

Tech Prep



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High School Students

High School Teachers

Continuing Education

Articulation

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Contacts



Prepare for
your future



Tech Prep is a College and Career Education Program that offers students the opportunity to earn college credit for eligible career technical education courses while still in high school. These courses are designed to give you the same skills you would gain by taking a similar course at one of our colleges. The credits you earn apply toward high school graduation and a college degree program, while also preparing you for a career.

Funded by Carl D. Perkins Career & Technical Education Act.

CATEMA

Articulation Certification

Quick Start Tutorial

3375 Camino Del Rio South, San Diego, CA 92108-3883 - City - Mesa - Miramar - Continuing Ed - Apprenticeship

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Revisiting Tech Prep Through Programs of Study



The San Diego Community College District Tech Prep Model

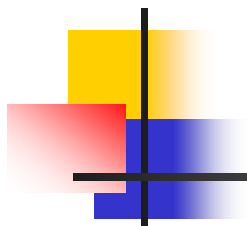
Mara Palma-Sanft

Duane Short

Overview

- Programs of study
- Building programs of study
- Tech prep articulation
- Developing tech prep agreements
- College Transition Planning





Programs of study



Programs of study

- The line between “career technical” and “academic” coursework is disappearing
- Trends in workforce necessitate a blend of traditional liberal education and vocational training
- Many “career technical” career fields require / encourage a baccalaureate degree for entry or advancement

Programs of study

A *program of study* is a multiyear sequence of courses that integrates core academic knowledge with technical and occupational knowledge to provide students with a pathway to postsecondary education and careers.



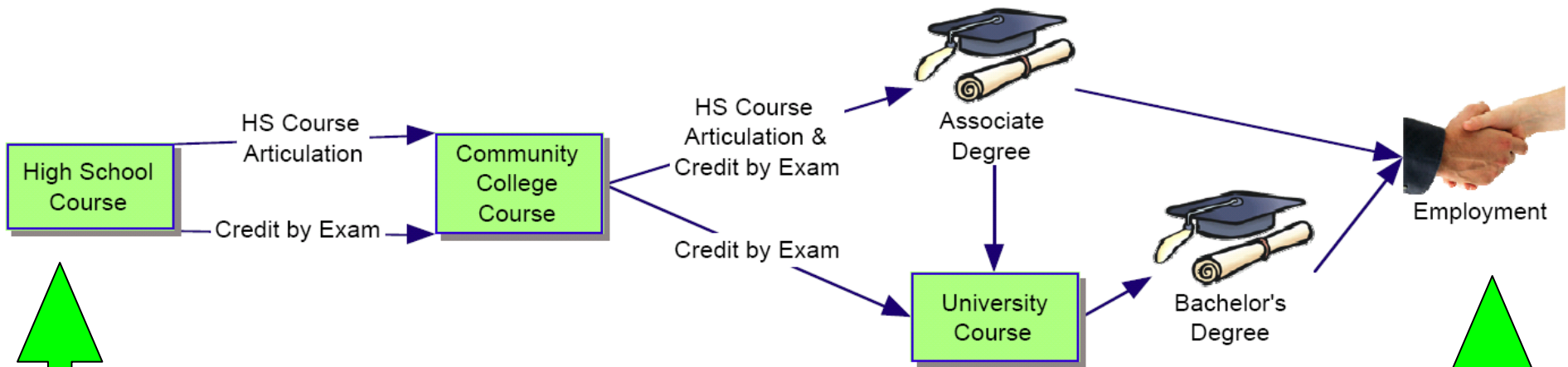


Programs of study

- Aligned to one of 15 industry sectors
- Meet requirements for one or more:
 - High school academics
 - Industry-recognized credential
 - Postsecondary certificate
 - Associate degree
 - Baccalaureate degree
- Built on a foundation of tech prep and traditional (university) articulation

Programs of study

Programs of Study: The Goal



A Program of Study describes how to get from here.....to here



Programs of study

- Could / should include:
 - Defined industry sector and career pathway
 - Chronological sequence of coursework
 - Identified career technical courses
 - Identified HS to college articulated courses
 - Matriculation information
 - Associate degree requirements / info
 - Transfer requirements / info
 - Early college experiences

Programs of study

Programs of Study: An Example



- Health Science and Medical Technology Industry Sector
 - Diagnostic Services career pathway
 - Support Services career pathway



SDCCD and SDUSD 4x4 High Schools

Health Science and Medical Technology Industry Sector



The recommended pathways below are for informational purposes only. The appropriate Counselor at each institution must be consulted for proper guidance on the recommended pathways.

