		<b>Units</b>
BUS 001B	Managerial Accounting	4
MATH 013	Introduction to Statistics	4
General Education and Elective Courses		7



# CALIFORNIA CC CASE STUDY: COURSE SEQUENCE FOR AN AA IN BUSINESS



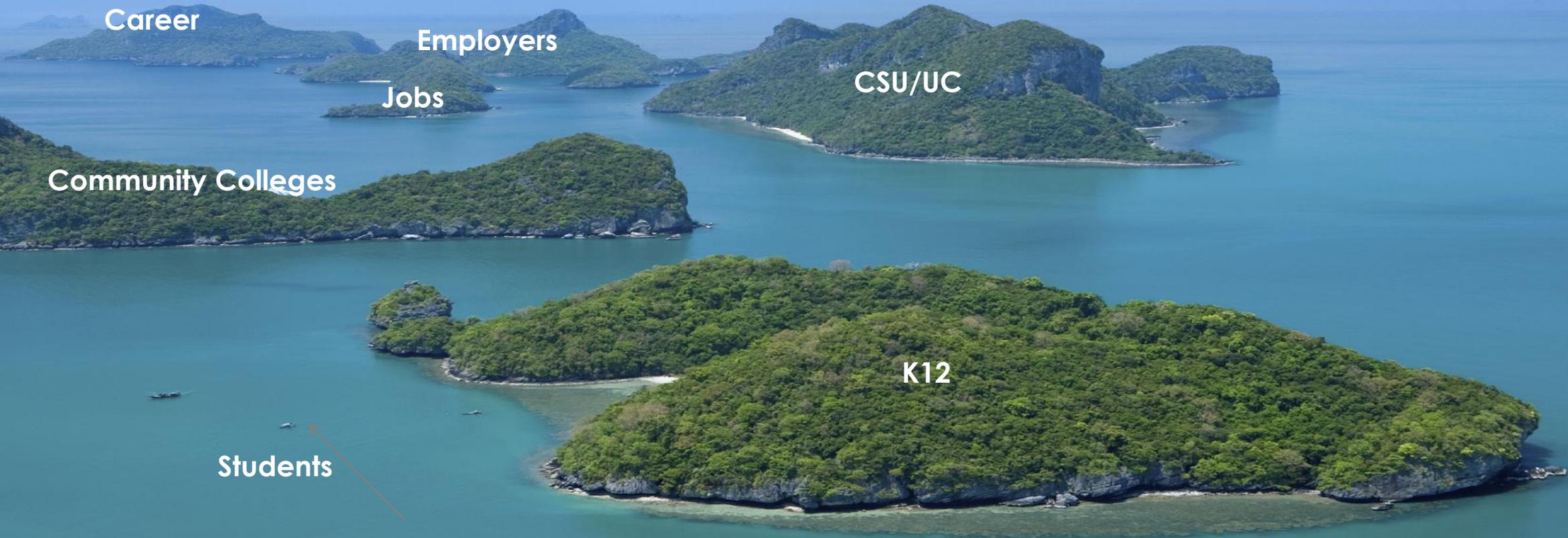


## Business Math Case Study is not Anecdotal: Our Students tell Researchers...

- **>50%** Concerned about making a mistake when choosing classes (Moore & Shulock, 2014)
- **42%** don't have enough information about requirements (*Rosenbaum et al, 2006*)
- Surprised to find that courses taken **do not count** towards credentials (*Nodine et al 2012*)



# Building Pathways for Navigating College and Career



For Ourselves:



# Grants in Your Mirror May Be Larger than They Appear



**TAACCCT**  
**Common Core**  
**SB 1070**  
**CAA**  
**Career Pathways Trust**  
**Youth Career Connect**  
**Linked Learning**  
**AB 86 Adult Ed**  
**Student Success Act**

Randy Tillery, Senior Dean, CCCC

## **K12**

*1000+ School Districts; 58 County Offices of Ed*

- Local Control Funding Formula (LCFF)
- Local Control and Accountability Plan (LCAP)
- Common Core State Standards
- Smarter Balanced Assessment
- Next Generation Science Standards
- CTE Standards and Framework
- CA Office to Reform Education (CORE) Waiver Districts
- CA Partnership Academies
- Linked Learning District Initiative
- AB790 LL Pilot Districts
- Career Technical Education Incentive Grant

## **CCC/K12**

- SB1070 CTE Pathways Program
- AB86: Adult Ed/CCC Regional Consortia
- AB86: CA Career Pathways Trust (CCPT)
- AB288: College and Career Access Pathways (CCAP) Partnerships

## **CA Community Colleges**

*72 Districts (112 Colleges, 76 Centers); 15 Regions  
7 Workforce & Econ Dev Regional Consortia*

- Basic Skills Initiative
- Career Advancement Academies
- Enhanced Non-Credit
- SB1440 Assoc. Degrees for Transfer
- Student Success Act of 2012
- Online Education Initiative
- Common Assessment Initiative
- Multiple Measures Assessment Project
- Education Planning Initiative
- Doing What Matters
- ARCC; Scorecard and System Completion Goals
- Salary Surfer; Launchboard; CTE Data Unlocked
- CTE Enhancement Fund
- SB850 CCC Bachelor's Degree Pilots
- Student Equity Plans
- Basic Skills Student Outcomes and Transformation Program
- Institutional Effectiveness Partnership Initiative (IEPI)
- California College Promise
- Strong Workforce Program
- *CCC Guided Pathways Program (proposed)*

## CA Workforce Development Board

48 Local Workforce Development Boards (47 areas)

From **WIA** to **WIOA**

- CA Strategic Workforce Dev Plan 2013-17
- Local Strategic Workforce Plans 2013–17
- CA Unified Strategic Workforce Development Plan 2016-2020 (WIOA)
- *Local Boards Strategic Workforce Dev Plan - TBD*
- SB 118 Sector Strategies
- Prop 39 Clean Energy Job Creation Training Grants
- Workforce Accelerator Fund
- “Slingshot” Initiative (Regional Coalitions)
- ForwardFocus (AB2060 Recidivism Reduction Funds)

## Other Regional Entities, Partnerships

**& Initiatives** *Examples include:*

- LA County Econ Development Corporation (LAEDC)
- LA Chamber
- LA Compact/UNITE-LA
- United Way Los Angeles
- Aspen Forum for Community Solutions Opportunity Youth Incentive Fund (7 CA sites, incl. LA)
- James Irvine Foundation “Regional Hubs of Excellence”

## Federal Initiatives & Grant Programs

- Perkins Career & Technical Education Act
- TAA Community College Training Grants
- Dislocated Worker Nat’l Emergency Grants
- Health and Human Services Grants
- SNAP Employment and Training Funds
- Apprenticeship USA State Expansion Funds
- Career Pathways for Youth
- Re-entry Demonstration Projects
- America’s Promise: American Tech Training Fund
- ETC.

## Other Related Agencies/Services in CA

- Governor’s Office of Business & Econ Dev (GO-Biz)
- Cities, Counties
- Other Workforce Programs: CalWorks; Rehabilitation; Corrections; Veterans Affairs, Apprenticeship; Health and Human Services; Social Services; Job Corps; Employment Training Panel; Public Utilities Commission; etc.

**What if pathways could be our North Star?**



**Perhaps, But What do you  
Mean by Pathways?**



# What is a Career Pathway?

A Career Pathway is a series of structured and connected education programs of study and supports that enable students to advance over time to higher levels of education and training and eventually a career or better job.

