

# Successful Student Transitions Through Programs of Study

National Career Clusters Institute  
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## Presenters

Ozarks Technical Community College  
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## Missouri's Approach to Programs of Study (POS)

- ▶ **How we got here**
  - Attended POS Institute in Chicago (April 2007)
  - Decision Point: Locally-developed POS
  - Pilot POS Projects in Ag and Health Sciences (Spring 2007)
  - Developed 10-Step Process to Implement POS in Missouri

## Missouri's State Plan Requirement

- ▶ Each Perkins eligible grant recipient is required to develop and implement at least one program of study during the life of Perkins IV (2008–2013).
- ▶ Each Perkins eligible grant recipient, in consultation with Tech Prep Consortia selects 2–3 possible Career Clusters to target for Programs of Study Development.
- ▶ “The community college meets collectively with all secondary (Perkins Eligible Grant Recipients) to agree on the Programs of Study to be developed and set a timeline and expectations of all involved.”

Resource: MCCE

**Spring 2007 Pilot**



UNIVERSITY OF  
**CENTRAL  
MISSOURI**



**State Fair**  
Community College



**A**griculture, Food &  
Natural Resources



**H**ealth Science



CAREER  
AND  
TECHNOLOGY  
CENTER



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...enabling students to reach their potential!

## Missouri's Approach to Programs of Study

- ▶ **How we got here**
  - Expanded pilot projects utilizing Tech Prep Directors as facilitators (2007-08 school year)
  - MoACTE Summer Conference 2008 – Division Presentations
  - Tech Prep directors begin work with local Perkins Grant Recipients on POS (Ongoing)

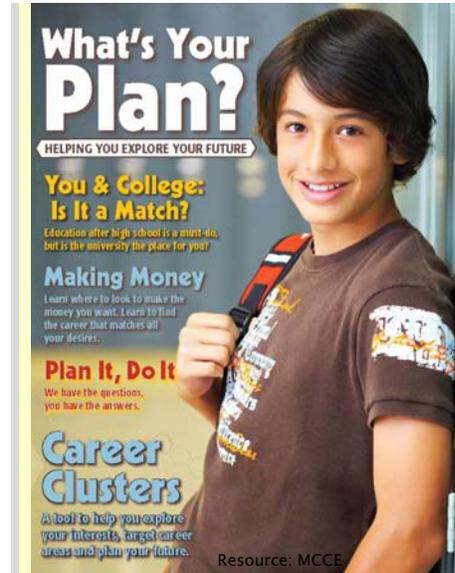
## 2008 Career Cluster Pilots

 <p>Construction Career Centers</p>	 <p>Metropolitan Community College</p>
 <p>St. Louis Community College</p>	 <p>Mineral Area College</p>
	 <p>Ozarks Technical Community College</p>



