Welcome to the NRCCTE/Omaha Public Schools Programs of Study Webinar

- Thank you for joining us! We are waiting for all attendees to log in. This webinar is meant to be heard over your computer’s speakers. Please check your volume.

- The webinar will begin promptly at 2:00 pm EST.

- Video clips played during this webinar will be in WMV format. Please check you media player compatibility through the WebEx platform.

- All webinar attendees are automatically muted. Please use the chat feature to post questions to the speakers. Time has been reserved at the end of the webinar to answer your questions.

- Once we begin, if you are not able to hear the audio through your computer, you can ask to join the teleconference by clicking “Request” on the Participant's panel on the right side of your screen.
Got a question?

- Have a question for our panelists? Submit your questions through the “Chat” function, at right.
- For two weeks after the webinar, we’ll continue to receive and post answers to your questions on our website, www.nrccte.org. Email them to nrccte@louisville.edu.
- An archived version of this webinar will be available at www.nrccte.org after the event.
- Please complete a short evaluation survey after the webinar!
Our Guest Panel

NRCCTE Participants

- James R. Stone III, Director
- Ivan Charner, AED, Director, NRCCTE Technical Assistance Academy on Green-Focused POS
- Kim Green, Executive Director, NASDCTEc
- Corinne Alfeld, AED, Principal Investigator, Mature Programs of Study: A Longitudinal Analysis
- Kirsten Sundell, NRCCTE, co-PI, Rigorous Tests of CTE POS

OPS participants:

- Ken Spellman, Career Education Coordinator, OPS
- Karen Spencer-May, Human Services & Resources/Family & Consumer Sciences, OPS
- DeLayne Havlovic, Communication & Information Systems, OPS
Programs of Study

James R. Stone III, Director, NRCCTE
Perkins – “Programs of Study”

State approved programs, which may be adopted by local education agencies and postsecondary institutions to be offered as an option to students when planning for and completing future coursework, for career and technical content areas.
Programs of Study – The Law

Incorporate secondary education and postsecondary education elements; and include:

- coherent and rigorous content aligned with challenging academic standards and relevant career and technical content;
- in a coordinated, non-duplicative progression of courses that align secondary education with postsecondary education;
- . . . to adequately prepare students to succeed in postsecondary education.
Programs of Study: The Law

May include the opportunity for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits;
Programs of Study: The Law

Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.
Enhanced POS Should Include . . .

- Validated academic and industry outcomes
- Extended learning opportunities: WBL, CTSOs.
- Professional development for faculty & administrators
- Seamless articulation of technical courses
- Data collection system to document outcomes
- On-going secondary-postsecondary collaboration
- Pre-HS graduation remediation
Current thinking: POS Components

- Legislation and Policies
- Partnerships among Education, Business, and Other Community Stakeholders
- Sustainable Leadership and Shared Planning
- Rigorous Academic and Technical Standards Aligned with Curriculum and Assessments
- Aligned Secondary and Postsecondary Education Elements
- Credit Transfer Agreements
- Accountability and Evaluation Criteria
- Guidance, Counseling and Advisement
- Professional development
- Innovative Teaching and Learning Strategies
PROGRAM OF STUDY DESIGN FRAMEWORK

“A program of study is a structured sequence of academic and career and technical courses leading to a postsecondary-level credential.”
- Operational definition

Diagram:
- Legislation and Policies
- Professional Development
- Secondary Level
  - College and Career Readiness Standards
  - Curriculum and Instruction
  - Course Sequences
  - Advisement
  - Credit Transfer Agreements
  - Assessments
  - Credentials

- Postsecondary Level
- Professional Development
- Accountability
- Partnerships
- Evaluations
Programs of Study:

This October 2008 report on Programs of Study was led by
Morgan V. Lewis (NRCCTE) and Natalie R. Kosine (University of Louisville) with the assistance of Laura Overman (UofL)

Available at http://www.nrccte.org/
NRCCTE POS Research Agenda
Programs of Study: A Longitudinal Analysis

