Statewide Model Programs of Study
Information Technology

February 8, 2022
Thank you for joining!
We will get started shortly.
Agenda

- Welcome from ICCB and EdSystems
- Background on Model POS Guides
  - Policy Alignment
  - Role of Advisory Committee
- Model POS Mapping Process
- Review of POS Guide for Information Technology
- POS in Action: Rock Valley Community College and District 214 Wheeling High School
- Feedback and Next Steps

Quick Notes

- We highly encourage you to use the Q&A and Chat Box
- This webinar is being recorded
- The slide deck link will be shared in the chat
Welcome from Illinois Community College Board

Janelle Washington
Director for CTE
EdSystems Staff

Juan Jose Gonzalez
Pathways Director

Meagan Mitchell
Pathways Manager
The EdSystems Mission
Shape and strengthen education and workforce systems to advance racial equity and prepare more young people for productive careers and lives in a global economy.

College & Career Pathways
Bridges to Postsecondary
Data Impact & Leadership

Statewide
Community Networks
Innovation
Background on Model Programs of Study
The primary purposes and goals for the Model Programs of Study Guides are to:

- Provide guidance and exemplars for local programs to adopt or customize as they develop programs of study for approval as part of the Perkins V Plan.

- Identify priority dual credit and early college courses that are foundational to the industry area and well-situated for statewide scaling and articulation.

- Define the competencies that should be sequenced across a program of study course sequence to prepare students for the future of work in that industry area.

- Identify entry points for employers to support coursework and related experiences.
Why Develop Statewide Model Programs of Study? Pt. 2

Intended audiences:

• High school faculty working in pathways
• Community College faculty and staff (e.g. academic deans & department heads, early college liaisons, etc.)
• Education for Employment System Directors

Subsequent Presentations

• February 22: Architecture, Construction, and Energy
• March 15: Finance and Business Services
• April 19: Arts and Communications
State Pathways Model

- Individualized Planning
- Career Focused Instruction
- Work-Based Learning
- Core Academics

**Secondary Pathway**
- Internships / CDE
- Stackable Credentials

**Postsecondary Pathway**
- Low-Skilled Jobs
- Semi-Skilled Jobs
- Middle-Skilled Jobs
- Advanced-Skilled Jobs
- Stackable Credentials
- AA/AAS
- BA/BS

**OUTCOMES:**
- Credential Attainment
- Labor Market / Economic Development
INDIVIDUAL PLAN

Each student completing an endorsement must have an individualized plan, which includes college planning linked to early understanding of career goals, financial aid, resume, and personal statement.

PROFESSIONAL LEARNING

Awareness, exploration, and preparation activities that provide opportunities for students to interact with adults in their workplace

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<tr>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
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<tbody>
<tr>
<td>At least 2 career exploration activities or 1 intensive experience</td>
<td>60 cumulative hours of paid or credit supervised career development experience with a professional skills assessment</td>
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</table>

At least 2 team-based challenges with adult mentoring

Through these experiences, a student gains essential employability and technical competencies in their identified sector.

CAREER-FOCUSED INSTRUCTIONAL SEQUENCE

Two years of secondary coursework, or equivalent competencies, that articulate to a postsecondary credential with labor market value. Must include at least 6 hours of early college credit.

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<th>10th</th>
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<tbody>
<tr>
<td>Orientation / Introduction</td>
<td>Skill Development</td>
<td>Capstone / Advanced Courses</td>
<td></td>
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ACADEMIC READINESS

Ready for non-remedial coursework in reading and math by high school graduation through criteria defined by district and local community college.
Policy Alignment
State Pathways Policy Framework: College, Career and Life Ready

**Accelerated Towards a Career Area**

- Multiple years of coursework, increasing commitment to the field
- Emphasis on Early college coursework in “Career-focused” subjects
- Courses go Beyond Traditional High School CTE and Industry Credentials, include Complementary General Education Courses

**Foundational Skills for All Careers**

- General employability and entrepreneurial skills embedded in HS experience
- Student have a familiarity with work-based setting and robust experience in problem-based learning

