Course Sequencing and Program Mapping

2018 Curriculum Institute

Riverside, California

Academic Senate
for California Community Colleges

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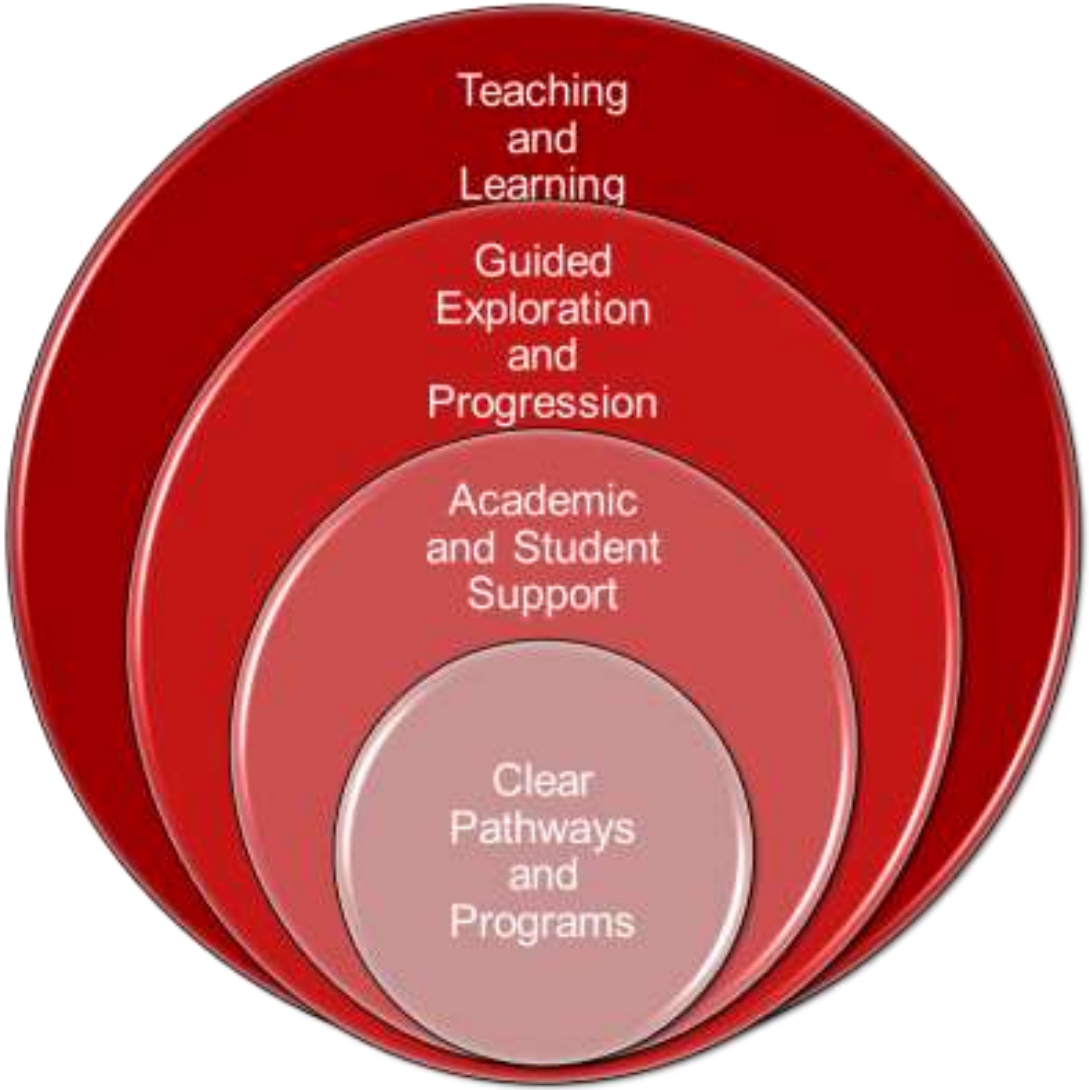
Overview

- What is a Program Map?
- How does course sequencing inform the Program Map?
- Five Design Principles for Developing Program Maps
- The Role of Curriculum
- Discussion

Program Maps Defined

- Educational program: defined in title 5, section 55000(m) as "**an organized sequence of courses** leading to a defined objective, a degree, a certificate, a diploma, a license, or transfer to another institution of higher education."
- Program Map
  - A progression of courses to complete the program; may be term-by-term or unit based
  - Provides a clear understanding of award requirements
  - Serves as a planning document to assist students in completing the required courses
- Successful program mapping is all about identifying the needs of **your** students and **your** college and then developing effective maps to meet those needs.