Alfeld and Charner, AED

- A look at “mature” Programs of Study
- Backward mapping to identify the key ingredients of success
- Does it incorporate all of the components for POS identified by Perkins?
- Are there other components leading to success?
- What are student outcomes?
- Longitudinal
Rigorous Tests of Student Outcomes in CTE Programs of Study

Castellano and Sundell, NRCCTE

- Assessing the effectiveness of POS in four sites (three randomized controlled trials in one state; one quasi-experiment in a second state)
- Does the POS lead to improved student outcomes compared to outcomes at control/comparison group schools?
- Effectiveness measured in ways consistent with the Perkins IV legislation
Longitudinal Study of South Carolina's Personal Pathways to Success

Smink and Drew, Clemson

- Examine the impact of a statewide implementation of a Perkins IV-type intervention and POS policy on school and student outcomes
- To what extent are integrated, career-focused programs of study developed through the state policy (EEDA)?
- What impact has the implementation of EEDA had on student high school outcomes, postsecondary employment, and education/training outcomes?
- Which aspects of EEDA or other program elements have been most instrumental in the development of integrated, career-focused programs of study?
Thank you for joining us!

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- An archived, transcribed version of this webinar will be available at www.nrccte.org after the event.
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Programs of Study in Omaha Public Schools

- **Ken Spellman**, Career Education Coordinator  
  Email: [ken.spellman@ops.org](mailto:ken.spellman@ops.org)

- **Karen Spencer-May**, Human Services & Resources/Family & Consumer Sciences  
  Email: [karen.spencer-may@ops.org](mailto:karen.spencer-may@ops.org)

- **DeLayne Havlovic**, Communication & Information Systems  
  Email: [delayne.havlovic@ops.org](mailto:delayne.havlovic@ops.org)
Program of Study Audit – Originally completed during 2007-2008 school year by Omaha Public Schools Career Education Supervisors.

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<th>Blackburn</th>
<th>Bryan Sr.</th>
<th>Burke</th>
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Program of Study: **Construction** - Careers involve building and remodeling houses, apartments, industrial buildings and other structures. This pathway also includes the builders of bridges, streets, tunnels and other infrastructure. Careers include, but not limited to: Carpenter, Electrician, General Contractor, Iron/Metalworker and Safety Director.

<table>
<thead>
<tr>
<th>Subject</th>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
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<td>English 1-2</td>
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<td>Additional Electives</td>
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<td>Construction Partnership 3-4(*),(~)</td>
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*Academy Program
**Benson
^^Burke
+++North
<<South
***Northwest
Program of Study: **Facility, Mobile Equipment Maintenance (Automotive Technology)** -

Careers involve the maintenance, repair and servicing of vehicles and transportation facilities, and the refueling of mobile equipment. Careers include, but not limited to: Industrial Equipment Mechanic, Electrician, Facility Maintenance Manager and Mobile Equipment Technician.

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<td>Algebra 1-2 or Geometry 1-2</td>
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*Academy Program  **Benson  ^^Career Center  ^^^Central  ^^North  +++Northwest
The goal of this initiative is to increase the number of dual enrollment courses that OPS Career Education students are able to access, to expose students to the rigor and relevant of college credits obtain by our students. OPS and Metro Community College entered into an agreement to lower the credit tuition for OPS students this summer. OPS Students currently pay $25 per course for dual enrollment courses. Dual enrollment courses are courses that are taught at OPS by OPS staff members. Students receive both OPS credit and Metro Community College credit.