DRAFT

	GRADE	ENGLISH	MATH	SCIENCE	SOCIAL STUDIES	Other Required Courses and Other H.S. CTE Electives	CAREER AND TECHNICAL EDUCATION COURSES RECOMMENDED ELECTIVE COURSES COLLEGE - PREP FOR MAJOR COURSES (Choose One Pathway Below)			
							Diagnostic Services Career Pathway		Support Services Career Pathway	
4x4 High School	9	English 1,2	Algebra 1,2		Career & Life Management 1,2	Hospital/Community Health Careers 1	Nutrition and Fitness	Computer App. In Business 1,2 (TP Credit: SDCCD CBTE 103, CBTE 120 = up to 6 units total)	Computer App. In Business 1,2 (TP Credit: SDCCD CBTE 103, CBTE 120 = up to 6 units total)	
	10	English 3,4 or Advanced Eng. 3,4 and AVID	Intermediate Algebra	Chemistry 1,2	World History	ROP Medical Occupations/ First Responder 1,2	Hospital/Community Health Careers 2,3,4		ROP Medical Assistant 1,2,3,4	
	11	American Lit. (1 sem.) or AP English (1 year)	Geometry 1,2	Chemistry 1,2	US History	ROP Medical Occupations/ First Responder 3,4	Nutrition	ROP Health Essentials 1,2	ROP Nurse Assistant/Home Health Aide 1,2	
	Junior Year - Assess college English and math readiness									
	*Prerequisite courses for College level English/math (i.e. ENG 101/ Math 96) may be necessary depending on assessment level									
	12	World Literature or English Lit. (1 sem) or AP English (1 yr.)	Pre-Calculus or Calculus		American Gov. (1 sem.) & Economics (1 sem)		ROP Medical Assistant (TP Credit: SDCCD MEDA 110 = 3 units)	ROP Health Essentials 3,4 (TP Credit: SDCCD ALLH 049 = 3 units)	ROP Medical Assistant 6,8; CC 7,8	ROP Nurse Assistant/Home Health Aide 3,4; CC 6,8
City, Mesa, Miramar Colleges	Administer Accuplacer Assessment (Necessary for Math and English Placement at SDCCD)									
	SCHEDULE AN APPOINTMENT TO DEVELOP AN EDUCATIONAL PLAN W/ A COLLEGE COUNSELOR UPON ENROLLMENT AT SDCCD									
	Certificates of Achievement that do not require completion of general education may also be available. Meet with a college counselor for more information.									
	*Prerequisite courses for College English/math may be necessary depending on assessment level							Associate Degrees (AA/AS) applicable to Diagnostic Services and/or Support Services career pathways above (60 units required for each).		
	Year 1 Semester 1	Ex: English 101 *	Ex: Math 98 *				PE	Up to 11 units can be earned in high school for CBTE 103, CBTE 120, ALLH 049 & MEDA 110		
	Year 1 Semester 2	Ex: Speech 103			Ex: Physical Science 100		Ex: Music 109			
Year 2 Semester 1	Ex: English 206			Ex: Biology 100/101	Ex: Hist 109	PE	Associate Degree: Medical Assisting			
Year 2 Semester 2					Ex: Hist 110	Ex: ANTH 108				
For information on transfer to the university: 1) meet with your SDCCD Counselor for proper ed planning 2) complete admission requirements 3) submit university application during published filing periods										

Insert SDCCD Logo

Required Courses/General Ed.	Recommended Electives	Career Technical Education Courses
Career Technical Education Courses apply to SDCCD AA/AS Degrees		
*Available through Tech Prep (TP) articulation, credit by exam and/or dual Enrollment		
Mandatory Assessments, Advising, and Additional Preparation		

* Check with your counselor to verify which SDCCD campus offers your AA/AS degree

~~SDCCD and SDUSD 4x4 High Schools~~

Health Science and Medical Technology Industry Sector

Recommended pathways below are for informational purposes only. The appropriate Counselor at each school should be consulted for proper guidance on the recommended pathways.***

MATH	SCIENCE	SOCIAL	Other Required	CAREER AND TECHNICAL EDUCATION RECOMMENDED
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Aligned to one of 15 industry sectors



Other Required Courses and Other H.S. CTE Electives	CAREER AND TECHNICAL EDUCATION COURSES RECOMMENDED ELECTIVE COURSES COLLEGE - PREP FOR MAJOR COURSES (Choose One Pathway Below)	
	Diagnostic Services Career Pathway	Support Services Career Pathway
	Hospital/Community Health	Nutrition and Computer App. in Business 1,2 (TP Credit: SDCCD CTE

Career pathways related to industry sector



Chronological sequence of coursework at HS and community college

DRAFT

	GRADE	ENGLISH	MATH	SCIENCE	
4x4 High School	9	English 1,2	Algebra 1,2		
	10	English 3,4 or Advanced Eng. 3,4 and AVID	Intermediate Algebra	Chemistry	
	11	American Lit. (1 sem.) or AP English (1 year)	Geometry 1,2	Chemistry	
	*Prerequisite courses for College English/math may be				
	12	World Literature or English Lit. (1 sem.) or AP English (1 yr.)	Pre-Calculus or Calculus		
City, Mesa, Miramar Colleges	Administer				
	SCHEDULE AN APPOINTMENT TO DEVELOP AN				
	Certificates of Achievement that do not require completion of general education courses				
	*Prerequisite courses for College English/math may be				
	Year 1 Semester 1	Ex: English 101 *	Ex: Math 96 *		
	Year 1 Semester 2	Ex: Speech 103		Ex: Science	
	Year 2 Semester 1	Ex: English 205		Ex: Science 100/	
Year 2 Semester 2					
For information on transfer to the university:					
Insert SDCCD Logo		Required Courses/General Ed.	Rec		