- Career Pathways can **begin as early as middle school and extend to post-secondary institutions, including community colleges, 4-year colleges, and even graduate programs.**
- **Each step** on a career pathway is **designed explicitly to prepare students to progress to the next level of employment and/or education.**
- Career pathways **target jobs in industry sectors of importance to local and regional economies.**

*-- Career Ladders Project. (2014) Summary of national literature on Career Pathways.*



# HIGH IMPACT PATHWAYS (HIP)

## When done well, career pathways:

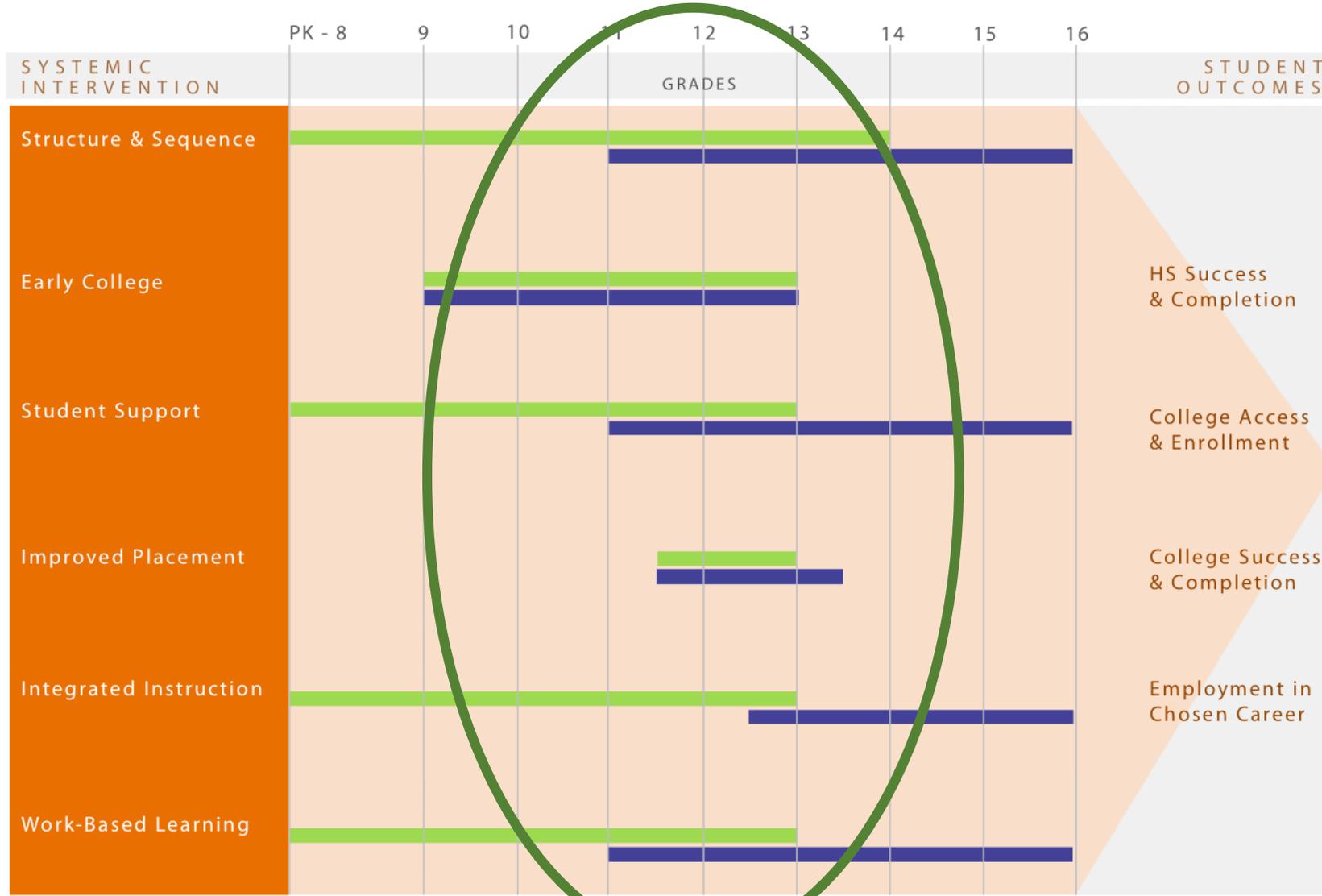
- Include **on-ramps or bridges** for youth or adults with multiple barriers to post-secondary attainment and/or employment.
- Span the **entire range of programs**, from entry level intensive “bridge” programs to certificates, degrees and transfer.
- Are **stackable** in design, nesting certificates within longer degree and transfer structures, always preparing students for the next step.
- **Contextualize** foundational skills to the knowledge and skills needed in broad groups of occupations or fields.
- Provide an effective framework for education and workforce development by **aligning** with industry needs and **integrating** resources of colleges, other educational partners, workforce agencies, social service providers and other stakeholders.
- **Engage employers** in pathway development, establishing needed competencies, worksite training, internships, and placements.
- Focus on **careers in demand** that provide **family-sustaining wages** and ongoing advancement opportunities.
- Include **work based learning** via credit-based and/or paid work experience, internships or service learning.
- Use and promote **data** and focus on **continuously improving** outcomes.

Career Ladders Project, High Impact Pathways. [http://www.careerladdersproject.org/wp-content/uploads/2013/06/HIP\\_onepage\\_05.pdf](http://www.careerladdersproject.org/wp-content/uploads/2013/06/HIP_onepage_05.pdf)



# HIGH QUALITY PATHWAYS FOR ALL

■ PK - 12  
■ POST-SECONDARY



# Pathways are a Framework for Evidence-Based Practices increasing Success and Equity

- Instructional Structure and Sequencing
- Early College Credit Opportunities
- Integrated Student Supports
- Improved Placement and Developmental Sequences
- Integrated Instruction
- Experiential Learning



# Structure and Sequence

- Default or Recommended Sequences
  - Tied to competencies of profession and field
- Stackable Certificates and Degrees
  - Nesting certificates within longer degree and transfer structures, always preparing students for the next step
- Multiple Entry and Exit Points
- Span entire Pathway (K12/AE Bridge to Degree)
- Informed and continuously improved by data



# Early College Credit Opportunities

- Early College Credit
  - Articulation
  - Credit by Exam
  - Concurrent Enrollment
  - Dual Enrollment
- On-Ramps and Bridges
  - K-12
  - Adult Education
- Focus
  - Early Career and College Exploration
  - Developmental and Credit Recovery



# Early College Credit

## Dual Enrollment benefits students facing multiple barriers:

- **CTE program students benefit** from dual enrollment participation. (Karp, et al., 2007; Rodriguez, Hughes, & Belfield, 2012; Struhl & Vargas, 2012 )
- **Male students may benefit more** from participation than other sub-groups. (Karp et al., 2007)
- **Low-income, first-generation and academically “at risk” students benefit** from participation. (Rodriguez, Hughes, & Belfield, 2012; An, 2013; Struhl & Vargas, 2012)
- Some studies find that they do so **to a larger extent than other student groups.** (Rodriguez, Hughes, & Belfield, 2012; An, 2013; Struhl & Vargas, 2012)



# Integrated Student Supports

- Academic Supports
  - Instructional
  - Counseling
- Non-Academic Supports
  - Social
  - Economic

*When counseling resources are not part of classroom requirements or otherwise integrated into students' educational experience, that the first generation and minority community college students who are most in need of accessing career counseling resources are least likely to approach them. (Karp et al 2011; Cox 2008).*



# Improved Placement and Developmental Sequence

- Multiple Measures
  - High School GPA
  - Guided Self-Placement
- Improved Developmental Education Sequences
  - Acceleration
  - Co-Requisite

*Two thirds of students nationally and in CA are placed in remediation. A third could have succeeded if they were placed directly in college level courses. (Scott-Clayton, Crosta & Belfield 2012)*

# Integrated Instruction

- Contextualized Teaching and Learning
- Project-Based Learning
- Team Teaching/Co Teaching
- Models:
  - Washington's Integrated Basic Education and Skills Training Program (I-BEST)
  - Career Advancement Academies

*Contextualizing basic skills education to a particular career field, in conjunction with other key CAA program elements, can contribute to: Increased basic academic skills gains – accelerated student learning, improved critical thinking skills, and problem-solving; Improved engagement and motivation; Improved progression and success in subsequent coursework; and Improved persistence in college level work, completion of college credits and a credential. (Career Ladders Project & Equal Measure)*