## Focus on Student Transitions

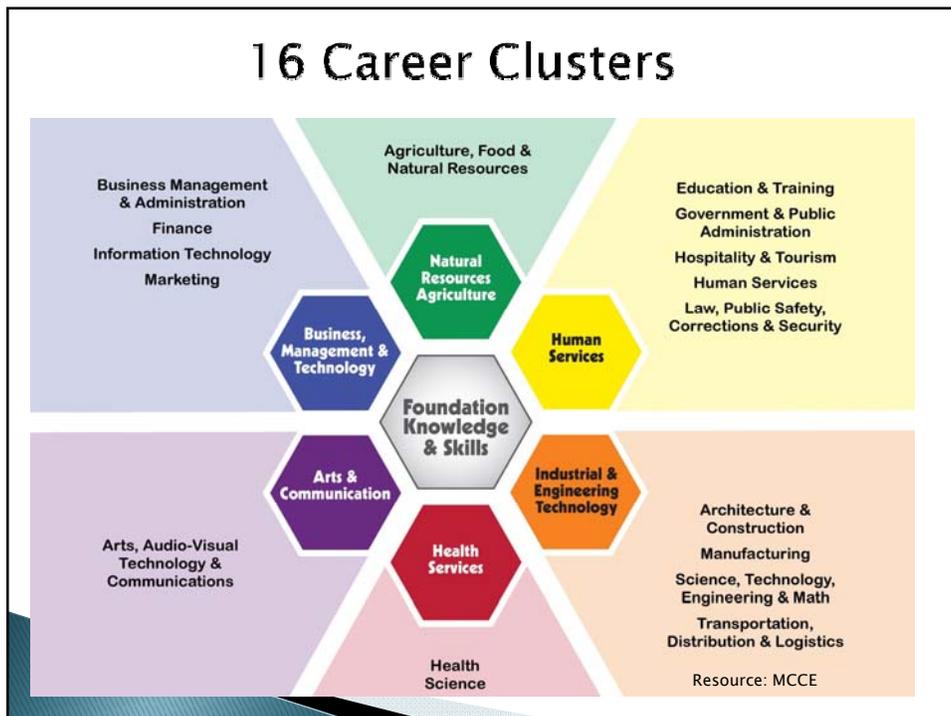
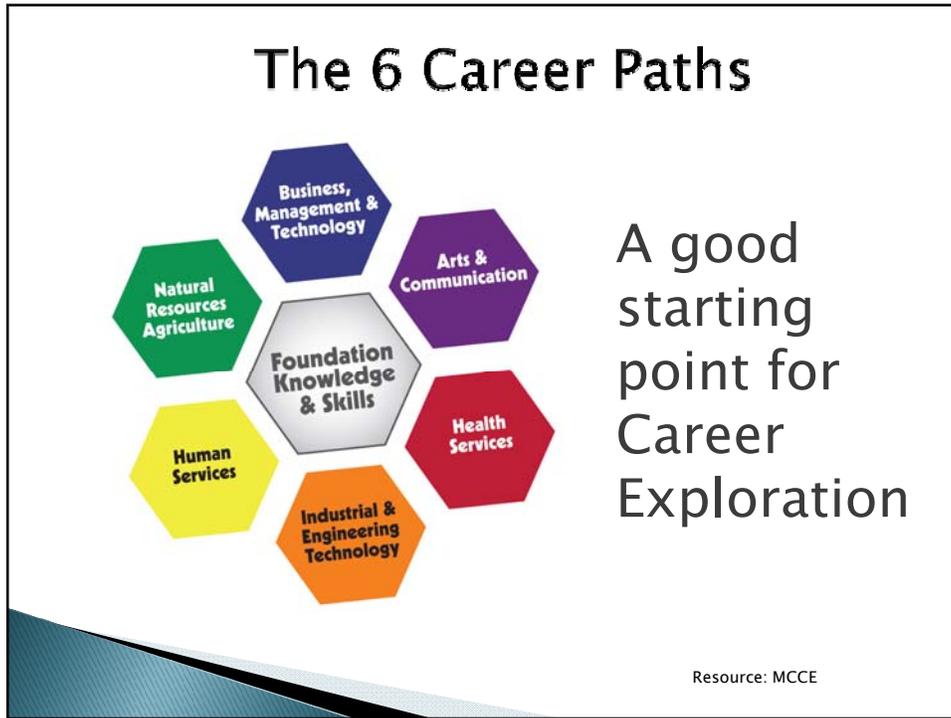
Programs of Study  
&  
Career Clusters



## Career Paths/Career Clusters

A framework for providing  
relevance using the Language of  
Career Clusters for Career  
Awareness, Exploration, Planning  
and Decision Making

Resource: MCCE



## Program of Study

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graph TD; CP[Career Path] --> CC[Career Cluster]; CC --> CWP[Career Pathway]; CWP --> POS[Program of Study]; POS --> PPOS[Personal Plan of Study];
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### Outcomes

- ▶ A sequenced listing of courses, both academic and CTE that connects student's high school and postsecondary educational experiences
- ▶ A set of course descriptions for the CTE/career pathway courses based on knowledge and skill statements
- ▶ A foundation for the Personal Plan of Study

Resource: MCCE

## Elements of a POS

- ▶ Opportunities for students to participate in dual or concurrent enrollment or acquire post-secondary credit in other ways

Lead to an industry-recognized credential or certificate at the post-secondary level or an associate or baccalaureate degree