Program Maps and Course Sequencing form the core of Guided Pathways



Sample Program Map

- Advising Notes
  - clarify elective choices
  - Identify milestones
- Courses needed to achieve certificates and the degree are shown within the program map (C2, C4 and D)

Accounting Specialist, Austin City College

C4	C2	D	Semester 1	CR	Advising Notes
		●	EDUC 1300 - Effective Learning: Strategies for College Success	3	New ACC Students with less than 12 SCH of successful college credit must take EDUC 1300 in their first semester. Other students can choose a speech course from the Component Area Option section of the Core Curriculum Course list.
		●	MATH 1324 – Mathematics for Business and Economics	3	
		●	ECON 2302 - Principles of Microeconomics	3	
		●	BCIS 1305 - Business Computer Applications	3	
●		●	ACCT 2301- Principles of Accounting I– Financial	3	Prerequisite for the Accounting Specialist Advanced Technical Level 4 Certificate.
				15	Program Semester Hours / Meet with your advisor
			Semester 2		
		●	ENGL 2311 - Technical and Business Writing	3	
		●	Language, Philosophy, and Culture **OR** Creative Arts	3	Select from the Language, Philosophy, and Culture OR Creative Arts areas of the Core Curriculum Course list.
●		●	ACCT 2302 - Principles of Accounting II- Managerial	3	
●		●	ACNT 1371 - Business Applications in Accounting	3	
●		●	ACNT 1331 – Federal Income Tax: Individual	3	
9		15		15	Program Semester Hours / Meet with ***faculty*** advisor
			Semester 3		
●	●	●	ACNT 2303 - Intermediate Accounting I	3	
		●	ACNT 1347 - Federal Tax for Partnerships and Corporations	3	
●		●	Accounting Elective	3	AAS select Accounting elective courses from: ACNT 1372, ACNT 1391, ACNT 1393, ACNT 2304, ACNT 2330, ACNT 2331, ACNT 2332, ACNT 2333, ACNT 2376. Accounting Specialist Advanced Technical Certificate select accounting elective courses from: ACNT 1347, ACNT 2304, ACNT 2309, ACNT 2330.
		●	ECON 2301 – Principles of Macroeconomics	3	
●			Accounting Elective	3	Accounting Specialist Advanced Technical Certificate select elective courses from: ACNT 1347, ACNT 2304, ACNT 2309, ACNT 2330.
		●	ETWR 2377 - Advanced Business Communications	3	
9		15		15	Program Semester Hours / Meet with your advisor
			Semester 4		
		●	BUSG 2317 - Business Law	3	
●		●	Accounting Elective	3	AAS select Accounting elective courses from: ACNT 1372, ACNT 1391, ACNT 1393, ACNT 2304, ACNT 2330, ACNT 2331, ACNT 2332, ACNT 2333, ACNT 2376.
●	●	●	ACNT 2332 - Accounting Information Systems	3	
●	●	●	ACNT 2331 - Internal Control and Auditing	3	**ACHIEVEMENT:** Accounting Specialist Advanced Technical Certificate **ACHIEVEMENT:** Accounting Specialist Marketable Skills Award
		●	ACNT 2375 - Advanced Theory and Problems in Accounting **OR** ACNT 2388 - Internship – Accounting **OR** ACNT 1393 - Special Topics in Taxation	3	Students transitioning to the Advanced Technical Certificate-Professional Accountant must select either ACNT 1393 topic Tax Research or ACNT 2375. **ACHIEVEMENT:** Associate of Science in Accounting Specialist
30	9	15		15	Program Semester Hours
			Total Program Hours: 60		

How does Course Sequencing Inform the Program Map?

Well….how about Accreditation, for starters?