## Experiential Learning

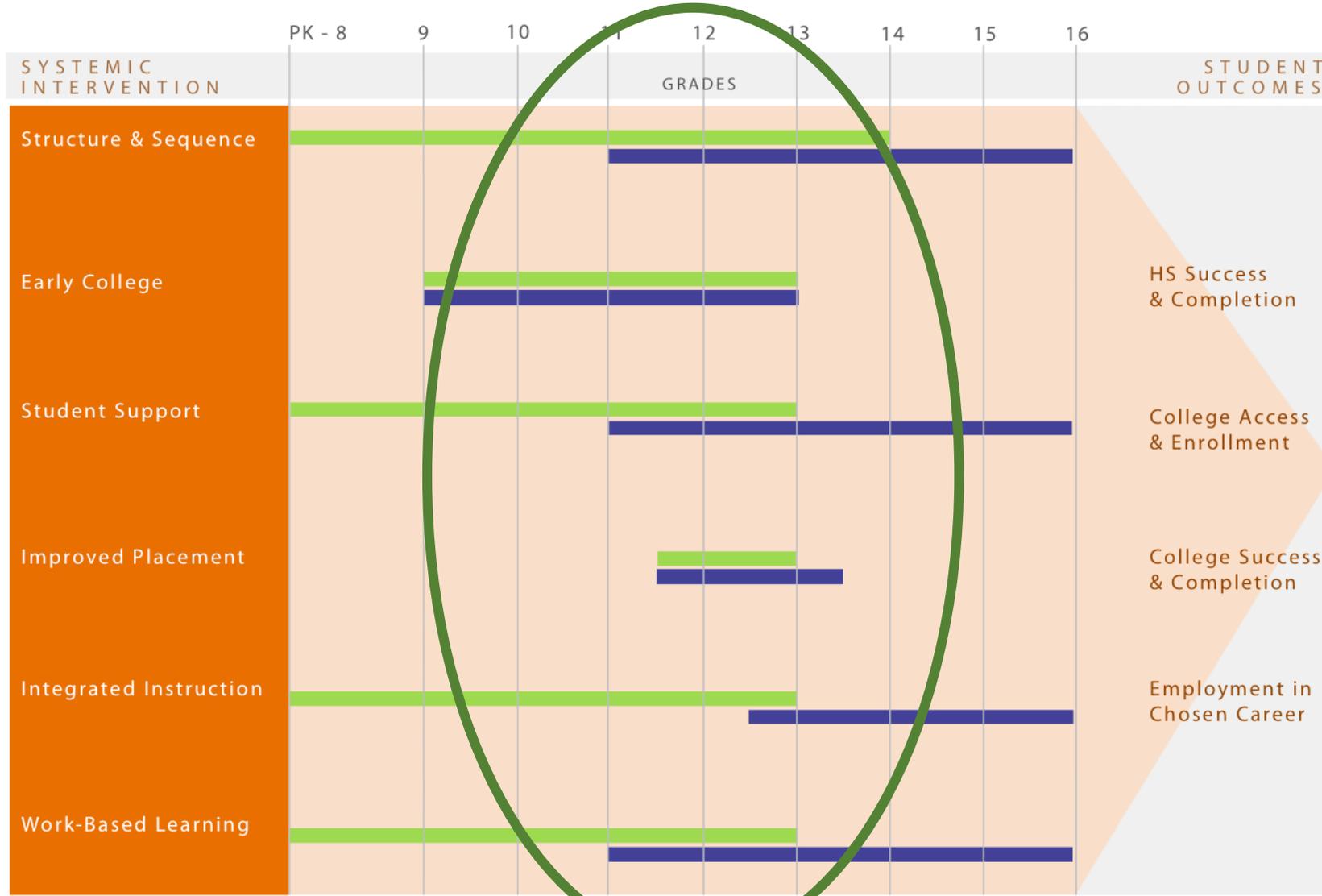
- Work-Based Learning
- Service Learning

*In a seven-year study of one California work-based learning program, researchers found that minority students participating in work-based programs entered college at twice the rate of non-participating minority students and that college enrollment rates were higher for all students in the program when compared to local and state student populations (CART, 2011).*



# HIGH QUALITY PATHWAYS FOR ALL

■ PK - 12  
■ POST-SECONDARY



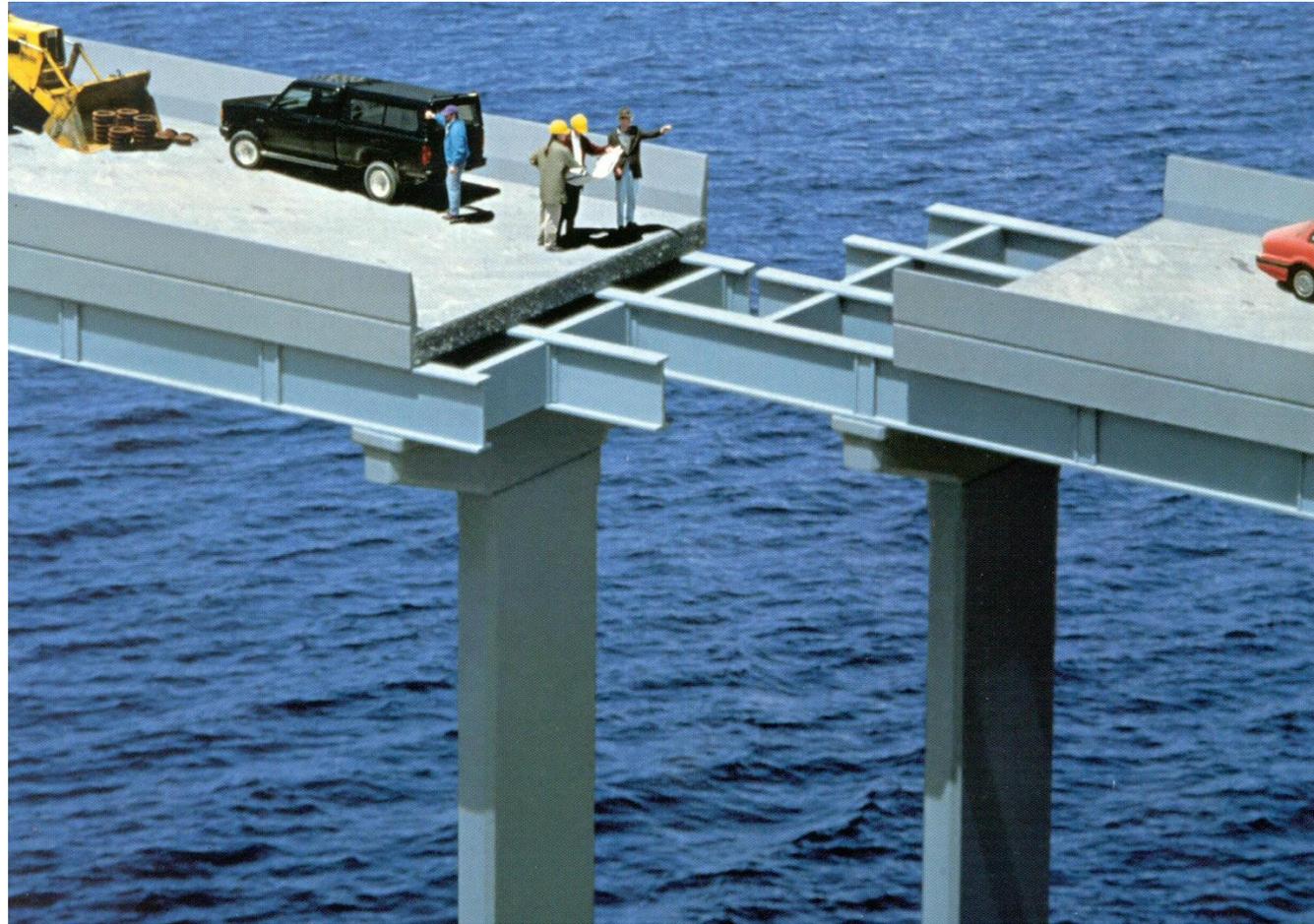
**SWEET SPOT:  
OUR STUDENTS!**



# Pathway Mapping



# Rapidly Making Visible the Invisible: Gold in our Gaps!



# What is Pathway Mapping?

- Powerful **process** to create a clearer/bigger picture of the pathway which allows educators to identify, align, and strengthen pathways across systems
- A **way to communicate** the benefits of pathway education to all stakeholder
  - Including program of study, transitions, post sec. completion, WBL & industry engagement.
- **Identify gaps to inform action** and **leverage** resources/initiative (i.e. Perkins, SSSP, Equity, SWF, AEBG)



# What Pathway Mapping is NOT

- Course content
- Alone, pathway mapping won't make any changes to program



Questions?

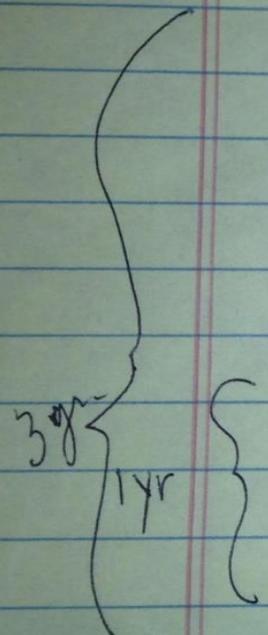


Okay mapping sounds interesting, but how?