**Academically Ready for College**

- Required success in College-Level, career-focused coursework and electives
- Required placement college-level placement in Math and English (through collaboration with local Community College)
2020 Guides
- Education
- Health Sciences
- Information Technology
- Manufacturing and Engineering

edsystemsniu.org/guides

2021 Guides
- Agriculture, Food and Natural Resources
- Architecture, Construction and Energy
- Arts and Communications
- Finance and Business Services
Role of Advisory Committee

Expertise and guidance:
- What are trends in the industry that aren’t reflected in Labor Market Information?
- What credentials/degrees are emerging as most promising in the field?
- How does our desk analysis relate to on-the-ground implementation?
- What are future of work implications for this sector?

Inform key decision-points in this process:
- Pathway map approach
- Selecting strategic early college credit courses
- Identifying key competencies (building from existing State technical competencies)
Mapping Process
Model Programs of Study Mapping Process

1. Identify high-priority occupations
2. Determine promising credentials & map stackable degrees/certificates
3. Identify strategic community college courses
4. Map secondary to postsecondary sequence
5. Define related technical competencies

6 month process
Model Programs of Study Mapping Process

1. Identify High-Priority Occupations
2. Determine Promising Credentials & Map Stackable Degrees/Certificates
3. Identify Strategic Community College Courses
4. Map Secondary to Postsecondary Sequence
5. Define Related Technical Competencies
High Priority Occupations & Promising Credentials

• Using Department of Labor data and the MIT Living Wage Calculator for the State of Illinois as a reference, High Priority Occupation defined
  • Occupations with a positive growth outlook and
  • Occupations whose salaries are near or greater than the “Living Wage” of 1 Adult + 1 Child in Illinois.

• A “promising credential” is a degree or college certification that immediately prepares an individual for entry into a high-priority occupation, with a focus on credentials available in typical Illinois Community College.
  • Credential may also be a clear precursor to or stackable credential for a high-priority occupation
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<td>Accountants and Auditors</td>
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<td>Yes</td>
<td>Bachelor's Degree</td>
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<td>Business Operations Specialist</td>
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<td>Yes</td>
<td>Yes</td>
<td>Bachelor's Degree</td>
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<td>Financial Analyst</td>
<td>39.29</td>
<td>Yes</td>
<td>Yes</td>
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<td>Actuary</td>
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<td>Market Research Analysts and Marketing Specialists</td>
<td>29.15</td>
<td>Yes</td>
<td>Yes</td>
<td>Bachelor's Degree</td>
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<td>22%</td>
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<tr>
<td>Human Resource Specialist</td>
<td>28.79</td>
<td>Yes</td>
<td>Yes</td>
<td>Bachelor's Degree</td>
<td>2,230</td>
<td>6%</td>
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<tr>
<td>First-Line Supervisor of Retail Sales Workers</td>
<td>18.74</td>
<td>No</td>
<td>Yes</td>
<td>High school diploma</td>
<td>5,620</td>
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<tr>
<td>First-Line Supervisor of Office &amp; Administrative Support Workers</td>
<td>28.3</td>
<td>Yes</td>
<td>No</td>
<td>High school diploma</td>
<td>4,450</td>
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<td>First-Line Supervisor of Non-Retail Sales Workers</td>
<td>34.04</td>
<td>Yes</td>
<td>Yes</td>
<td>High school diploma</td>
<td>1,070</td>
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<td>Human Resource Assistant</td>
<td>19.49</td>
<td>No</td>
<td>No</td>
<td>Postsecondary nondegree award</td>
<td>380</td>
<td>-4%</td>
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<tr>
<td>Lodging Manager</td>
<td>21.62</td>
<td>No</td>
<td>Yes?</td>
<td>High school diploma or equivalent</td>
<td>180</td>
<td>9%</td>
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<tr>
<td>Insurance Claims and Policy Processing Clerks</td>
<td>19.94</td>
<td>No</td>
<td>Yes</td>
<td>High school diploma or equivalent</td>
<td>1,090</td>
<td>10%</td>
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</tbody>
</table>
Common CC Programs