Resource: Mackay -MCCE

## Elements of a POS

- ▶ Coordinate secondary and post-secondary curriculums
  - ▶ Ensure coherent and rigorous content
  - ▶ Align with challenging academic and technical content
- Non-duplicative progression of courses
- Utilizes strategies for student success in transitions

Resource: Mackay -MCCE

## Personal Plan of Study

Career Path

Career Cluster

Career Pathway

Program of Study

Personal Plan of Study

### Building a Foundation for Success Through Individual Planning

- ▶ Based upon chosen career path or career cluster
- ▶ Built from school-approved Programs of Study
- ▶ Coursework map includes graduation requirements and appropriate work-based learning experiences
- ▶ Developed cooperatively with student, counselor, teachers and parents.
- ▶ Reviewed at least annually and revised as needed

Resource: MCCE

## Key Elements in Developing Personal Plans of Study

- ▶ Graduation requirements
- ▶ Staff involvement
- ▶ Group/individual participation
- ▶ Regular review and revision as necessary
- ▶ Parental involvement
- ▶ Academic, interests, and abilities assessments
- ▶ Student participation in school and community involvement
- ▶ Linkage to postsecondary experiences

Resource: MCCE

## Personal Plan of Study: Sample Template (Schools will have their own models)



SAMPLE

Agriculture, Food and Natural Resources: Agribusiness Systems  
Career Pathway Plan of Study for ▶ Learners ▶ Parents ▶ Counselors ▶ Teachers/Faculty

This Career Pathway Plan of Study based on the Agribusiness Systems Pathway of the Agriculture, Food and Natural Resources Career Cluster can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. \*This Plan of Study, used for learners at an educational institution, should be customized with course titles and appropriate high school graduation requirements as well as college entrance requirements.

EDUCATIONAL LEVEL	English/Language Arts	Math	Science	Social Studies/Sciences	Other Electives Recommended Electives Learner Activities	*Career and Technical Courses and/or Degree Major Courses for Agribusiness Systems Pathway	SAMPLE Occupations Relating to This Pathway
Interest Inventory Administered and Plan of Study Initiated for all Learners							
SECONDARY	9 English/Language Arts I	Algebra I	Earth or Environmental Science	State History Civics	All plans of study should meet local and state high school graduation requirements and college entrance requirements. Supervised Agricultural Experience (SAE) and participation in appropriate FFA activities support and reinforce classroom and laboratory learning and should be a requirement for all students.	Introduction to Agriculture, Food and Natural Resources Introduction to Agricultural Marketing, Business and Entrepreneurship Accounting Agricultural Business Management	<b>Occupations Requiring Postsecondary Education</b> Agricultural Chemical Dealer Agricultural Products Buyer-Distributor Bank/Loan Officer Dairy Herd Supervisor Entrepreneur Farm Manager Farmer-Rancher-Feedlot Operator Feed-Supply Store Manager Field Representatives for Bank, Insurance Company or Government Program Livestock Manager Sales Manager Salesperson
	10 English/Language Arts II	Geometry	Biology	U.S. History			
	11 English/Language Arts III	Algebra II or other math course	Chemistry or other science course	World History			
12 English/Language Arts IV	Statistics or other math course				Agricultural Economics Internship in Agribusiness		
Articulation/Dual Credit Transcribed-Postsecondary courses may be taken/moved to the secondary level for articulation/dual credit purposes.							
POSTSECONDARY	Year 13 English Composition	Algebra	Chemistry	American Government	All plans of study need to meet learners' career goals with regard to required degrees, licenses, certifications or journey worker status. Certain local student organization activities may also be important to include.	Introduction to Agr/Business Principles of Agr/Business Agricultural Economics Agricultural Salesmanship Agricultural Finance Agricultural Advertising/Merchandising	<b>Occupations Requiring Baccalaureate Degree</b> Agricultural Community Broker Agricultural Economist Agricultural Educator Agricultural Lender Banker/Loan Officer Farm Investment Manager Produce Commission Manager
	Year 14 Speech/Oral Communication		Biological Science or Botany	American History Geography			
	Year 15 Technical Writing	Statistics		Psychology			
	Year 16	Continue courses in the area of specialization.					



