NRCCTE Studies of POS

Tracking Students’ Career Paths From Beginning to Completion

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NRCCTE’s Studies of POS

- National Research Center for Career and Technical Education (NRCCTE) has three studies underway of POS:
  1. South Carolina state policy examination
  2. Backward mapping from mature POS sites
  3. Experimental evaluation of student outcomes

- Each has some info to share about how sites are tracking students’ career paths—or not
1. Personal Pathways to Success

- Established through the SC Education and Economic Development Act of 2005 (EEDA)
- Designed to promote student achievement, increase graduation rates, and facilitate transitions through career planning and career majors.
- Study’s goal is to assess impact of EEDA on student outcomes and on development of POS per Perkins IV.
EEDA Requirements of HS

• Increase quantity and quality of counseling

• Develop individual graduation plans for all students in 8th grade, revised yearly
  - Records progress along a path, but to date it only goes through HS. Lists career options but not a course-specific postsecondary path to get there
### Individual Graduation Plan

**Cluster of Study:** Science, Technology, Engineering, and Mathematics  
**Major:** Pre-Engineering and Technology

#### Required Core for Graduation

*For additional college entrance requirements refer to the college of your choice.*

<table>
<thead>
<tr>
<th>24 Units Required</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Math</strong> Four Units</td>
<td>Algebra I</td>
<td>Geometry</td>
<td>Algebra II Pre-Cal Probability &amp; Stat</td>
<td>Probability &amp; Stat Algebra III Pre-Cal Calculus</td>
</tr>
<tr>
<td><strong>English</strong> Four Units</td>
<td>English I</td>
<td>English II</td>
<td>English III</td>
<td>English IV</td>
</tr>
<tr>
<td><strong>Science</strong> Three Units</td>
<td>Physical Science</td>
<td>Biology Applied Biology I Applied Biology II</td>
<td>Chemistry Environmental Science</td>
<td>Chemistry II/AP Physics Tech Physics Physics Honors/AP</td>
</tr>
<tr>
<td><strong>Social Studies</strong> Three Units</td>
<td>Global Studies I</td>
<td>Global Studies II</td>
<td>US History</td>
<td>Econ &amp; Gov</td>
</tr>
</tbody>
</table>
| **Additional State/District Requirements Ten Units** | Physical Education or ROTC (one unit)  
Computer Science (one unit)  
Keyboarding Proficiency  
Foreign Language or CATE (one unit)  
Health (one-half unit)  
Major Electives (four units)  
Electives (two and one-half units)  
Pass HSAP Exam | | | |

#### Courses for Major (Four Credits Required)

- Introduction to Engineering Design
- Principles of Engineering
- Digital Electronics
- Engineering Design and Development

#### Complementary Coursework

- Industrial Systems Technology Physics
- Business & Personal Finance
- Professional & Leadership Development
- Civil Engineering and Architecture
- Biotechnology
- Spanish 2 & Above
- Pre-Cal and above math

#### Extended Learning Opportunity Options Related to Major

- Senior Experience
- School to Work
- Shadowing
- Service Learning
- Internship
- Apprenticeship
- Student Organizations
- Dual Credit
- Project Engagement

### Professional Opportunities Upon Graduation

*For additional college entrance requirements refer to the college of your choice.*

- **High School Diploma**
  - Drafting Assistant
  - Estimator
  - Technician Illustrator

- **2-Year Associate Degree**
  - Energy Conservation and Use Technician
  - Civil Engineering Technician
  - Electrical Engineer Technician

- **4-Year Degree and Higher**
  - Civil Engineer
  - Electrical Engineer
  - Computer Science
EEDA Requirements of P2

• Address articulation agreements between secondary and postsecondary

• Make recommendations regarding coursework that is acceptable statewide for dual enrollment

• Study HS course content and rigor in order to provide a seamless pathway to postsecondary education (59-59-210)
Articulation/Dual Enrollment

• Current statewide articulation agreements exist for gen ed, AP, IB, and PLTW
• Technical Advanced Placement (TAP) – local TP articulation agreements
• HS courses that transfer to state 4-year colleges are listed in blocks in a statewide dual enrollment system
  – Blocks are both academic and CTE (e.g., business)
  – System does not include the technical colleges
2. Mature POS

- Longitudinal study of “mature” POS sites
- Will identify components and processes that are important in the successful development and implementation of POS
- Study’s goal is to provide models and guidelines for successful POS implementation at other sites
• 8 states visited based on recommendations (e.g., CCTI, ACTE).

• “Even the most well-developed POS sites are hard-pressed to give us hard numbers of Ss moving through, and when they do, it's only about things like how many Ss got dual credit.”

• Best practice: a college tracks which HS students who got college credit in HS actually enroll at the college and in which programs.
3. Experimental Study of POS

- “Random assignment” longitudinal study of student outcomes in POS
- Quasi-experimental strand in different district
- Study’s goal is to measure POS student outcomes on academic and technical measures compared to control student outcomes
• Schools are continuing tech prep and calling it POS, which works in some cases but not all
• Some sites don’t grant automatic college credit, stunting the path
• Budget cuts are delaying the development of this and many other elements of Perkins IV (i.e., assessments)
• Perkins IV is vaguely written
Perkins IV is Vague

• “May include the opportunity for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits.” Sec. 122[c][1][A][iii]

• We have seen (on paper) POS being built around academic coursework (gen ed) as the dual enrollment/credit element
Promising Corners

- **FL, WA**
  - mandatory statewide data collection systems that span education and employment sectors

- **CA’s Cal-PASS**
  - voluntary K-16 data collection system for student transition

- **AZ**
  - Dennis Fiscus!

- Maybe many more have the technology; need the incentive
What to Walk Away With

• States don’t know how many POS they have or in which career areas
• No count of how many students come to the postsecondary part of the POS from a HS
  – HS: Don’t need to know, why spend time on it
  – CC: Don’t really care, why spend time on it
• “Path accountability” must be built into Perkins if we want to track that path from secondary to postsecondary
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For more on the studies, including podcast updates, visit

www.nrccte.org