Guided Transfer
- Business AA**^^
- Accounting AA**^^
- Actuary AA^^

Business AAS, with specialities/certs^^
- General,**
- Insurance,
- HR,**
- Entrepreneurship,**
- Management,**
- Marketing,**
- Hospitality**

Supply Chain
- Supply Chain AAS, AA/AS^^

Accounting
- Accounting AAS**^^

Leading to Occupations/Careers

Entry Level Bachelor’s Degree Positions
- Business Operations Specialist OR Financial Analyst OR Market Research Analysts OR Human Resource Specialist
- Accountants and Auditors
- Actuary

Small/Local Business
- First-Line Supervisor of Retail Sales Workers OR Office & Administrative Support Workers OR First-Line Supervisor of Non-Retail Sales Workers
- Human Resource Assistant OR Lodging Manager OR Insurance Claim Clerk

Supply Chain
- Supply Chain Manager OR Production, Planning, & Expediting Clerks

Clerk Roles
- Payroll & Timekeeping, OR, Bookkeeping, Accounting, & Auditing Clerk, OR Billing and Posting Clerks

** Aligns with ISBE CTE Program of Study Matrix

^^Degree Stacks
Model Programs of Study Mapping Process

1. Identify high-priority occupations
2. Determine promising credentials & map stackable degrees/certificates
3. Identify strategic community college courses
4. Map secondary to postsecondary sequence
5. Define related technical competencies
Identify Strategic Community College Courses

- Analyze “promising credential” program requirements at various Community Colleges in the state

- **Tally and label** all of the “career-focused” & “general education” courses across programs to determine which of these courses:
  - Are **most common** across targeted programs,
  - Are more likely **accessible** for dual credit, and
  - Have the potential for **transferability** and currency (through the Illinois Articulation Initiative) or have **industry credentials**
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Common Name</th>
<th>Prerequisites</th>
<th>IAI Code</th>
<th>Notes</th>
<th>Sum</th>
<th>Is course a key PreReq for other courses</th>
<th>IAI Course?</th>
<th>Accounting AA</th>
<th>Accounting AAS</th>
<th>Insurance AA</th>
<th>Business Administration/Advanced Certificate</th>
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<tbody>
<tr>
<td>3</td>
<td>Business 111</td>
<td>Introduction to Business</td>
<td>None</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td>1</td>
<td></td>
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<td>4</td>
<td>Business 181</td>
<td>Financial Accounting</td>
<td>Financial Accounting</td>
<td>College Level Math Plus BUS 903</td>
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<td>9</td>
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<td>4</td>
<td>Business 182</td>
<td>Managerial Accounting</td>
<td>Managerial Accounting</td>
<td>Business 181</td>
<td>BUS 904</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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</table>
Model Programs of Study Mapping Process

1. Identify High-Priority Occupations
2. Determine Promising Credentials & Map Stackable Degrees/Certificates
3. Identify Strategic Community College Courses
4. Map Secondary to Postsecondary Sequence
5. Define Related Technical Competencies
Map Secondary to Postsecondary Sequence

• Recommend early college courses reasonably accessible to HS students, goal is to at least get 6+ career-focused credit hours by HS graduation

• Keep open possibility for unique opportunities, i.e. work-based learning or capstone course

• Consider typical teacher and faculty credentials, as well as course delivery and approval processes

• Suggest initial post secondary courses and sequences that continue to accelerate student

• Recommend sequence in general education subject areas, including early college and AP supplements
Model Programs of Study Mapping Process

1. Identify high-priority occupations
2. Determine promising credentials & map stackable degrees/certificates
3. Identify strategic community college courses
4. Map secondary to postsecondary sequence
5. Define related technical competencies
Define Related Technical Competencies for Key Courses

- Select foundational courses in each Model Programs of Study area
  - Courses map to multiple credentials within the industry area,
  - Can be accessed for early college credit at secondary level, and
  - Not currently recognized by the IL Articulation Initiative (IAI)

- Determine a set of technical competencies for each course (i.e. learning objectives)
State of Illinois
Model Programs of Study Guide:
Information Technology

