EMERGING OPPORTUNITIES ENHANCE PLTW CAPSTONE EXPERIENCE

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Assistant Superintendent
Affton School District

http://tinyurl.com/pxxv42b
SESSION DESCRIPTION

Missouri has recently become a national leader in regards to the development of programs and high schools participating in an opportunity known as CAPS (Center for Advanced Professional Studies). CAPS allows students to test-drive their future in high-skill, high-demand careers, such as engineering, healthcare, and computer science, by immersing them in a professional environment where they complete business and industry developed projects, as well as a robust internship, while mastering highly sought after employability skills. Attendees will learn how the CAPS programming model can enhance the capstone experience for PLTW students while also being inclusive of non-PLTW students.
In Regards to the PLTW Capstone Experience for Students...

If you could, what would you do to take it a step further?
Affton’s Capstone Options This Year
Engineering & Biomedical Sciences

4 Core Classes at High School → Capstone Period at High School →

2 Periods Off-Site for CAPS

2 Periods of Electives at High School
Future Capstone Options

- 4 Core Classes at High School
- Capstone Period at High School
- 3 Periods Off-Site in a Professional Workplace for Capstone + CAPS
- 2 Periods of Electives at High School
Off-Site Professional Workplace
STL Venture Works Small Business Incubator
Off-Site Professional Workplace
Off-Site Professional Workplace
CAPS Differentiators

Professional Skill Development

Real-world Projects & Internships

Business & Community Partnerships
Professional Workplace Opportunities

<table>
<thead>
<tr>
<th>Students</th>
<th>Business Partners</th>
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</thead>
<tbody>
<tr>
<td>Higher Expectations</td>
<td>Provide real-world projects</td>
</tr>
<tr>
<td>Dress Code</td>
<td>Evaluate presentations</td>
</tr>
<tr>
<td>Employability (Soft) Skills</td>
<td>Interview students</td>
</tr>
<tr>
<td>Time Management</td>
<td>Provide internships</td>
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<tr>
<td>Networking</td>
<td>Provide project feedback</td>
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<tr>
<td>Teamwork &amp; Communication</td>
<td>Guest speak and instruct</td>
</tr>
<tr>
<td>Quality of Work</td>
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</table>
OVERVIEW OF COURSE EXPECTATIONS

Students
- Team Projects
- Individual Projects
- Semester-long Internship
- Employability Skills
- Entrepreneurial Mindset
- Deep Career Exploration

Teachers
- Business Partnerships
- Higher Education Partnerships
- Guest Speakers & Instructors
- Business/Industry Visits
- Project Pipeline
- Network
Affton Advanced Professional Studies

Affton High School 2015-16

27 Senior Students

- 13 Medicine & Healthcare
- 8 Engineering
- 6 Global Business & Entrepreneurship

Career Strands

- Medicine & Healthcare
- Engineering
- Global Business & Entrepreneurship
- Technology Solutions
- Bioscience
St. Louis Center for Advanced Professional Studies
STL CAPS

Launch in 2016-17

• Multi High School Partnership
• Target Juniors & Seniors
• Public, Private & Charter Students
• 6 Global Business & Entrepreneurship

Career Strands

• Medicine & Healthcare
• Engineering
• Global Business & Entrepreneurship
• Technology Solutions
• Bioscience
Where students get to test-drive their future.
What is CAPS?

Center for Advanced Professional Studies

A programming model that aims to fast forward high school students beyond college and into high-skill, high-demand workplace environments for a profession-based learning experience that emphasizes innovation and entrepreneurship while cultivating deep application of job specific knowledge and professional skills.
The CAPS Network is Growing

2012-13
• 4 Programs
• 4 Districts
• 4 States

2014-15
• 5 Programs
• 10 Districts
• 5 States

2015-16
• 17 Programs
• 33 Districts
• 9 States
Missouri - The Show Me State
CAPS in Missouri - 5 Programs & 21 High Schools
What can we do for you?