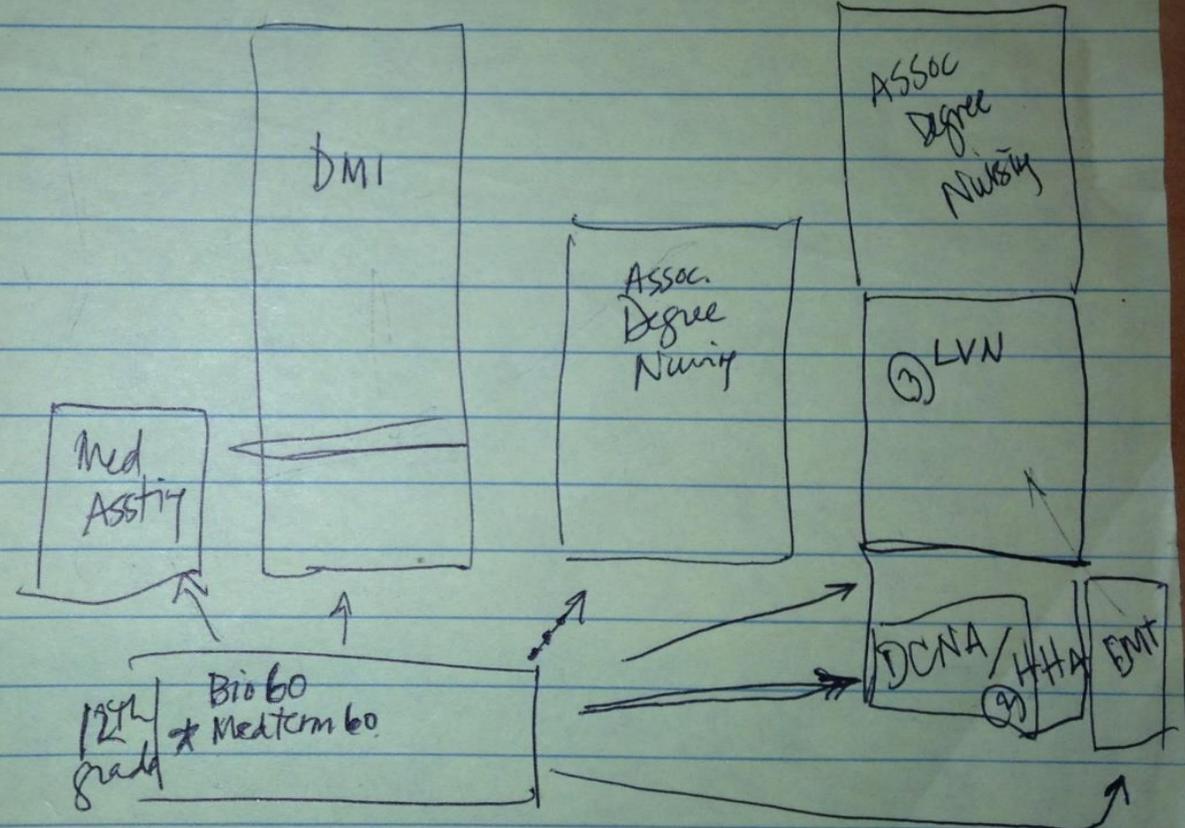


LBUSD  
Student Flow  
Sketch

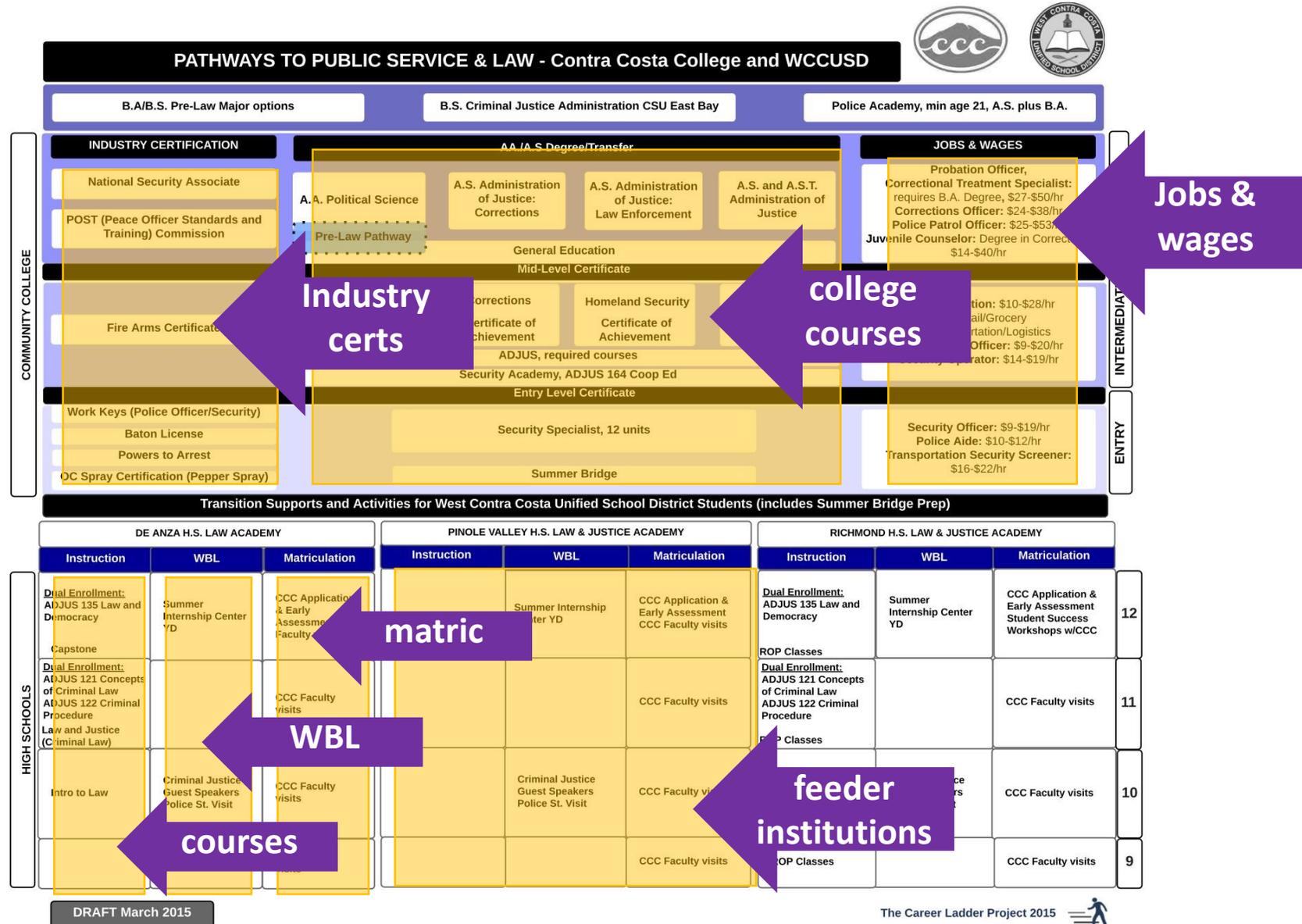
LBCC



LBUSD

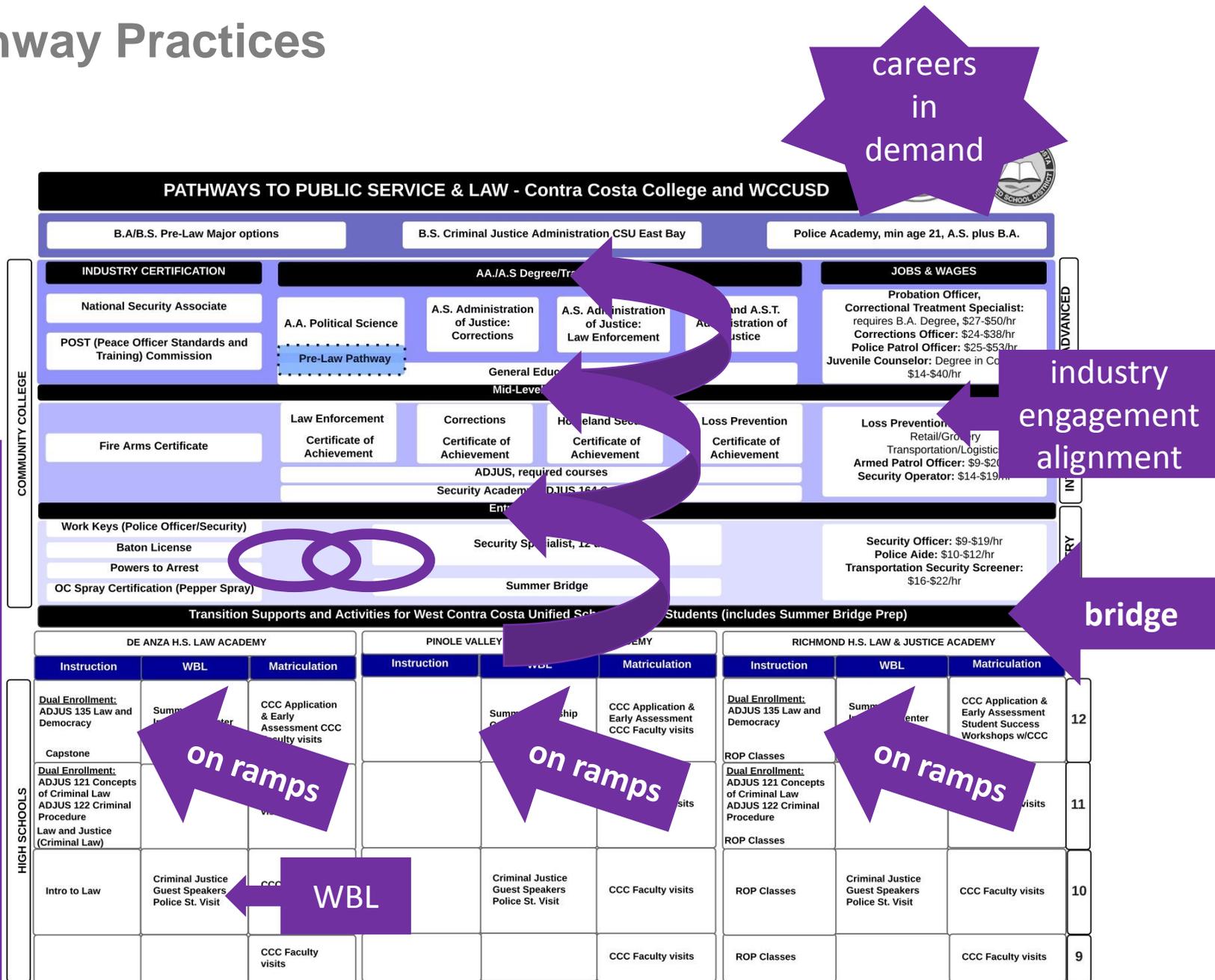


# Mapping all Evidence-Based Practices of Pathways

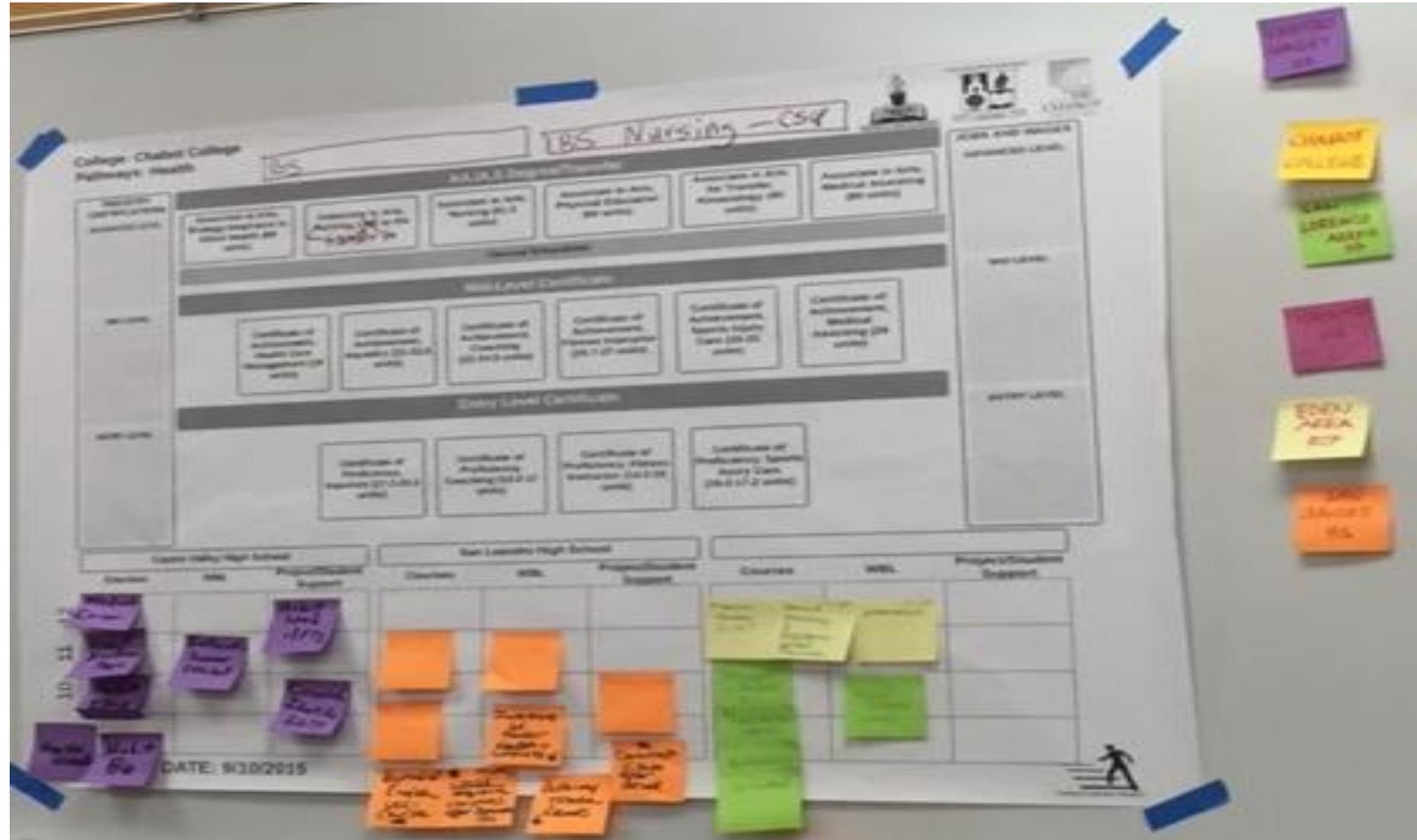


# Mapping Pathway Practices

span entire length of pathway



# RapidMapping



## Mapping Step-by-Step:

1. Use post it notes and update or edit what is on the draft pathway maps for your pathways. Include curriculum, labor market information (jobs and wages), industry certifications, as well as integrated and experiential learning.
2. Mark any early college credit (dual enrollment or articulation), non-credit connections, 4-year connections, as well as bridges, and on-ramps.
3. Use stars to indicate what is in progress or aspirational.
4. Please be prepared to share out briefly your map of what you currently have in place.



# Mapping Best Practices: From the Cartographers

- Do not use pens, pencils or highlighters. Black felt tip pens (not sharpies) are best.
- Encourage people not to stack post-it notes on top of each other, if we are making edits from a picture it is impossible to see what is underneath something.
- Help mappers avoid the acronym trap.
- Encourage mappers to add notations but make sure they include them in a legend.
  - For example- if circles, stars, triangles are being used ask that they are included in the legend with a definition/explanation.
- If you can't read something, we can't read it. Please re-write when necessary.



# Transition to Breakout Rooms



## Breakout Room Gallery Walk

- Pathway teams, please share out:
  - What is currently in place?
  - What you aspire to do?
  - What support is needed or opportunities to partner?
- Clarifying questions?



**Now, Your Action Plan!**





# ACTION PLAN : BUSINESS

<b>ACTION STEPS</b>  <i>What will be done?</i>	<b>RESPONSIBILITIES</b>  <i>Who will do it?</i>	<b>TIMELINE</b>  <i>By when? (Day/Month)</i>	<b>RESOURCES</b>  <i>A. Resources Available B. Resources Needed (financial, human, political &amp; other)</i>	<b>POTENTIAL BARRIERS</b>  <i>A. What might get in the way based on the respective organization's POV? B. How will these be addressed?</i>	<b>COMMUNICATIONS PLAN</b>  <i>Who is involved? What methods? How often?</i>

# ACTION PLANNING

## With your team:

- Starting with one priority area draft action plan
  - Tasks/Actions
  - Responsible folks
  - Timeline
  - Resources



# RAPID MAPPING SHARE OUT

Please return to the main room and be prepared to share out:

- Ah-Has!
- Uh-ohs!
- Next Steps



**Transition to Main Room:  
Dinner!**



# RapidMapping Share Out

Please select a team member to share out:

- Ah Has!
- Uh ohs!
- Next Steps/Action Plan



# Next Steps?



# Completing your Map, with CLP Support!



# You are NOT alone!

Each pathway will have individual support to complete your map by 4/17

- Olivia
- Peter
- Mike

Please look out for two emails

- Scheduling
- Basecamp



# Mapping Community of Practice Tools

**Lucidchart** is a web-based diagramming software which allows users to collaborate and work together in real time to create flowcharts, organizational charts, website wireframes, UML designs, mind maps, software prototypes, and many other diagram types.