Career technical courses in field

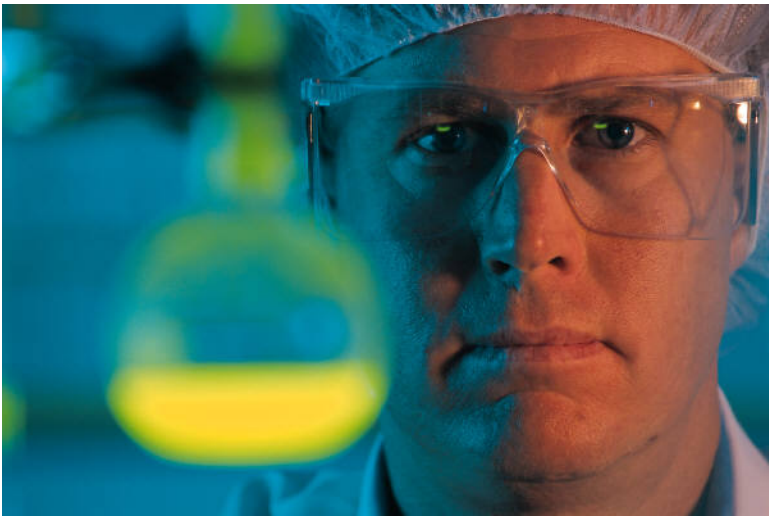
Other Required Courses and Other H.S. CTE Electives	CAREER AND TECHNICAL EDUCATION COURSES RECOMMENDED ELECTIVE COURSES COLLEGE - PREP FOR MAJOR COURSES (Choose One Pathway Below)			
	Diagnostic Services Career Pathway		Support Services Career Pathway	
	Hospital/Community Health Careers 1	Nutrition and Fitness	Computer App. in Business 1,2 (TP Credit: SDCCD CBTE 103, CBTE 120 = up to 5 units total)	Computer App. in Business 1,2 (TP Credit: SDCCD CBTE 103, CBTE 120 = up to 5 units total)
ROP Medical Occupations/ First Responder 1,2	Hospital/Community Health Careers 2,3,4		ROP Medical Assistant 1,2,3,4	
ROP Medical Occupations/ First Responder 3,4	Nutrition	ROP Health Essentials 1,2	ROP Nurse Assistant/Home Health Aide 1,2	
College English and math readiness (English 101/ Math 96) may be necessary depending on assesment level				
1 (m)	ROP Medical Assistant (TP Credit: SDCCD MEDA 110 = 3 units)	ROP Health Essentials 3,4 (TP Credit: SDCCD ALLH 049 = 3 units)	ROP Medical Assistant 5,6; CC 7,8	ROP Nurse Assistant/Home Health Aide 3,4; CC 5,6
Necessary for Math and English Placement at SDCCD)				

Tech prep articulated courses

ROP Medical Occupations/ First Responder 3,4	Nutrition	ROP Health Essentials 1,2	ROP Nurse Assistant/ 1,2
college English and math readiness			
/ Math 96) may be necessary depending on assesment level			
	ROP Medical Assistant (TP Credit: SDCCD MEDA 110 = 3 units)	ROP Health Essentials 3,4 (TP Credit: SDCCD ALLH 049 = 3 units)	ROP Medical Assistant 5,6; CC 7,8
Necessary for Math and English Placement at SDCCD)			
<u>W/ A COLLEGE COUNSELOR UPON ENROLLMENT AT SDCCD</u>			

r Colleges	12	World Literature or English Lit. (1 sem) or AP English (1 yr.)	Pre-Calculus or Calculus	American Gov. (1 sem.) & Economics (1 sem)	ROP Medical Assistant (TP) Credit: SDCCD MEDA 110 = 3 units	ROP Health Associate 3,4 (TP) Credit: SDCCD ALLH 049 = 3 units	ROP Medical Assistant 5,6; CC 7,8	R A A	
	<p align="center">Administer Accuplacer Assessment (Necessary for Math and English Placement at SDCCD)</p> <p align="center"><u>SCHEDULE AN APPOINTMENT TO DEVELOP AN EDUCATIONAL PLAN W/ A COLLEGE COUNSELOR UPON ENROLLMENT AT SDCCD</u></p> <p align="center">Certificates of Achievement that do not require completion of general education may also be available. Meet with a college counselor for more information.</p>								
	*Prerequisite courses for College English/math may be necessary depending on assesment level					Associate Degrees (AA/AS) applicable to Diagnosti Support Services career pathways above (60 units each).			