October 2020

Review of the Information Technology Guide
# SELECTED OCCUPATIONS, WAGES, & JOB GROWTH

<table>
<thead>
<tr>
<th>Program</th>
<th>Typical Job</th>
<th>Near or Above Living Wage Threshold for 1 Adult + 1 Child</th>
<th>Median Hourly Wage</th>
<th>Growth in Illinois: Annual Job Openings</th>
<th>Growth in Illinois: % Change Over 10 years</th>
<th>Stackable?</th>
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</thead>
<tbody>
<tr>
<td>1    Computer Information Systems and Programming</td>
<td>Computer Systems Analysts</td>
<td>Y</td>
<td>$41.67</td>
<td>2,230</td>
<td>9%</td>
<td></td>
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<tr>
<td>Computer User Support Specialists</td>
<td>Y</td>
<td>$24.27</td>
<td>220</td>
<td>11%</td>
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<tr>
<td>2    Computer Science</td>
<td>Computer and Information Systems Managers</td>
<td>Y</td>
<td>$65.12</td>
<td>1,370</td>
<td>10%</td>
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<tr>
<td>Computer Hardware Engineers</td>
<td>Y</td>
<td>$50.35</td>
<td>110</td>
<td>12%</td>
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<tr>
<td>Software Developers - Applications</td>
<td>Y</td>
<td>$45.88</td>
<td>2,690</td>
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<tr>
<td>Software Developers - Systems Software</td>
<td>Y</td>
<td>$51.63</td>
<td>1,030</td>
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<tr>
<td>Computer and Information Research Scientists</td>
<td>Y</td>
<td>$55.43</td>
<td>90</td>
<td>21%</td>
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<tr>
<td>3    Web Development</td>
<td>Web Developers</td>
<td>Y</td>
<td>$33.85</td>
<td>515</td>
<td>15%</td>
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<tr>
<td>4    Networking, Cloud Computing, and Cybersecurity</td>
<td>Computer Network Architects</td>
<td>Y</td>
<td>$56.07</td>
<td>400</td>
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<tr>
<td>Information Security Analysts</td>
<td>Y</td>
<td>$46.13</td>
<td>430</td>
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<tr>
<td>Network and Computer Systems Administrators</td>
<td>Y</td>
<td>$39.87</td>
<td>970</td>
<td>5%</td>
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<tr>
<td>Computer Network Support Specialists</td>
<td>Y</td>
<td>$29.80</td>
<td>840</td>
<td>8%</td>
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</table>

1. Living wage calculations are based on MIT’s Living Calculator ([livingwage.mit.edu](http://livingwage.mit.edu)), where the “Living Wage” for 1 Adult + 1 Child is $26.27/hour for the state of Illinois. “Near” defined as 85% of the statewide living wage, which is $22.33/hour.
2. U.S. Department of Labor, CareerOneStop ([careeronestop.org/explorecareers](http://careeronestop.org/explorecareers))
**ORIENTATION / INTRODUCTION**
Grades 9-10

- Computer Applications for Business

**SKILL DEVELOPMENT**
Grades 10-12

- Intro to Computer Info Systems or AP Computer Science Principles
- Mobile Application / Web Development Course(s)
- Hardware / Operating System Course(s) Aligned with IT Certification

**CAPSTONE / ADVANCED**
Grades 12

- Computer Science I or AP Computer Science A
- Intro to Networking Aligned with IT Certification

**POSTSECONDARY COURSES**
Recommended 1st Year

- Computer Science I
- Computer Science II
- Intro to Web Development
- Continue AS or AAS Course Sequence Aligned with IT Certification

**WORK-BASED LEARNING**

- Career Exploration (2)
- Team-Based Challenge
- Career Development Experience or Youth Apprenticeship