Project funded by the U.S. Department of Education (W0518020001)

SAMPLE

Resource: MCCE

## **An Individual Planning Resource for All Students**

### **MissouriConnections.org**

Web-based educational and career planning tool that assists schools in the implementation of the individual planning process.

- Research-based Assessments
- Career Portfolio with resources aligned to Career Paths, Clusters, and Pathways
- Career information, search, and comparison tools
- Postsecondary education information, search, and comparison tools
- Education Planner for meeting graduation requirements
- Résumé builder, job interview tips, and more for workforce preparation

## **Assignment from DESE**

- ▶ Develop a Program of Study
- ▶ Produce a Personal Plan of Study
  - Career Cluster model
  - CCTI model

## Tech Prep Coordinator

- Facilitate POS using the 10-Step Process
- Provide training and materials to Secondary & Post-Secondary
- Meet with Secondary and Post-Secondary to discuss procedures/roles/alignment tables
- Coordinate meetings
  - Individual schools
  - Group meetings
- Coordinate articulation and transitions

## Post-Secondary

- ▶ Meetings
- ▶ Buy-in of POS & 10-Step Process
- ▶ Completion of POS Alignment Tables
- ▶ Created additional ACF Alignment Table
- ▶ Created a Rating Scale based on Bloom's Taxonomy used with Alignment Tables
- ▶ Provided explanation of Knowledge and Skills expectations as related to Rating Scale

## Post-Secondary

- ▶ Assess individual school's alignment tables
- ▶ Created a procedure for articulation/credit by exam options by providing an assessment for students entering the Culinary Arts Program
- ▶ Provide additional training for secondary instructors based on input
- ▶ Presented POS process at SLCC in-service to assist other CTE programs on POS
- ▶ Presented at MOACTE

## Secondary

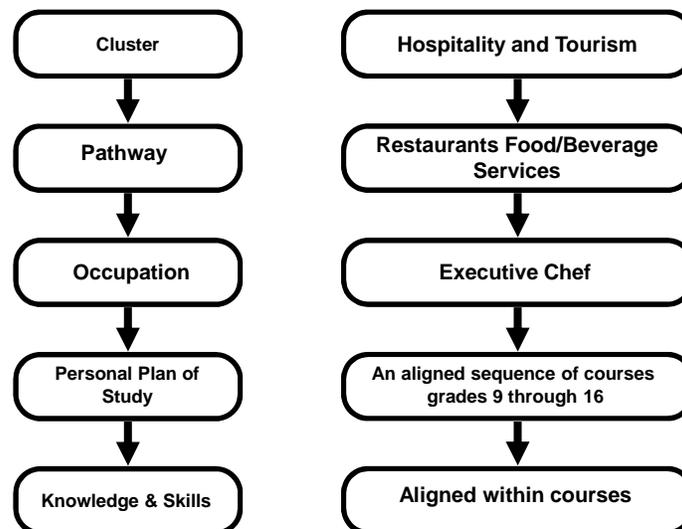
- ▶ Professional Development – Career Clusters/Career Paths
- ▶ Meeting with SLCC and FACS instructors
- ▶ Completed alignment tables (twice, due to rating scale)
- ▶ Meeting with SLCC, DESE, FACS, and Counselors
- ▶ Provided input on improving POS process and training
- ▶ Made presentation at MOACTE Conference
- ▶ Provided follow up with industry advisory committee

## St. Louis Community College

### ▶ Lessons Learned:

- Post-Secondary need to take “**LEAD**” in POS
- Informational Meeting **First** with Training
- Alignment tables need to be completed before meeting
- Schedule meetings with all instead of individually
- **Changes** will occur with articulation
- The **College** needs to administer the end of Program Assessments vs. End of Course to secondary students
- **FIRST** – Develop a Process for POS, to include for post-secondary programs; Tech Scan, DACUM, WIDS/SCIDS
- Every partner **MUST** be in agreement with POS