**Basecamp 3.0** is a web-based project management and collaboration tool. To-dos, files, messages, schedules, and milestones are all in one place instead of having stuff scattered all over the place — strewn across separate products, lost in inboxes, or scrawled on stickies or notepads.



# Basecamp

# Mapping to Action!



# Moving Together to Action, and Beyond

- Map and an Action Plan
  - Alignment
  - Outreach, In Reach
  - Early College Credit
  - Integrated Student Supports
  - Work-Based Learning
  - Resource Development
- Sharing! Rapid Mapping Toolkit and Train-the-Trainer



# Local Alignment

## Long Beach Allied Health Pathways: Health Information Technology Recommendations



**Health Information Technology, AS**  
Cypress College

**Early Credit Opportunities at LBCC**

- ▶ CIS 111 C Computer Information Systems (3 units)
- ▶ HS 145 C Survey of Medical Terminology (3 units)
- ▶ BIOL 210 C Anatomy and Physiology (5 units)
- ▶ HI 114 C Beginning ICD-10 Coding (3 units)

**Bachelor of Art, CAL State Long Beach**  
(MAJOR IN HEALTH CARE ADMINISTRATION/MINOR IN HEALTH INFORMATION SYSTEMS)

**Early Credit Opportunities at LBCC and LBUSD 1**

- ▶ IS 233 Introduction to Computer Systems and Applications\*\* (or equivalent)
- ▶ HSC 150 Medical Terminology\*\* (1 unit)
- ▶ SOC 250\*\* or PSY 210\*\* or STAT 108\*\*
- ▶ BIOL 205 human biology\*\* (or equivalent)
- ▶ Computer proficiency\*\*
- ▶ IS 380 Database Management\*\*

**Health Information Management, Bachelors Degree**  
San Diego Mesa College

**Health Information Technology, AS**  
Saddleback College

**Early Credit Opportunities at LBCC**

- ▶ CIM 112 Microsoft Office (3 units)
- ▶ HSC 201 Medical Terminology (3 units)
- ▶ HSC 277 Human Body Fundamentals (3 units)
- ▶ HIT 220/221 ICD Procedural Coding/Diagnostic Coding (4 units)

### Long Beach City College

**Industry Credentials**

American Health Information Management Assoc. (AHIMA)

- ▶ Certified Coding Assoc. (CCA)
- ▶ Certified Coding Specialist (CCS)
- ▶ Certified Coding Specialist-Physician Based (CCS-P)

American Assoc. of Professional Coding (AAPC)

- ▶ Certified Professional Biller (CPB)

**HEALTH INFORMATION BILLING AND CODING, Certificate of Achievement (23 units)**

- ▶ AH 60 Medical Terminology\* (3 units) 1
- ▶ BIO 60 Human Biology\* 1 (4 units) 1
- ▶ OR ANAT 41 Anatomy & Physiology\* (5 units)
- ▶ COSA 10 Microsoft Word for Windows\* (4 units)
- ▶ AH 276 Health Care Law (1 unit)
- ▶ MA 290 Medical Insurance Billing (3 units)
- ▶ MA XXX Medical Coding (to be developed) (3 units)

**HEALTH INFORMATION SYSTEMS SUPPORT, Certificate of Achievement (23-24 units)**

**COS Core Classes -ICT Statewide Curriculum**

- ▶ COSN 5 Computer Technician Hardware Basics (4 units)
- ▶ COSA 50 Introduction to IT Concepts & Applications (4 units) 1
- ▶ COSS 271 Networking Security Fundamentals (3 units)
- ▶ COSN 10 Networking Fundamentals (4 units)

**Health IT Specific Courses**

- ▶ AH 276 Health Care Law (1 unit)
- ▶ AH 60 Medical Terminology\* (3 units) 1
- ▶ BIO 60 Human Biology\* 1 (4 units) 1
- ▶ OR ANAT 41 Anatomy & Physiology\* (5 units)

**Industry Credentials**

COMPTIA

- ▶ A+ Certification
- ▶ Net+ Certification
- ▶ Security+ Certification

Microsoft Technology Associate (MTA)

### Long Beach Unified School District

- ▶ AH 60 Medical Terminology\* (3 units) 1 2
- ▶ COSA 10 Microsoft Word for Windows\* (4 units) 2
- ▶ BIO 60 Human Biology\* 1 (4 units) 1 2
- ▶ OR ANAT 41 Anatomy & Physiology\* (5 units)
- ▶ COSN 5 Computer Technician Hardware Basics (4 units) 2
- ▶ COSN 10 Networking Fundamentals (4 units) 2

**Health Informatics (HI)** is a science that defines how health information is technically captured, transmitted and utilized. Health informatics focuses on information systems, informatics principles, and information technology as it is applied to the continuum of healthcare delivery.

**\*Early CSULB Course Opportunities** 1  
**\*Early LBCC College Credit Opportunities** 2

**Health Information Technology** refers to the framework used to manage health information and the exchange of health information in a digital format. Health IT is focused on the technical side focused on hardware and software. They are usually professionals from information technology backgrounds.

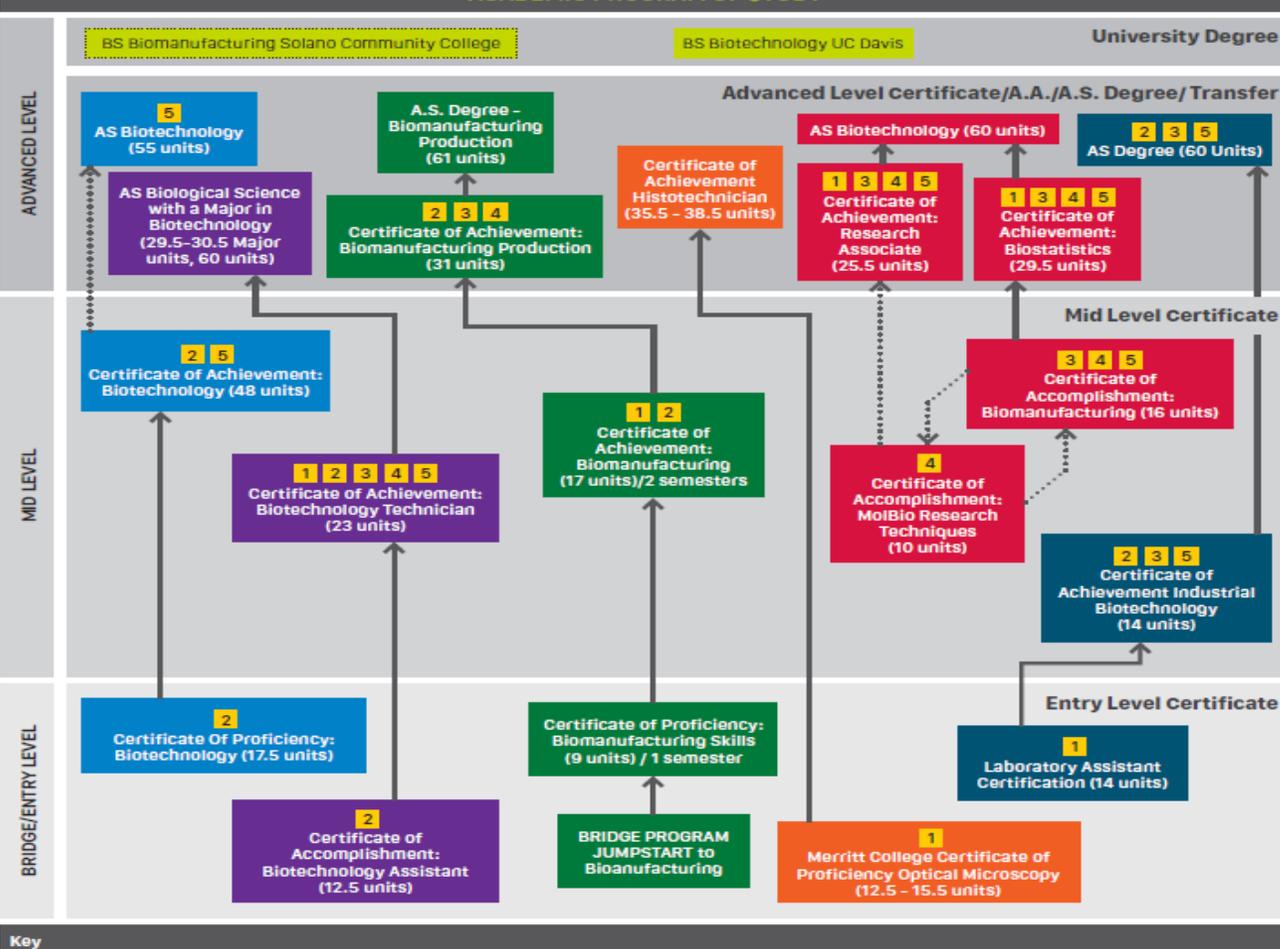
# Regional Curriculum Alignment

## East Bay Advanced Biotechnology Partnership

Biotechnology Regional Community College Offerings



### ACADEMIC PROGRAM OF STUDY



The **Course Identification Numbering System (C-ID)** is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number.