**If courses in this column were accomplished through early college credit, students should take the next required course in the sequence or, if none, additional AAS or Major Courses.**
<table>
<thead>
<tr>
<th>ORIENTATION / INTRODUCTION</th>
<th>SKILL DEVELOPMENT</th>
<th>CAPSTONE / ADVANCED</th>
<th>POSTSECONDARY COURSES</th>
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<tbody>
<tr>
<td>Grades 9-10</td>
<td>Grades 10-12</td>
<td>Grades 12</td>
<td>Recommended 1st Year</td>
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<tr>
<td><strong>WORK-BASED LEARNING</strong></td>
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<tr>
<td>Career Exploration (2)</td>
<td>Team-Based Challenge</td>
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<td><strong>SCIENCE</strong></td>
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<td>Science Sequence</td>
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<td><strong>SOCIAL SCIENCE</strong></td>
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<td><strong>MATH</strong></td>
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<tr>
<td>Algebra</td>
<td>Geometry</td>
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<td>College Algebra</td>
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<td>Geometry</td>
<td>Algebra 2</td>
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<td>Calculus</td>
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<td>Pre-Calculus</td>
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<td>Statistics</td>
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<td>English Composition</td>
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</table>

If courses in this column were accomplished through early college credit, students should take the next required course in the sequence or, if none, additional AAS or Major Courses.
## Strategic Dual Credit Course Competencies

### INTRODUCTION TO COMPUTER INFORMATION SYSTEMS

**Key Competencies**

<table>
<thead>
<tr>
<th>Area</th>
<th>Competencies</th>
</tr>
</thead>
</table>
| Applications and Software     | - Students can use their understanding of system software and software applications to explain the purposes and functions of operating systems, essential system utilities, general business software applications, and mobile and web-based applications.  
- Students can use their understanding of general software development to describe the life cycle of a software product from gathering requirements through deployment, maintenance, and next iteration. |
| Data and File Structures      | - Students can use their understanding of common data and file structures to move, store, reference, access, and manipulate data or files necessary to create information. |
| Hardware                      | - Students can use their understanding of computer and peripheral hardware to explain the purposes and functions of the system unit and its components, input and output devices, and physical and virtual network devices and media. |
| Information Technology and Systems | - *Students can use their understanding of fundamental IT concepts, systems, platforms, tools, and technology to understand the common roles of IT professionals.*  
- Students can use their understanding of information systems to explain the purposes and functions of transactional, management, decision support, and other system types relevant to information technology. |
| Networking and Cloud Computing | - Students will use electronic resources and research methods to read medical writings and understand the medical information contained in them.  
- Students will analyze and interpret patient records, lab reports, diagnostic summaries, etc., and the information contained in them. |
| Privacy, Security, and Ethics | - Students can use their understanding of fundamental privacy to identify and describe common and emerging privacy issues relevant to information technology and data.  
- Students can use their understanding of physical and virtual security controls to identify, describe, mitigate, and prevent basic threats to computers and data.  
- Students can use their understanding of fundamental ethics to identify and describe common and emerging ethical issues relevant to information technology, data, and artificial intelligence. |
| Programming                   | - Students can use their understanding of programming to code and debug basic programs via a graphical user interface and a command line interface. |
| Problem Solving and User Support | - Students can use their understanding of information technology and basic problem solving to identify a business problem; determine the problem’s cause(s); and create, communicate, implement, and document a plan to resolve the problem.  
- Students can use their understanding of computers and communications to assist and support computer users in addressing common hardware and software issues. |
<table>
<thead>
<tr>
<th>INTRODUCTION TO NETWORKING</th>
<th>Key Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Devices and Media</strong></td>
<td>• Students can use their understanding of networking infrastructure to explain the purposes, functions, and appropriate deployment of various network devices, media, and technology.</td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>• Students can use their understanding of system software and software applications to explain the purposes and functions of a network operating system and common network utilities.</td>
</tr>
</tbody>
</table>
| **Models and Protocols**    | • Students can use their understanding of the Open Systems Interconnect (OSI) model to identify and differentiate between OSI layers and their respective devices, protocols, and other components.  
• Students can use their understanding of TCP/IP to subnet and address an IP network.  
• Students can use their understanding of networking protocols to explain the purposes and functions of common ports. |
| **Types and Topologies**    | • Students can use their understanding of LAN and WAN to configure and monitor basic networks of each type.  
• Students can use their understanding of physical and logical network topology to compare, contrast, and deploy bus, mesh, ring, and star topologies. |
| **Security**                | • “Students can use their understanding of malware, firewall, IDS, and IPS to recognize and describe basic threats to networked computers.” - PWR  
• Students can use their understanding of physical and virtual security controls to secure basic local and wireless networks. |
| **Privacy and Ethics**      | • Students can use their understanding of fundamental privacy to identify and describe common and emerging privacy issues relevant to information technology and data.  
• Students can use their understanding of fundamental ethics to identify and describe common and emerging ethical issues relevant to information technology and data. |
| **Troubleshooting and Support** | • Students can use their understanding of troubleshooting to identify common network issues; determine an issue's cause(s); and create, communicate, implement, and document a plan to resolve the issue.  
• Students can use their understanding of networking and communications to assist and support network users in addressing common network issues. |
| **Virtualization and Cloud Computing** | • Students can use their understanding of networking and the Internet to describe the concepts of virtualization and cloud computing.  
• “Students can use their understanding of the features, benefits, and concepts of virtualization and cloud networking to differentiate among types of cloud services.” - PWR |
Model Programs of Study in Action Part 1: Rock Valley Community College
Department Overview