Matriculation information



Up to 11 units can be earned in high school for CBTE 103, CBTE 120, ALLH 049 & MEDA 110

Associate Degree: Medical Assisting

proper ed planning 2) complete admission requirements 3) submit university
filing periods

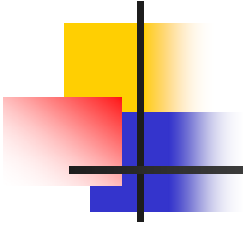
Associate
degree
information



Semester 2					
For information on <u>transfer to the university</u> : 1) meet with your SDCCD Counselor for proper ed planning 2) complete application during published filing periods					
SDCCD Logo	Required Courses/General Ed.	Recommended Electives	Career Technical Education Courses		
Career Technical Education Courses apply to SDCCD AA/AS Degrees					

Transfer information





Building programs of study



Building programs of study

- Who is involved?
 - Tech Prep Coordinator
 - Administers tech prep program
 - Coordinates with high school faculty
 - Develops agreements & advising tools
 - Articulation Officer
 - Representative of the college faculty
 - Coordinates inter-institutional agreements
 - An expert in the process, not the discipline



Building programs of study

- High school faculty
 - Develop or modify courses to be proposed for tech prep articulation
 - May administer college-approved comprehensive exam (CBE model)
- College faculty
 - Review high school (HS) course or exam
 - Sole authority for determining content comparability to college course

Building programs of study

- Building materials
 - **Blueprints:** Requirements for employment, degrees, or transfer
 - **Building blocks:** HS Course Articulation, Credit by Exam, and university articulation agreements
 - **Mortar:** Matriculation information



Building programs of study

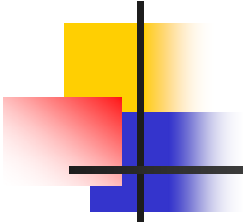
- Building technique
 - Start with the blueprint
 - Employer requirements
 - AA / AS requirements
 - Transfer requirements
 - Where possible, articulate HS courses to applicable college requirements
 - Determine matriculation needs: assessment, enrollment, etc.



Building programs of study

- Develop student advising tools
- Promote to students, faculty, staff
- Review and renew on a regular basis (1-2 years)





Tech prep articulation

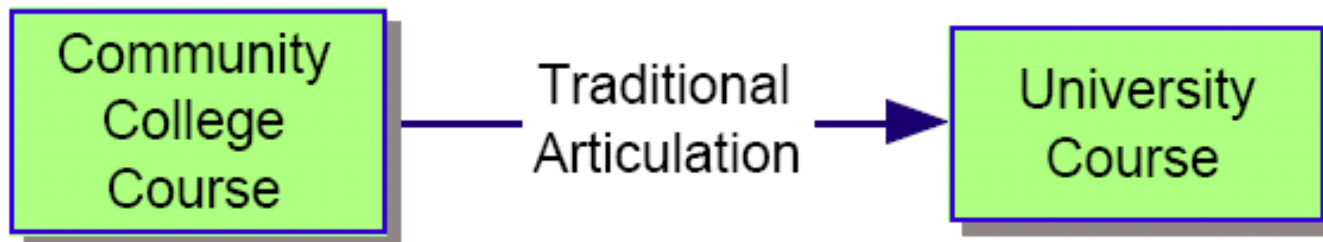


Tech prep articulation

- *Articulation* is an inter-institutional agreement that educational experiences at a “sending” institution are acceptable in fulfillment of requirements at a “receiving” institution.
- Traditional articulation agreements:
 - Community college = “sending”
 - University = “receiving”

Tech prep articulation

Traditional Articulation



Community college course accepted in lieu of university course

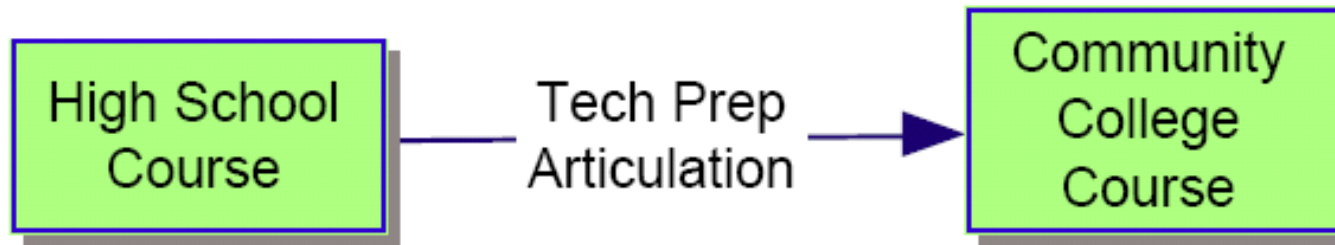


Tech prep articulation

- *Tech prep articulation* is a special type of articulation high schools and California community colleges provided for in California administrative regulation (Title 5)
- Tech prep articulation agreements:
 - High school = “sending”
 - Community college = “receiving”

Tech prep articulation

Tech Prep Articulation



*High school course or exam accepted in lieu
of community college course*



Tech prep articulation

- Two types of tech prep agreements established in CA administrative regulation (Title 5):
 - High School Course Articulation (§55753.5)
Option 1 in handbook, pg. 20
 - Credit by Examination (§55753)
Option 2 in handbook, pg. 20



Tech prep articulation

- High School Course Articulation
(option 1)
 - College credit awarded based on student's performance in a HS course
 - College faculty review HS course to determine comparability to college course
 - Required level of student performance in HS course determined by college faculty (e.g., "B" or better)