<table>
<thead>
<tr>
<th>OPS LENGTH/COURSE #</th>
<th>OPS COURSE</th>
<th>Metro COURSE NUMBER</th>
<th>CREDITS</th>
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<tbody>
<tr>
<td>Yr/120170</td>
<td>Accounting I-2</td>
<td>ACCT 1100</td>
<td>4</td>
</tr>
<tr>
<td>Sem/120041</td>
<td>Introduction to Business</td>
<td>BSAD 1000</td>
<td>4.5</td>
</tr>
<tr>
<td>Sem/120041</td>
<td>Introduction to Business</td>
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</tr>
<tr>
<td>Sem/120041</td>
<td>Introduction to Business</td>
<td>BSAD 1000</td>
<td>4.5</td>
</tr>
<tr>
<td>Sem/181041</td>
<td>Introduction to Criminal Justice</td>
<td>CRIM 1010</td>
<td>4.5</td>
</tr>
<tr>
<td>Sem/181072</td>
<td>Police and Society</td>
<td>CRIM 2030</td>
<td>4.5</td>
</tr>
<tr>
<td>Sem/181051</td>
<td>Introduction to Law</td>
<td>LAWS 1101</td>
<td>4.5</td>
</tr>
<tr>
<td>Sem/181031</td>
<td>The Constitution</td>
<td>POLS 2060</td>
<td>4.5</td>
</tr>
<tr>
<td>YR/120300</td>
<td>Computer Info. Management</td>
<td>INFO 1001</td>
<td></td>
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<tr>
<td>YR/170250</td>
<td>CAD 1-2</td>
<td>ARCH 1100/1110 (Arch) DRAF 1100 (Mechanical) SCET 1120 (Civil)</td>
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<tr>
<td>YR/140350</td>
<td>Culinary Skills 3-4</td>
<td>CHRM 1020 CHRM 1030</td>
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<tr>
<td>YR/140360</td>
<td>Culinary Skills 5-6</td>
<td>CHRM 1210</td>
<td>4.5</td>
</tr>
<tr>
<td>YR/074060</td>
<td>Foundations of Health Careers</td>
<td>HLTH 105</td>
<td>4.5</td>
</tr>
</tbody>
</table>
OPS Culinary Program Alignment

**Partnerships**
- Teachers
- Industry Partners
- Community College Instructors

**Standards Development**
- Industry Standards
- Educational Standards (National, State and Local)

**Training for Teachers and students**
- Training Teachers and Matching Skills to Industry
- Development of Assessments to Match Industry Standards
- Career Student Organizations—ProStart, SkillsUSA
Industry Standards in Omaha Public Schools

• Industry Certifications
  – CAN (Health Science)
  – CISCO (Information Technology)
  – ACF (American Culinary Federation)

• National Program Models
  – National Academy Foundation (NAF)
    • Academy of Finance
    • Academy of Information Technology
  – Project Lead The Way (PLTW)
    • Engineering
    • Bio Tech
Professional Connections

• Career Education Advisory Board
  – Members from the Omaha community representing all six career fields

• Involvement in Education Associations
  – ACTE
  – NBEA
  – ITEA

• Involvement in Standards Writing and Development
  – Local
  – State
  – National
Career Student Organizations (CSOs)

OPS Career Education

What is Career Education?
The Omaha Public Schools Department of Career Education has a long history of preparing students for the workplace and for life. More than 15,000 students enroll in career education each year. In addition, over 300 students take part in student organizations and over 400 students are involved in internships.

Career Student Organizations

<table>
<thead>
<tr>
<th>DECA – An Association of Marketing Students</th>
<th>Future Business Leaders of America</th>
<th>Family, Career, and Community Leaders of America</th>
<th>The FFA Organization for Agricultural Education</th>
<th>Health Occupations Students of America</th>
<th>Skills USA – to ensure America has a skilled workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapters at: Benson, Bryan, Burke, Central, North, Northwest, &amp; South</td>
<td>Chapters at: Benson, Bryan, Burke, Central, North, Northwest &amp; South</td>
<td>Chapter at: Bryan</td>
<td>Chapter at: North</td>
<td>Chapter at: Career Center</td>
<td>Chapter at Bryan, Northwest, Career Center &amp; Blackburn Alternative</td>
</tr>
</tbody>
</table>
Career Specialization Programs vs. Programs of Study

**Career Specialization Programs**
- 8-courses/credits one discipline
- Courses that implement inter-disciplinary units
- Minimum of 100 students

**Programs of Study**
- 4-courses/credits one discipline
- Rigor and relevant career courses
- Courses that lead to high wage/high demand jobs
- Courses that tie to Career Clusters, Fields and Pathways
- Capstone course that may incorporate; senior projects, dual enrollment, service learning, apprenticeships, licensing or certifications
Future Enhancements

All High Schools

1. Increase graduation requirements in core subject areas
2. Provide more opportunities to earn college credits at each high school: Dual Credit and AP courses
3. Require Service Learning as a condition of graduation
Introducing the NEBRASKA CAREER EDUCATION MODEL

The diagram to the right is a visual map of the organizing structure used by Nebraska Career Education (NCE) to arrange courses that prepare individuals for a career in a specific Cluster or Pathway. These courses are offered in middle school, high school, and at two- and four-year colleges and universities.