CIS
- Computers & Information Systems AAS (64 credits)
- C/C++ Programming (15 Credits)
- Mobile Application Development (11 credits)

PCT
- Network Systems Administration AAS (64 credits)
- Cisco Networking Certificate (17 credits)
- MS Server Administrator Certificate (9 credits)
- Network Technician Certificate (12 credits)

PCT
- Cybersecurity Specialist AAS (64 credits)
- Center for Academic Excellence in Cyber Defense (CAE-CD)
- Cisco CCNA Security Certificate (10 credits)

WEB
- Web Programming and Design AAS (64 credits)
- Web Development Certificate (16 credits)
- Web Design Certificate (14 Credits)
CHALLENGES

• HS Faculty Qualifications
  ○ Networking Pathway
  ○ Programming Pathway
• Qualified Faculty Leaving
• HS Faculty Mentoring
• Transition to new courses or new course materials for HS
SUCCESSES

• Bootcamps
• LMS class shells for College faculty & H.S. Instructors to access
• District100 partnership
• IT Networking Pathway implemented fully in 3 HS
• Exploring future pathways
• Pathway correlates to industry certifications
  ○ CompTia A+ and Network +
Dual Credit/Dual Enrollment Options

- **10th Grade Foundation Class:** CIS 102
  - Foundation to CIS and Computer Careers

- **11th Grade Articulated Credit:** PCT 262
  - Intro to Network Design

- **12th Grade Dual Credit PCT 110**
  - Network Essentials

- **12th Grade Dual Credit PCT 270**
  - Intro to UNIX/Linux

- **12th Grade Dual Credit CIS 170**
  - Programming Logic & Design

- **12th Grade Dual Credit CIS 280**
  - Programming iOS Apple Mobile Devices

**NETWORK DESIGN & TROUBLESHOOTING**

**CODING AND MOBILE APP DEVELOPMENT**
What’s Next?

• Expand or change the pathways as technology changes
  ○ Possible Cybersecurity Pathway
  ○ Move away from Mobile App Development Pathway
  ○ Updated programming pathways
• Implement pathway into additional area high schools
Model Programs of Study in Action Part 2: District 214 Wheeling High School
High School District 214

7 campus high school district with 12,000 students located in northwest suburbs of Chicago

College and Career Pathway Focused - 38 career pathways - 80+ dual credit courses 
30+ AP courses - 37,000+ Early College Credits - 950+ Industry Partners - 2,500+ workplace learning experiences

Wheeling High School

Majority-minority comprehensive high school with a STEM focus with 1,700 students. (64% Latinx, 25% white, 6% Asian, 2% black)

20% English Learners - 76% non-English home primary language - 47% Low Income - 71% First Generation

71% graduates successful in career dual credit coursework - 35% earn industry credential - 45% participate in internship or workplace learning experience - 85% graduates successfully complete AP, dual credit or transition core courses