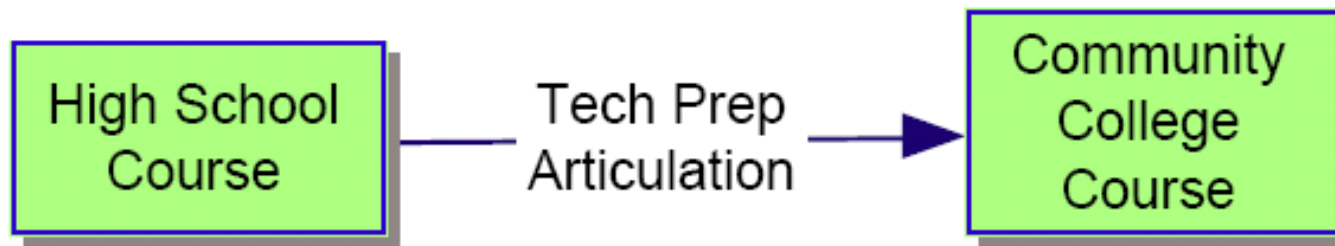


Tech prep articulation

- Credit by Examination
(option 2)
 - College credit awarded based on student's performance on an examination
 - Nature and content of exam determined solely by college faculty in the discipline
 - Exam measures mastery of college course content as per official outline of record
 - Separate exam conducted for each college course for which credit is to be granted

Tech prep articulation

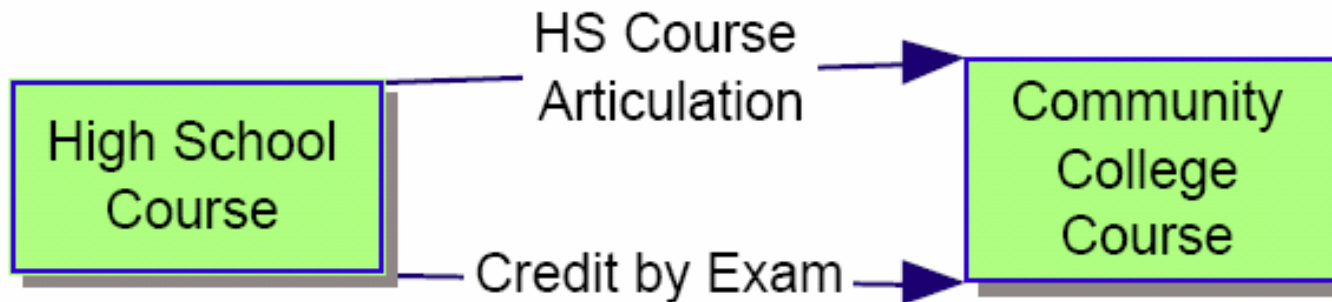
Tech Prep Articulation



*High school course or exam accepted in lieu
of community college course*

Tech prep articulation

Tech Prep Articulation



High school course or exam accepted in lieu of community college course

Tech prep articulation

- Outcomes: How will credit be applied?
 - HS Course Articulation outcomes
 - Credit by Exam outcomes





Tech prep articulation

- HS Course Articulation outcomes

Student has completed **HS coursework** accepted in lieu of the college course

- Appears on college transcript as articulation
- Fulfills same associate degree major requirements as articulated college course
- Unlikely to be accepted by most universities toward baccalaureate degree requirements

San Diego Community College District
ACADEMIC RECORD

967068

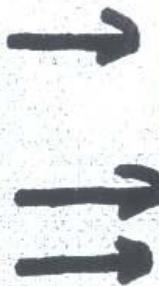
City College • Mesa College • Miramar College

01 OF 01
 12/11/07
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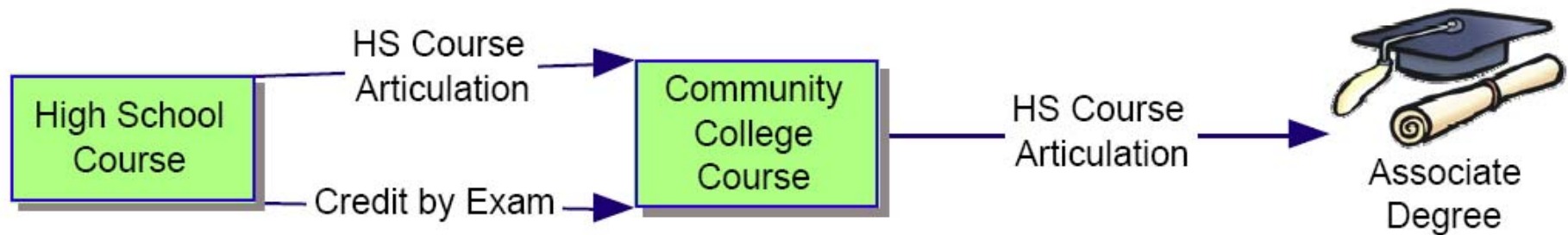
Subject/Course	Title	Units Attempted	Units Earned	Grade	Grade Points	General Education	Transfer Code	Reference Code	College
	TRANSFER AND NON-TRADITIONAL CREDIT								
	UNIVERSITY PHOENIX	9.0	9.0		36.00				
	MILITARY CREDIT	0.0	4.0		0.00				
	SERVICE SCHOOLS	0.0	8.0		0.00				
	C.L.E.P.	0.0	6.0		0.00				
	DANTES	0.0	3.0		0.00				
	SAN DIEGO COMMUNITY COLLEGE DISTRICT CREDIT								
	SUMMER 2006 ACADEMIC STATUS - 1								
ADJU 381	68TH REGIONAL ACADEMY - MOD I	15.0	15.0	A	60.00				
	SEMESTER TOTAL: GPA 4.00	15.0	15.0		60.00				
	CUMULATIVE TOTAL: GPA 4.00	15.0	15.0		60.00				