CHANGE THE CONVERSATION
Industry Drives Teaching & Learning

Business Partners

Industry

Teachers

Curriculum

Learning

Students

Authentic Exposure

Skill Acquisition

Inquiry
- Sketch
- Digital
- 3D printer
- Build

Charm Necklace

- Concept (charity/cause)
- How it connects to customer (usage/retail)
- How it connects to product
- Materials/supplies

- Summer wearability
- Thin
- Different materials
- Customization
- Different starts

Product → Shower

Social Media

Product → Water

Social Responsibility
Download the report

State of St. Louis Workforce 2015
Examining the Opportunity Gaps
Applicant Shortcomings

- Poor work ethic: 73%
- Lack of communication or interpersonal skills: 71%
- Lack of critical thinking and problem solving: 71%
- Lack of general knowledge about business or industry: 69%
- Inability to think creatively: 66%
## Applicant Shortcomings

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Shortcomings</th>
</tr>
</thead>
<tbody>
<tr>
<td>65%</td>
<td>• Lack of technical skills specific to the job</td>
</tr>
<tr>
<td>59%</td>
<td>• Lack of teamwork &amp; collaboration</td>
</tr>
<tr>
<td>58%</td>
<td>• Lack of willingness &amp; ability to learn</td>
</tr>
<tr>
<td>54%</td>
<td>• Lack of writing skills</td>
</tr>
<tr>
<td>50%</td>
<td>• Inability to understand written &amp; graphical information</td>
</tr>
</tbody>
</table>
# Proposed Strands

Based on State of STL Workforce Report

| Global Business & Entrepreneurship | • HS Business & Marketing Courses  
|                                    | • DECA, FBLA, Independent Youth, NFTE |
| Engineering & Advanced Manufacturing | • Connects to PLTW Engineering  
|                                    | • PLTW Capstone Experience - EDD |
| Medicine & Healthcare               | • Connects to PLTW Biomedical Sciences  
|                                    | • PLTW Capstone Experience - BI |
| Technology Solutions                | • Connects to PLTW Computer Science  
|                                    | • Computer programming & software engineer |
| Bioscience                          | • Connects to plant science & biotechnology  
|                                    | • Research, development, and application |
## Strand Logistics

<table>
<thead>
<tr>
<th><strong>Core Classes</strong></th>
<th>• Students take 4 core classes at home high school (Seniors &amp; Juniors)</th>
</tr>
</thead>
</table>
| **Strand Sessions** | • A.M. 7:30 – 10:00  
• P.M. 12:00 – 2:30 |
| **Slots/Session** | • 20 – 25 Students Per Session  
• Offer Both A.M. & P.M. Session/Strand |
| **Tuition Per Slot** | • Strand Expenses/Total Students  
• Cost sharing |
The Selection Process Has...

No prerequisites

No GPA requirements

The application process is about finding the right fit.
Key Program Components

- State of STL Workforce
- Business/Industry & Higher Ed.
- Professional Workplace Learning Sites
- College & HS Credit/Scholarships
- 2.5 Hrs/Day & Semester Internship
## Senior Participation Estimates 1-5%

<table>
<thead>
<tr>
<th>County/City</th>
<th>2017 Cohort</th>
<th>Participation Estimates</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>STL City</td>
<td>2,098</td>
<td>21</td>
</tr>
<tr>
<td>STL County</td>
<td>11,175</td>
<td>112</td>
</tr>
<tr>
<td>St. Charles</td>
<td>4,626</td>
<td>46</td>
</tr>
<tr>
<td>Jefferson</td>
<td>2,832</td>
<td>28</td>
</tr>
<tr>
<td>TOTALS</td>
<td>20,731</td>
<td>207</td>
</tr>
</tbody>
</table>

*Estimates based on 2014 public school cohort enrollment data*
STL CAPS

- High Schools
- Business & Industry
- Professional Skills
- Higher Education
- Partnerships
- Projects & Internships
Questions – Answers – Feedback - Thoughts
Partnership Opportunity

St. Louis Center for Advanced Professional Studies (STL CAPS)
Multi-school partnership launching in 2016-17

If interested, visit http://afftonschools.net/stlcaps/

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