“Empowering students and staff to explore, care, connect and grow in a changing world”
“Empowering students and staff to explore, care, connect and grow in a changing world”
# IT Pathway Certifications and Early College Credit

## Certifications
- CompTIA
  - IT Fundamentals
  - A+
  - Network+
  - Security+

## Early College Credit
- Advanced Placement
  - AP Computer Science Principles
  - Computer Science A

- Dual Credit

<table>
<thead>
<tr>
<th>College</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harper College</td>
<td>NET105 IT Fundamentals, NET111 A+ Hardware, NET112 A+ Operating Systems Technology, NET121 Computer Networking</td>
</tr>
<tr>
<td>Moraine Valley Community College</td>
<td>LAN101 Orientation to IT Careers, LAN103 Security Awareness, LAN153 IT Security Essentials - Security+</td>
</tr>
</tbody>
</table>

(Additional dual credit specific Apprenticeships)

“Empowering students and staff to explore, care, connect and grow in a changing world”
Career Pathways and Apprenticeships

Orientation and Exploration

Career Skill Development

Learning Connection and Extension

Employment in Career

Continued Education & Development

Middle School Outreach

HS coursework

AP, Dual Credit & Certification focused coursework

Internships and other introductory work-based learning

“Empowering students and staff to explore, care, connect and grow in a changing world”
D214 IT Career Pathways and Apprenticeships

Current Areas - Cyber Security Technician and IT Generalist/Help Desk

- Capstone work-based learning experience during non-traditional senior year
- Teaching and learning aligned to employment competencies through paid on-the-job training and related technical instruction
- Leverages existing work-based learning, certification and dual credit programs and post-secondary alignments

Addresses some challenges of pathway specialization vs. generalization

“Empowering students and staff to explore, care, connect and grow in a changing world”
Successes in Pathway Development

- Enrollment Growth
- Modernization of pathway offerings
- Development of relevant capstone extensions and transitions to existing pathway efforts

“Empowering students and staff to explore, care, connect and grow in a changing world”
Challenges in Pathway Development

- Teacher recruitment, certification program alignment and professional development
- Knowledge and response to industry trends and changes
- Sustaining / growing role of industry partnership

“Empowering students and staff to explore, care, connect and grow in a changing world”
What’s Next?

- Recruitment and professional development for teaching staff
- Redevelopment of orientation experiences
- Expansion of capstone work-based learning and apprenticeship experiences
- Expanding focus on aspects of DEI within pathway

“Empowering students and staff to explore, care, connect and grow in a changing world”
Something still circling in my mind is...

Something that squares with my thinking is...

3 Takeaways I have are...
Share Your Feedback

Survey QR Code

https://niu.az1.qualtrics.com/jfe/form/SV_4VhZXBPLE740vC6
Survey Questions

1. **Model Programs of Study**
   Assess the implementation of the Model Programs of Study.

2. **Advisory Committee**
   Assess the effectiveness of the committee or join an upcoming committee.

3. **Webinar Review**
   Assess the effectiveness of the Webinar session.
Next Steps:
Upcoming Statewide Model Programs of Study Webinars

Architecture, Construction, and Energy
February 22, 2022 | 2–3:30 p.m.

Finance and Business Services
March 15, 2022 | 2–3:30 p.m.

Arts and Communications
April 19, 2022 | 2–3:30 p.m.
Next Steps: Potential Statewide Model POS Guides Creation

Select from the following:

- HUMAN & PUBLIC SERVICES (Non-Education)
- HOSPITALITY & TOURISM (Culinary and Hospitality)
Explore the Resource Hub and sign up for the newsletter

Highlight and explore innovative models for work-based learning, initial focus on virtual

Build connections among communities to share best practices, learnings and resources

Identify needs for state policy changes or support systems

Engage in conversations on creating sustainable, high-quality models that provide broader and more equitable access, focusing on building social capital for Black and Latinx students
Thank You

Survey: https://niu.az1.qualtrics.com/jfe/form/SV_4VhZXbPLe740vC6
Guides: edsystemsniu.org/guides