"Articulation"



Tech prep articulation

HS Course Articulation Outcome: Associate Degree



*High school course accepted in lieu of
community college course toward associate
degree major requirements*



Tech prep articulation

- Credit by Examination outcomes

Student has passed the **college course**

- Appears on college transcript as college course
- Fulfills all associate degree requirements of college course
- Accepted by universities as college course

****SAN DIEGO COMMUNITY COLLEGE DISTRICT CREDIT****

FALL 2002 ACADEMIC STATUS - 1

PSYC 133	PSYCHOLOGY OF WOMEN	3.0	3.0	A	12.00	3
SEMESTER TOTAL:		GPA	4.00			
CUMULATIVE TOTAL:		GPA	4.00			

SPRING 2003 ACADEMIC STATUS - 1

ENGL 050	ENGLISH REVIEW	3.0	3.0	B	9.00	0
ENGL 056	COLLEGE READING & STUDY SKILLS	3.0	3.0	B	9.00	3
SEMESTER TOTAL:		GPA	3.00			
CUMULATIVE TOTAL:		GPA	3.33			

FALL 2003 ACADEMIC STATUS - 1

CBTE 103	BEGINNING COMPUTER KEYBOARDING	3.0	3.0	A	12.00	2
CBTE 180	MICROSOFT OFFICE	3.0	3.0	A	12.00	2
CBTE 120	BEGINNING MICROSOFT WORD	2.0	2.0	A	8.00	2
CBTE 122	INTERMEDIATE MICROSOFT WORD	3.0	3.0	A	12.00	2
CBTE 126	DOCUMENT PROCESSING	3.0	3.0	A	12.00	2
CBTE 140	MICROSOFT EXCEL	2.0	2.0	A	8.00	2
CBTE 151	INTRO TO MICROSOFT ACCESS	1.0	1.0	A	4.00	2
CBTE 210	COMPUTERS IN BUSINESS	3.0	3.0	A	12.00	2
CISC 128	INTRO/COMPUTER PRESENTATIONS	3.0	3.0	A	12.00	2

BIOL 105	PRINCIPLES OF BIOLOGY	3.0	3.0	B	9.00	3
ENGL 051	BASIC COMPOSITION	3.0	3.0	C	6.00	1
HEAL 101	HEALTH AND LIFE STYLE	3.0	3.0	B	9.00	3
SEMESTER TOTAL:		GPA	3.63			
CUMULATIVE TOTAL:		GPA	3.56			

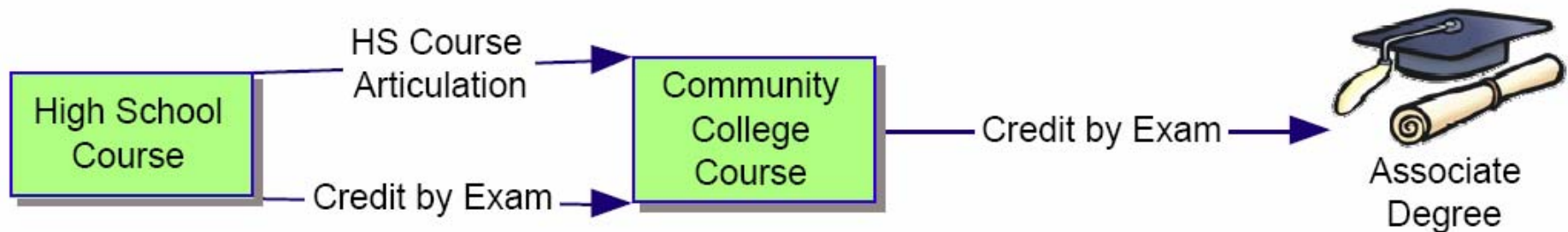
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Credit by Exam



Tech prep articulation

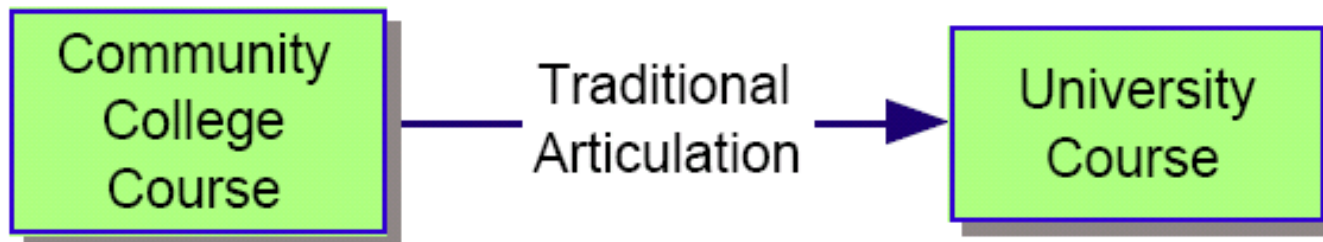
Credit by Exam Outcome: Associate Degree