The NCE model is built on the following sequence, each with its own specific set of knowledge and skill statements:

1. **Foundation Knowledge and Skills** (located in the center of the model) are a set of knowledge and skills common to all 16 Career Clusters.
2. **Career Fields** are listed in the ring surrounding the Foundation Knowledge and Skills. Career Fields are broad groupings of the 16 Career Clusters based on commonality among Clusters.
3. **Career Clusters** are a grouping of careers with similar skills or common themes based on industry groupings and all educational levels.
4. **Career Pathways** are listed below each cluster and further define the types of career opportunities within the Cluster.
5. **Career Specialties** (not shown on the model) are specific job titles within a Pathway within a Cluster.

For additional information, visit:
- www.necareer.org
- www.careerclusters.org
- www.nebraskaconnect.org

Developed by the Nebraska Department of Education
OPS Career Education

What is OPS Career Education?

The Omaha Public Schools Career Education has a long history of preparing students for the workplace and for life. More than 15,000 students enroll in career education each year. In addition, over 300 students take part in student organizations and over 400 students are involved in internships.

Opportunities!

There are many career education opportunities for students in the Omaha Public Schools. Our schools offer nationally recognized programs such as Project Lead the Way (PLTW), National Academy Foundation (Academy of Finance; and Information Technology), Culinary ProStart, and National Automotive Technology Education Foundation (NATEF). We also offer award-winning programs in photography, broadcasting, health occupations, building construction, and computer-aided design (CAD). College articulation and dual credit opportunities provide students with college credit and more advanced placement in post secondary courses, all of which provide students with enhanced learning opportunities about the world of work.

We look forward to working with you.

-Ken Spellman
OPS Career Education Coordinator

What students are saying about OPS Career Education:

My eBusiness class at the Career Center has prepared me for my career through teaching business ethics, social skills in the business world, character, and how to maintain professional relationships. The Career Center class is what I really look forward to. I am on time for school and have more drive for schoolwork and life in general. The Career Center has impacted me in more than just business – it has taught me how to take charge of my career plans.

Career education courses prepared me for all the demanding college courses and opportunities in the past four years of high school. By learning basic business fundamentals before entering college, I had a head start on my higher education that I use on a daily basis and will continue to use in the future.

-Katelyn, Business, Central HS

After high school I plan on going to college to study premed. I now understand that to become a pediatrician, I have to be very dedicated to what it is I want to do. My teachers greatly encourage me. They never give up on me and are always there to make sure I am on the right track.

-DaNeisha, Child Development, Central HS
Omaha Public Schools Career Education
Contact Information

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List of OPS Career Education Courses by Career Cluster Pathways

Business, Marketing & Management
- Accounting
- Business Management
- Culinary Arts
- Finance
- Marketing
- Microcomputer Office Professional

Communication & Information Systems
- CISCO Networking
- Fashion Design
- Graphic Design
- Information Technology
- Journalism & Broadcasting
- Programming & Software Development
- Technical Support Specialist
- Web Authoring & Interactive Media

Environmental & Agricultural Systems
- Horticulture
- Zoo Partnership

Health Sciences
- Health Occupations

Human Services & Resources
- Early Childhood Education
- Human Services
- Law, Public Safety & Security
- Teacher Education

Industrial, Manufacturing & Engineering Systems
- Auto Body Technology
- Automotive Technology
- CAD/Design Engineering
- Construction Carpentry
- Engineering Technology
- Materials & Processes

Internships
Paid and unpaid internships provide a short-term work experience in a chosen field of interest at an entry-level career path. These programs include structured plans whereby students in the 11th and 12th grade receive career-based instruction and related work-site experience that prepare students for a smooth transition into the workforce or post-secondary education upon high school graduation.