- Standard II.A.5: The institution's degrees and programs follow practices common to American higher education, including appropriate length, breadth, depth, rigor, **course sequencing**, time to completion, and synthesis of learning. The institution ensures that minimum degree requirements are 60 semester credits or equivalent at the associate level, and 120 credits or equivalent at the baccalaureate level.

- Standard II.A.6: The institution schedules courses in a manner that allows students to complete certificate and degree programs within a **period of time consistent with established expectations** in higher education.

Course Sequencing is essential in Developing Program Maps

- The most comprehensive program map in the world is useless if the student can't follow it
- Effective Course Sequencing
  - Clarifies the linear progression of core courses in the program
  - Is mindful of relationships between courses in related areas
    - Workload issues
      - e.g. is Organic Chemistry + Cell/Molecular Biology + Calculus + GE elective really feasible?
    - Possible synergy between courses
      - e.g. Organic Chemistry and Cell/Molecular Biology taken together can reinforce learning in both courses
    - gives the student a reasonable expectation that the courses identified on the map for a particular term will be available to the student on days/times that don't conflict with other courses
      - Includes electives and GE

Five Design Principles for Program Mapping

1. "Reverse Engineering" – start with the outcome
   - Review the program outline and align with outcomes
     - Transfer – how well does the program facilitate transfer to major feeder schools?
       - AD-Ts: do existing GE offerings allow for rapid completion of degree requirements?
     - CTE – how well is the program aligned with the local labor market? Does the program prepare the student for immediate employment in the field?
   - Programs with both degrees and certificates
     - can students earn certificates along the way that improve job opportunities while they pursue the higher-level degree?

Five Design Principles for Program Mapping

2. In-depth analysis of courses & course sequencing
   - Can the curriculum be streamlined?
   - Are prerequisites reasonable and validated?
   - What GE courses best support the program?

Five Design Principles for Program Mapping

3. Develop a clear understanding of your students
   - Demographics, goals, post-college placement
   - Data, data and more data
     - Answers may dismay – but continue on anyway!
     - Retrospective analyses before (and after) mapping
       - Success/retention – who leaves and when?
       - Course-taking behavior
         - Common and/or popular GE courses – why are they taking those and not others?
         - "swirlers," moving between nearby colleges to complete requirements?

Five Design Principles for Program Mapping

4. Engage the college community in the discussion
   - Students
   - Curriculum and Articulation officers
   - Counselors
   - Faculty in related or prerequisite disciplines (e.g. Math for Accounting)
   - GE Faculty
   - Administration
   - Classified staff associated with the program
   - Where appropriate, include the larger community
     - Local employers
     - University partners

Five Design Principles for Program Mapping

5. Align faculty ideal with student reality
   - How many students actually followed the map?
   - If they didn't follow the map, were there common bottlenecks or stepping-off points?
   - What process do you have in place to make changes?

Key Considerations

- Maximize the use of “stackable” certifications
- Where applicable, develop “bridges” to facilitate movement between programs
  - e.g. common core courses for programs in related disciplines
- Encourage exploration and innovation!

Tough Questions - Scheduling

- Effective course sequencing requires that courses be scheduled on days/times that allow students to follow the map
  - So… who bites the bullet on scheduling?
  - How do you plan to have this discussion at your college?