College course passed via exam applies toward associate degree requirements

Tech prep articulation

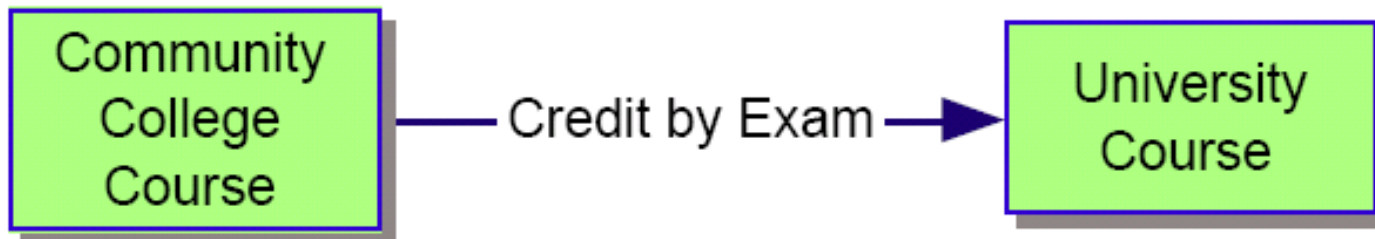
Credit by Exam Outcome: University Credit



Community college course accepted in lieu of university course

Tech prep articulation

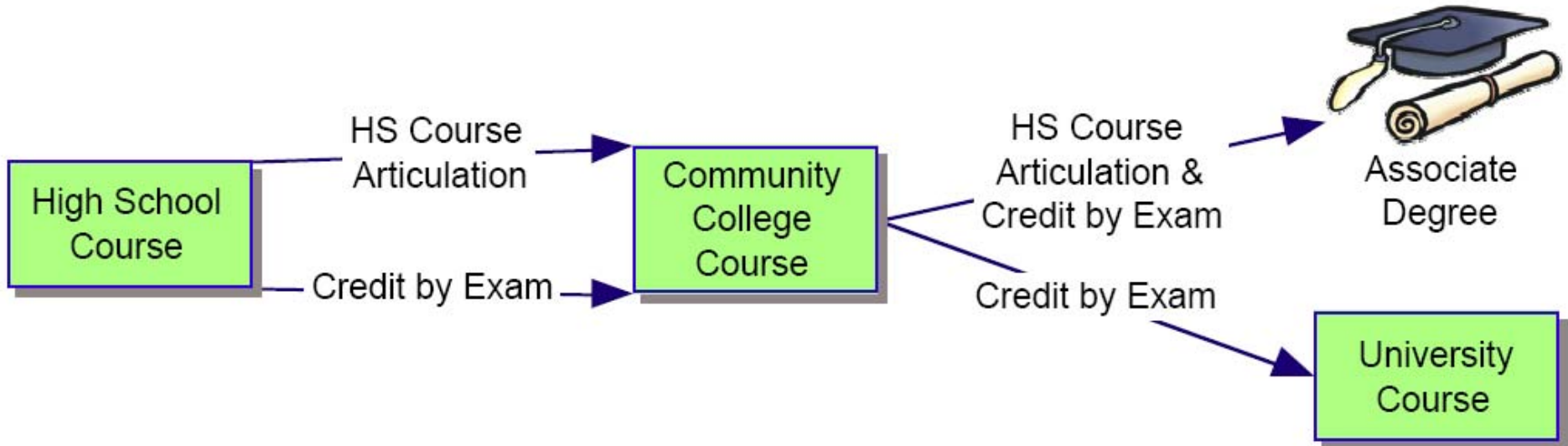
Credit by Exam Outcome: University Credit



Community college course accepted in lieu of university course

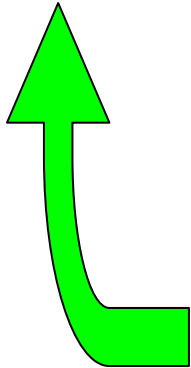
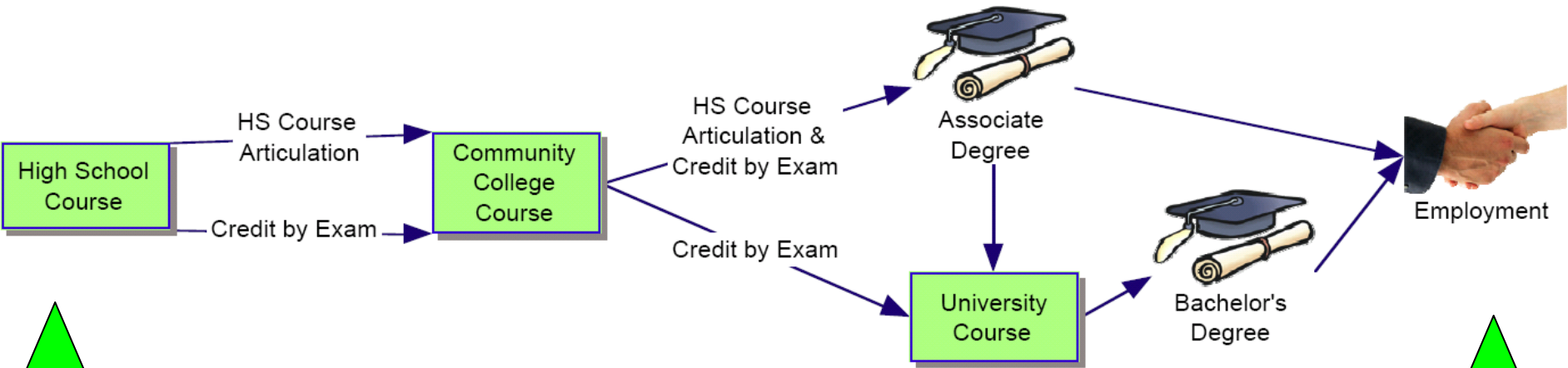
Tech prep articulation