- 1 C-ID BIOT 101
- 2 C-ID BIOT 150
- 3 C-ID BIOT 210
- 4 C-ID BIOT 220
- 5 C-ID BIOT 230

### COMPETENCIES BY CATEGORY AND LEVEL

- Comply with applicable regulations and standards**
- Aseptic technique
  - Basic microscopy
- Manage and communicate information**
- Presentations
- Perform measurements/tests/assay**
- Test specific math (analysis, stat)
- Provide routine facility (media prep) support**
- MEDIA solutions prepared correctly

- Comply with applicable regulations and standards**
- Work in manner and regulatory expect
  - Good documentation standards
  - Items labeled appropriately and trackable
- Maintain a safe and productive work environment**
- Hazards
  - Safe Chemical Handling
- Manage and communicate information**
- Errors in tech documents reports and changes suggested
  - Recognize when information is necessary and respond to appropriate personnel
  - Inefficiencies are recognized/continuous improvement occurs
  - Presentations

- Maintain a safe and productive work environment**
- Waste disposal - identify procedures (biohazards)
  - Maintain clean clutter free workplace/contamination free
  - Personnel Protective Equipment
  - Safe Chemical Handling
- Manage and communicate information**
- Recognize when information is necessary and respond to appropriate personnel
  - Inefficiencies are recognized/continuous improvement occurs
  - Word processing and spreadsheets

- Perform mathematical manipulations**
- Multiple solutes
  - Dilutions
  - Serial dilutions
- Perform measurements/tests/assay**
- Choose and use appropriate MEAS tools
  - Data presented in appropriate manner
- Provide routine facility (media prep) support**
- Equip inventory/calibrated
  - Materials stored and expired
  - MEDIA solutions prepared correctly

- Perform mathematical manipulations**
- Ratios and Proportions
  - Units measure/conversions
  - Graphing
- Perform measurements/tests/assay**
- Sample labeling
  - Test performed by procedure
  - Notebooks
- Provide routine facility (media prep) support**
- MEDIA solutions prepared correctly
  - Appropriate glassware

### JOBS & WAGES

- Advanced Level Employment<sup>1</sup>:**
- \$18-\$28/hr
  - Laboratory Technician
  - Quality Control Analyst
  - Lab Manager
  - Quality Control Inspector
  - Quality Specialist
- \$18-\$23/hr**
- Biotechnician
  - Research Associate

- Intermediate Level Employment<sup>1</sup>:**
- \$18-\$23/hr
  - Research Technician
  - Manufacturing Technician
  - Production Technician
- \$18-\$20/hr**
- Instrumentation and Calibration
  - Media Prep Technician
  - Quality Control Technician or Assistant

- Entry Level Employment<sup>1</sup>:**
- \$16-\$18/hr
  - Glassware Washing
  - Documentation Support
  - Laboratory Support Workers
- \$15-\$18/hr**
- Laboratory Assistant
  - Media Prep Assistant

<sup>1</sup> Based on Supply and Demand Analysis: Life Sciences & Biotech Middle Skills Workforce in California, September, 2014

<sup>2</sup> Common Core Technical Skills and Standards for the Bioscience Laboratory Submitted by Bio-Link

This project is funded by a U.S. Department of Labor Trade Adjustment Assistance Community College Career Training grant to the East Bay. This product's cost to produce was \$4,203 (0.76% of project) from a grant awarded under the Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants, as implemented by the U.S. Department of Labor's Employment and Training Administration. Design It-Build It-Ship It (DBS) is an equal opportunity employer / program and auxiliary aids and services are available upon request to individuals with disabilities.

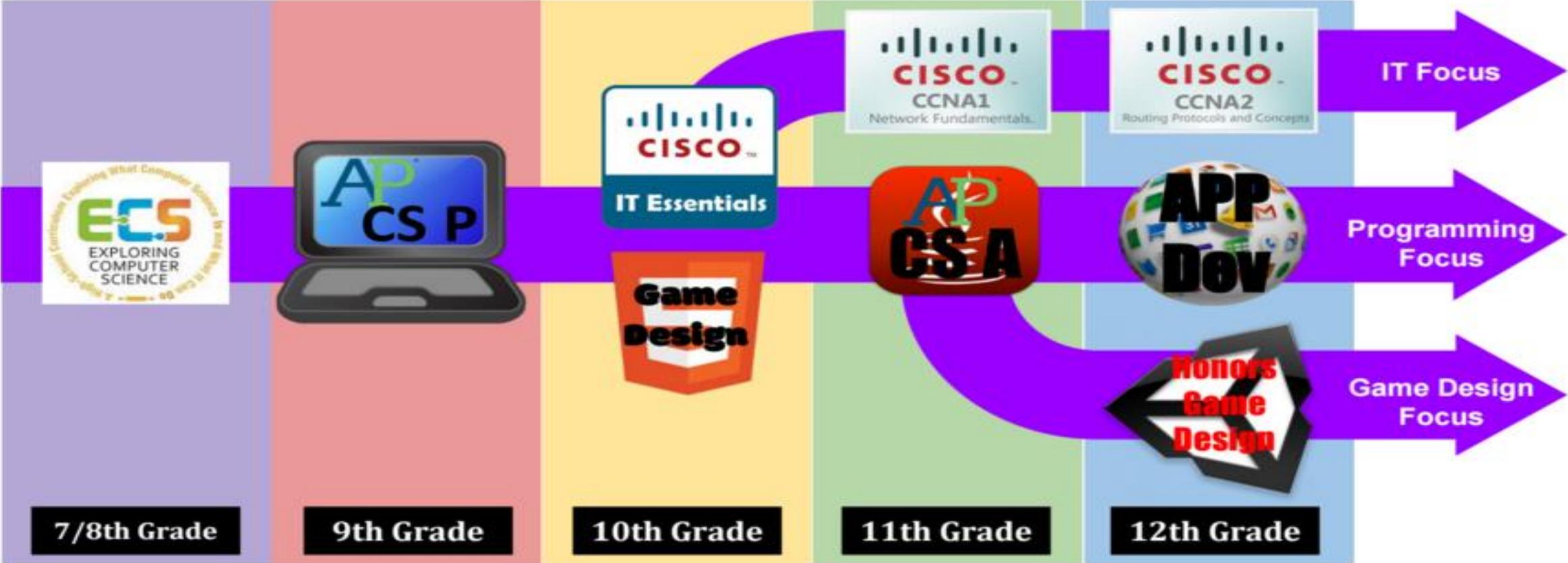


Career Ladders Project

July 9, 2015

Outreach! And, in reach!

# Information and Communication Technology Pathway



# Early College Credit Opportunities



**CAREER LADDERS PROJECT**  
FOSTERING EDUCATIONAL AND CAREER ADVANCEMENT FOR CALIFORNIANS

STAY UPDATED WITH CAREER LADDERS



[HOME](#) [INITIATIVES & PROGRAMS](#) [RESEARCH & RESOURCES](#) [CLP VIDEOS](#) [CLP LIBRARY](#) [COMMUNITIES OF PRACTICE](#) [ABOUT US](#)



**DUAL ENROLLMENT TOOLKIT**

The Career Ladders Project and The Research and Planning (RP) Group, in partnership with the California Community Colleges Chancellor's Office, have identified and organized a variety of tools based on research and work in the field. These tools will help community colleges and their secondary partners develop and maintain dual enrollment offerings. Funded by the California Community Colleges Chancellor's Office, Rancho Santiago Community College District, and the James Irvine Foundation.



## — DUAL ENROLLMENT TOOLKIT: A RESOURCE FOR COMMUNITY COLLEGES AND SCHOOL DISTRICT PARTNERS

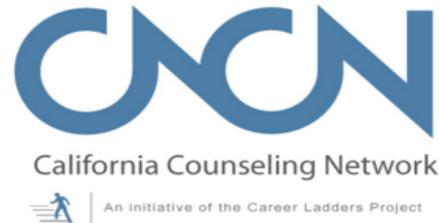
The Dual Enrollment Toolkit is a resource for secondary and community college partners. This resource will highlight and describe promising practices related to providing historically underrepresented high school students with opportunities to earn college credits at California Community Colleges (CCC) while they complete the requirements for their high school diplomas. The intent is to provide specific, concrete guidance and evidence to interested college administrators, faculty and staff who are planning to build partnerships with K12 districts to support dual enrollment efforts for this target population on their campuses and/or within their districts.