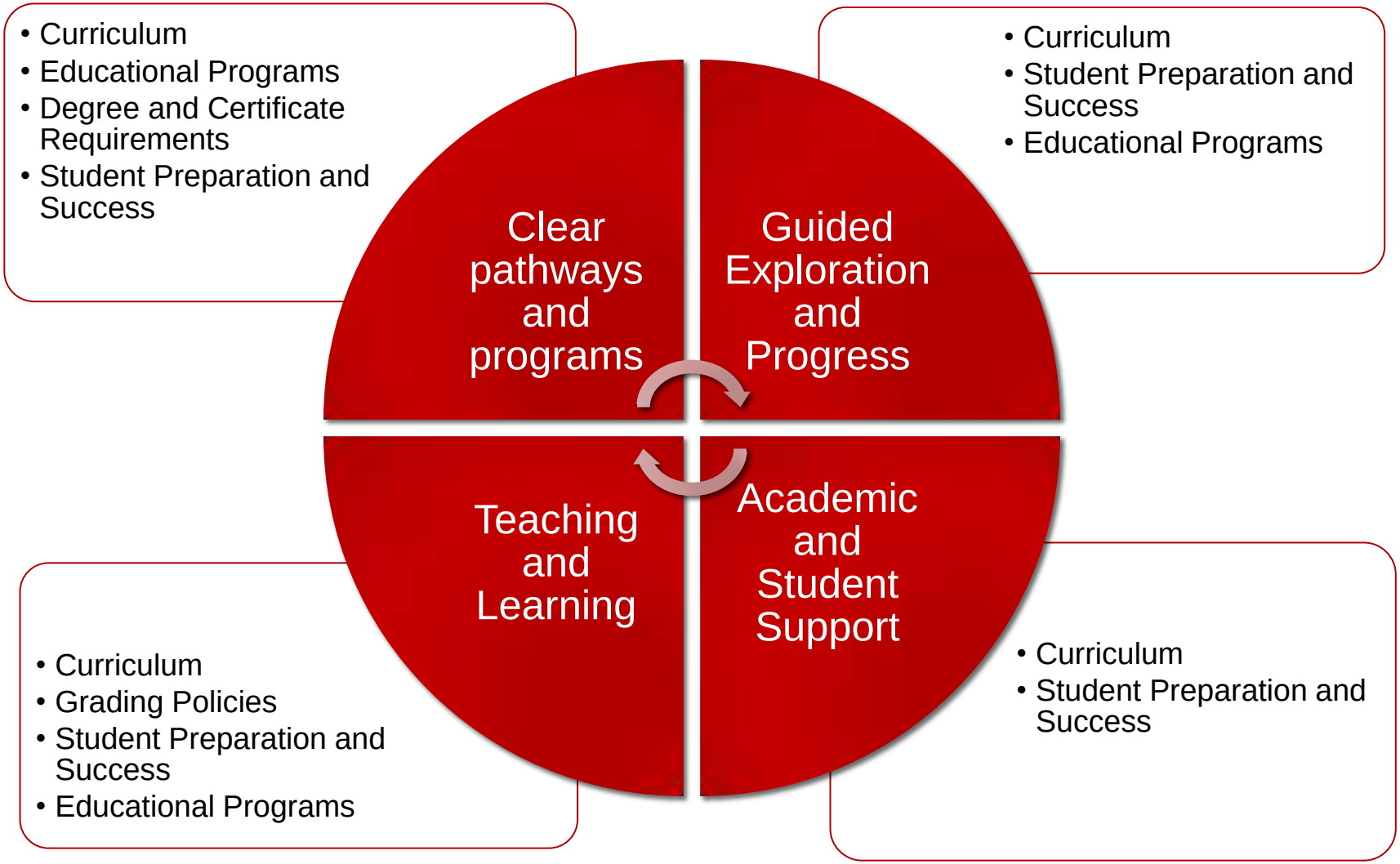
Tough Questions – Part-time Students

- Most program maps are designed for full-time students
  - **but 60-70% of our students are part-time students**
  - Prior to 2017 weren't even included in federal reporting (e.g. IPEDS)
  - Removing college-level barriers to enrollment is not sufficient
  - To close equity gaps, we must serve our students where we find them
- Could benefit most from program maps and course sequencing that maximizes their limited time
- Program maps need to be developed specifically for the part-time student
  - Targeted course sequencing
  - Advising specific to their needs

Where does curriculum fit into all this?

- Everywhere!
- The curriculum committee is the one group that is probably going to know more about what everybody else is doing
- New courses and revisions of existing courses will require expertise
  - Changes to prerequisites, addition of supplemental instruction, etc.
- Coordination with articulation
- Coordination/liaison with Senate, instructional support office, local governing board

The 10+1 and Guided Pathways



Resources

- https://www.caguidedpathways.org/resources/
- https://aacu.org/diversitydemocracy/2017/fall/bailey
- Data and Suggestions for Part-time students
  - https://go.civitaslearning.com/community-insights
  - https://www.insidehighered.com/views/2018/04/30/helping-part-time-students-complete-college-opinion

THANK YOU!

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