Summary of Tech Prep Articulation Outcomes

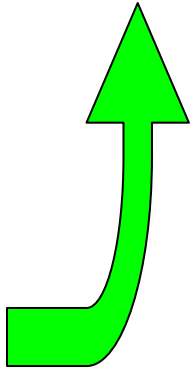


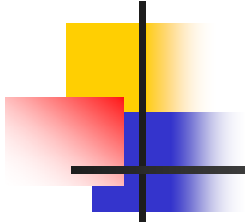
Tech prep articulation

Tech Prep Articulation applied to Programs of Study



A Program of Study describes how to get from here.....to here





Developing tech prep agreements



Developing tech prep agreements

- Steps to creating a tech prep articulation agreement
 - Identify HS and college courses where comparable instruction may occur
 - Contact Tech Prep Coordinator to initiate discussion between HS and college faculty
 - Download an appropriate articulation template to use as a guide from www.statewidepathways.org



Developing tech prep agreements

- Gather information about the HS and college courses
 - Course content and objectives
 - Student learning outcomes / objectives
 - Competencies / skill requirements
 - Reading, writing, and critical thinking assignments
 - Measurement methods
 - Textbooks and other supporting materials



Developing tech prep agreements

- Determine the most appropriate method
 - SDCCD shifted to utilizing both “HS Course Articulation” and “Credit by Exam” methods following recent Title 5 revisions
 - Selection of method is dependent on the nature of the courses, ability to create a comprehensive evaluation, and potential university articulation



Developing tech prep agreements

HS Course Articulation

- For combinations of college courses
- When development / approval of a comprehensive exam would be impractical
- For programs that may progress to "high unit" baccalaureate majors

Credit by Exam

- For single college courses
- When development / approval of a comprehensive exam would be possible
- For programs that may progress to "low unit" baccalaureate majors
- For programs that do not progress to baccalaureate level



Developing tech prep agreements

HS Course Articulation

- Based on course content
- College faculty determine comparability and required level of performance in class
- May apply to a combination of college / HS courses
- Credit applies to associate degree major requirements / certificate of achievement

Credit by Exam

- Based on examination
- College faculty determine nature and content of exam and minimum score for mastery
- Separate exam required for each college course
- Credit applies the same as the regular college course



Building programs of study from tech prep agreements

- For HS Course Articulation, determine if HS course is comparable to college course
 - Course content / objectives / critical thinking assignments are aligned to the degree that students will be successful in subsequent college courses
 - HS course has measurement methods and assessment criteria appropriate for college level credit
 - HS course has college level textbooks and supporting materials

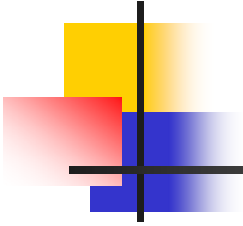


Building programs of study from tech prep agreements

- For Credit by Exam, develop a comprehensive evaluation assessing mastery of college course content and outcomes
 - Examination covers college course content as set forth in college course outline of record
 - Examination graded using equivalent grading scale to that used in college course
 - Qualitative grading done using a rubric to determine acceptable level of competency

Building programs of study from tech prep agreements

- Prepare & sign agreement
 - Should include:
 - “Sending” institution (HS)
 - “Receiving” institution (college)
 - HS course(s) or exam
 - Required grade or level of mastery
 - College course(s)
 - Type of credit (HS Articulation or CBE)
 - Must be signed at least by discipline faculty at HS and college
 - Usually also signed by articulation officer, administrator



College Transition Planning



College Transition Planning

- Programs of study help...
 - **Students** – start degree / career field requirements early
 - **Employers** – find trained and qualified job applicants
 - **HS faculty** – ensure courses fulfill multiple requirements
 - **College faculty** – establish a “pipeline” of students flowing into the college program



College Transition Planning

- HS counselor role
 - Use programs of study in student advising
 - Career exploration / preparation
 - Course advising and placement
 - College preparation
 - Internships and extracurricular activities



College Transition Planning

- College counselor
 - Use programs of study in matriculation
 - Assessment
 - Enrollment
 - Course advising
 - Use programs of study in education plan development
 - Previously completed coursework
 - AA/AS requirements
 - Transfer requirements



College Transition Planning

- HS and college faculty role
 - Use programs of study to improve and align programs
 - Curriculum development and alignment
 - Course sequencing
 - College courses offered on HS campus
 - Connect with local industry associations and employers
 - Encourage students



Conclusion

Questions?

This presentation is available for download from the SDCCD Career-Technical Pathways website at

<http://careertech.sdccd.edu>