- Letter from CCCCCO
- *Dual Enrollment and Assembly Bill 288 (CCAP) – Legal Opinion 16-02*
- *AB 288 College and Career Access Pathways (CCAP) Partnership Agreement Apportionment Eligibility Checklist for Community College Districts*
- FAQ
- Decision Tree
- Comparison on Types of Agreements – AB 288 vs non-AB 288
- Instructor Qualifications – Conversation Guide
- [Instructional Minutes – Interview with CDE's Wendi McCaskill](#)

### Resources:

- Legislation
- CCCCCO Legal Opinion
- College Documents
- Research

# Integrated Student Supports



## CACN CURRENT ENGAGEMENTS

Diablo Gateways to Innovation

## — CALIFORNIA COUNSELING NETWORK (CACN)

Under the guidance and support of the Career Ladders Project, the California Counseling Network (CaCN) provides a professional forum for collaboration and innovation among counselors and student support colleagues serving students in secondary and post-secondary career pathways. CaCN functions as a platform for dialogue, resource sharing, and dissemination of effective practices with the goal of strengthening the impact of counseling on students' academic and career success. CaCN furthers the objectives of the California Career Pathways Trust (CPT) and other education reform initiatives by fostering partnerships and improving intersegmental alignment across systems which support transitions from high school to career. Expertise and collaboration from counseling and student-direct support systems are useful resources for CPT initiatives.

[PLEASE CLICK HERE TO BECOME A MEMBER OF THE CALIFORNIA COUNSELING NETWORK](#)

### RESOURCES:

#### **Career Ladders Project Resources:**

[DBS Community of Practice](#)  
[Improved Placement](#)  
[High School to Community College Transition Tools](#)

#### **Counseling Articles:**

[The Role of Counseling in an Era of College Readiness](#)

J. Lee, J. Mishook  
Annenberg Institute for School  
March 21012

#### **Pathway Articles:**

[The Pursuit of Pathways: Combining Rigorous Academics with Career Pathways](#)

R.B. Schwartz  
American Educator 2014

**High Impact Pathways have integrated student supports!**

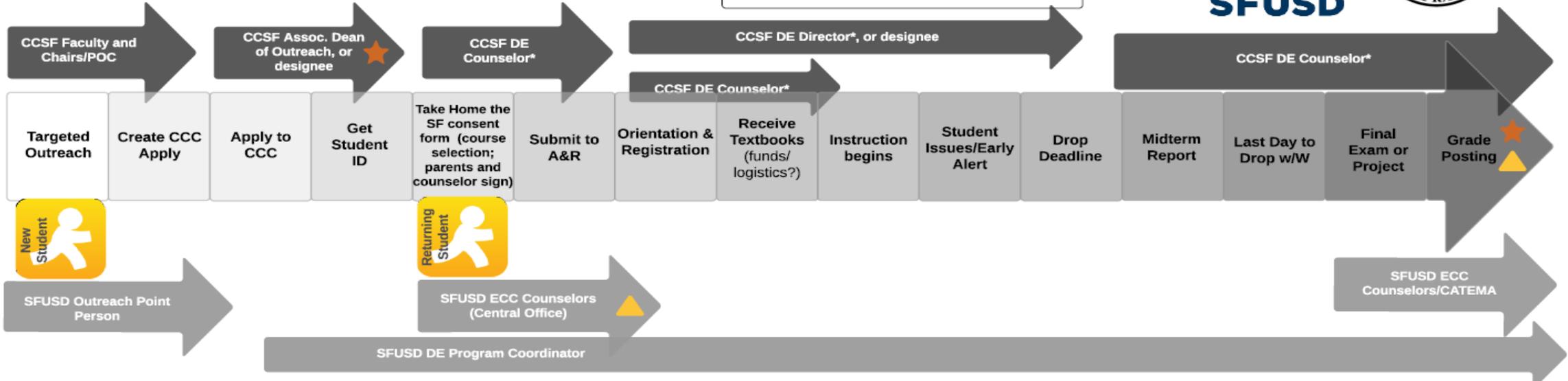
Counseling and Student Support faculty and staff can, and need, to help!

California Counseling Network (CaCN), a community of practice of K-14 counselors is working state-wide to gather and share emerging practice for colleges integrating counseling and student support services with mapping work.

# DRAFT SF CPT DE Student Development Integrated Student Support Flow Chart and Timeline

**LEGEND**

- \*Proposed Position
- ★ SFUSD Data Collection Point
- ▲ CCSF Data Collection Point



Fall/Summer (and Summer Bridge) start (more flexible)														
Outreach	CCC Apply	Receive Username and Password	CCSF Application	Receive Student ID#	Consent Form	Submit to A&R	Orientation and Course Registration	Textbook Distribution	Early Alert	Midterm Report	Last Day to Drop w/W	Final Exam	Grade	SFUSD Grade Entry onto h.s. transcript (optional)
APR/MAY							SEP	Instruction	Drop Deadline	OCT	NOV	DEC	JAN	FEB
Spring Start														
Outreach	CCC Apply	Receive Username and Password	CCSF Application	Receive Student ID#	Consent Form	Submit to A&R	Orientation and Course Registration	Textbook Distribution	Early Alert	Midterm Report	Last Day to Drop w/W	Final Exam	Grade	SFUSD Grade Entry onto h.s. transcript (optional)
NOV/DEC							SEP	Instruction	Drop Deadline	MAR	APR	MAY	JUN	AUG



# Experiential Learning



## EB CPT Work-based Learning Continuum Learning Outcomes

### Career Awareness

Learning ABOUT work.

Build awareness of the variety of careers available and the role of post-secondary education; broaden student options.

**Learning Outcomes:**

Describe a variety of career pathway options.  
Describe how basic skills such as math and reading are used in the workplace  
Explain the importance of post-secondary education and training following high school graduation

### Career Exploration

Learning ABOUT work.

Explore career options and post-secondary requirements to motivate and inform decision-making in high school and post-secondary education.

**Learning Outcomes:**

Explain basic knowledge and skills required for success in college and careers  
Connect individual skills and interests to variety of career options  
Connect the pathway experience to the workplace experience  
Describe how post-secondary education connects to a career path of interest  
Describe and use multiple resources to find jobs  
Explain the options available through and importance of post-secondary education

### Career Preparation

Learning THROUGH work.

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and post-secondary education.

**Learning Outcomes:**

Explain how the workplace functions and the skills required to succeed  
Demonstrate ability to apply for employment (write a resume, interview, complete application)  
Demonstrate appropriate business dress, behavior and etiquette  
Describe a workplace experience, the skills required to succeed  
Explain the elements and importance of workplace safety  
Demonstrate general work-related skills including collaboration, effective communication, creativity, critical thinking and taking initiative

### Career Training

Learning FOR work.

Train for employment and/or post-secondary education in a specific range of occupations.

**Learning Outcomes:**

Demonstrate knowledge AND skills specific to employment at specific site in line with specific industry standards  
Develop an informed, detailed plan for career path through post-secondary and beyond  
Utilize resources available at job site, and at post-secondary institution to support individual career plan  
Complete clinical or apprenticeship experience as needed for full employment in career field  
Explain work history and career path to others, in and outside of industry of choice

Adapted from the Linked Learning Work-Based Learning Continuum developed by the Linked Learning Alliance, available at: <http://linkedlearning.org/linked-learning-in-action/work-based-learning/>

# Sharing! Rapid Mapping & Train-the-Trainer



Career Ladders Project and ConnectED partner across the state with K-16 communities!

## Rapid Mapping Tool Kit

- Pre-work Support
- Agenda
- PowerPoint
- Handouts
- Pre-Filled Map Template

## Train-the-Trainer

- K-14/16 Faculty and Staff
- Key Talent

# Process Check, Next Steps, and Closing



# Stipends, Reflection, and Feedback

## Stipends

- Please complete W9 and photo release forms

## Reflections and Feedback

- Please complete evaluation





# NAVIGATING PATHWAYS

CCSF MAPPING SUMMIT

**Thank you!**

Katherine Bergman:

[mkbergman@careerladdersproject.org](mailto:mkbergman@careerladdersproject.org)