Career Education Student Organizations
Career Education student organizations can provide valuable leadership, career related experience and support for students. This list presents a brief description of some organizations in which OPS students can choose to participate.
A Program of Study is a... structured sequence of academic and career and technical education courses that lead to a postsecondary-level credential.
Perkins Definition of POS

Core Elements:

- Incorporate and align secondary and postsecondary education elements
- Include academic and CTE content in a coordinated, non-duplicative progression of courses
- Offer the opportunity for secondary students to acquire postsecondary credits
- Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree
Supporting Components

1. Legislation and Policies
   - Promote development and sustain partnerships

2. Partnerships among key stakeholders
   - Involvement of education and business leaders

3. Sustainable Leadership and Shared Planning
   - Common vision for POS development
   - Joint planning between education sectors
4. Rigorous Academic and Technical Standards
   - Incorporate state academic and industry-recognized standards
   - Use industry-based technical assessments

5. Aligned Secondary and Postsecondary Elements
   - Vertical and horizontal content alignment
   - Sequential coursework (moving from broad to specific)
   - Culminate in postsecondary credential, certificate or degree

6. Credit Transfer Agreements
   - College-credit earned for high school coursework
7. Accountability and Evaluation
   - Systems in place to track program outcomes
   - Yield valid and reliable data

8. Guidance Counseling and Advising
   - Provide resources to students and parents

9. Professional Development
   - Supports academic integration efforts
   - Promotes connections between secondary and postsecondary administrators and teachers/faculty
   - Communicates POS purposes and design

10. Innovative Teaching and Learning Strategies
    - Teach work readiness and SCANS skills
    - Offer project-based and work-based learning
Program Benefits

- **Relevance**
  - Rigorous academic standards
  - Industry-recognized technical content
  - Integrated academic and technical instruction
  - Context for learning

- **Alignment**
  - Curriculum and assessments connected to standards
  - Sequenced, non-duplicative coursework within and across education sectors
Program Benefits

- Enhanced Transitions
  - Diminished need for postsecondary remediation
  - Opportunities for dual credit or dual enrollment

- Career Preparation
  - Understanding of career options and coursework needed
  - Opportunities for work-based learning
Programs of Study:
A Longitudinal Analysis

Corinne Alfeld
Academy for Educational Development
Study Sample and Design

- 8 recommended sites “scouted” to look for evidence of students moving from HS to college in the POS
- 3 community colleges and their feeder high schools selected for longitudinal study
- Rich case studies of 3 communities
- “Backward mapping” of findings onto elements of POS in legislation
Sample Site Visit Questions

- Teacher & Administrator Interviews
  - Who are the stakeholders and what are their roles?
  - What were the catalysts in implementation? Challenges?
  - What would you do differently?

- Student focus groups
  - Perceptions of POS (positive/negative)
  - Role of POS in career plans
  - How can POS be improved?
Preliminary Findings

- Construction of POS need to be done by *dedicated* staff at college and/or district level
- Successful POS have active advisory committees with representation from HS, college, and local business
- Logistical challenges of dual credit overcome creatively and collaboratively in each community (give and take)
- Dual/concurrent credit should be...
  1) transcripted automatically by the college
  2) transferable to any college in the state
- HS guidance counselors need more information about POS to pass on to parents and students (get counselors “on board”)
- Strong POS do not necessarily guarantee student transition
Questions, Comments, or Suggestions?

Corinne Alfeld, Ph.D.
Academy for Educational Development
National Institute for Work & Learning

calfeld@aed.org
(202) 321-1299

Project information, reports, and podcast updates are available on http://www.nrccte.org
Future of CTE: Programs of Study

- Comprehensive vehicle to accomplish many things we have tried to do a piecemeal way

- The future of CTE?
Moving Beyond What is Required

“Change is the law of life and those who look only to the past or present are certain to miss the future.”

-President John F. Kennedy
POS are not ... 

- just relabeled, repackaged, reorganized, restructured existing courses.
New Visibility Brings Opportunity for CTE

- Incredible interest and opportunity for CTE
- POS has central role to play
- Solutions:
  - Workforce pipeline
  - Relevance
  - Academic achievement
  - College and career readiness