## How the Framework Functions





**SSD** North Technical High School  
1700 Derhake Road • Florissant, Missouri 63033 • 314.989.7600 • www.ssd.k12.mo.us



Course Name/Number/Level	Hospitality Program				Other	*
	K&S Achieved	CTP/OS/Entrepreneur	Academic	RATING		
<b>Ethics and Legal Responsibilities</b>						
1. Statement: Examine and review ethical and legal responsibilities as they relate to guests, employees and conduct within the establishment to maintain high industry standards.						
1.1. Performance Element: Examine all comments and suggestions from the customer service area to formulate improvements and ensure guests satisfaction.						
1.1.1. Measurement Criteria: Detail ways to achieve high rate of positive comments.						
1.1.2. Measurement Criteria: Get regular feedback from guests and staff.						
1.2. Performance Element: Achieve an awareness of applicable legal policies to comply with laws regarding hiring, harassment and safety issues.						
1.2.1. Measurement Criteria: Demonstrate understanding of legal interviewing processes.						
1.2.2. Measurement Criteria: Outline how harassment and stereotyping can create an unhealthy work environment.						
1.2.3. Measurement Criteria: Define legal and ethical responsibilities for safety procedures.						
1.2.4. Measurement Criteria: Interpret workman's compensation requirements and forms.						
1.3. Performance Element: Interpret ethical and legal guidelines relating to job performance to solve legal or ethical issues.						

## Alignment Table

## Rating Scale



RATING SCALE FOR THE PROGRAM OF STUDY TEMPLATES

- 0 The student has had no exposure to the material.
- 1 The student has had some exposure to the material and has the ability to gather and store basic information.
- 2 The student has had moderate exposure to the material. At this level the student has the ability to display a level of comprehension, which allows the student to apply knowledge to solve problems.
- 3 The student has had a significant amount of exposure to the material. At this level the student has the ability to provide an in depth analysis of the material. The student should display a level of analysis and application to differentiate elements of the material, which leads to solving problems and creating unique solutions.
- 4 The student has had the maximum exposure to the material. At this level the student should display a level of comprehension, analysis, application to problem solve, and create unique solutions to real world situations.

## SLCC PPOS

		COLLEGE: St. Louis Community College				CLUSTER: Hospitality & Tourism						
		HIGH SCHOOL(s): North Technical High School				PATHWAY: Restaurants & Food/Beverage Services						
						PROGRAM: AAS Hospitality Studies; Culinary Arts						
		<b>REQUIRED COURSES</b>										
ADULT LEARNER ENTRY POINTS	SECONDARY	GRADE	ENGLISH	MATH	SCIENCE	SOCIAL	RECOMMENDED ELECTIVE COURSES		OTHER ELECTIVES OR CTE COURSE			
		9	English 1	Algebra I	Biology	American Government	Physical Education	Personal Finance	Key Board	Spanish		
		10	English 2	Geometry	Chemistry	World History	Health	Elective	Science	Spanish		
		After 10th grade, assess for college readiness; provide academic/career advising and apply appropriate enrichments (ACT Plan)										
		11	English 3	Algebra II	Micro-biology	US History	Professional Proficiency	Chef I	Chef I	Chef I		
	After 11th grade, assess for college readiness; provide academic/career advising and apply appropriate enrichments (ACT or Accuplacer)											
	12	Senior English	PreCalculus	AP Biology	AP History	Professional Proficiency	Chef II	Chef II	Chef II			
	Administer college placement exam (reading, math, and writing) and other assessments to determine academic readiness and career skill preparedness; provide academic/career advising and additional preparation.											
	POSTSECONDARY	PREREQ	ENGLISH	MATH	SCIENCE	HUMANITIES	CAREER AND TECHNICAL EDUCATION COURSES					
		Year 1 1st Semester	College Composition I (ENG-101)	Elementary Applied Math (MTH-108)			Introduction to Hospitality Industry (HRM 134)	Safety & Sanitation (CUL 101)	Food Preparation Theory (CUL 105)	Problems of Hospitality Management (HRM 201)	Purchasing (HRM 112)	
Year 1 2nd Semester				Physical Science Lecture (PSI-101)	PE	Food Preparation Practical (CUL 110)	Food Preparation Practice II (CUL 116)	Bakeshop Basics for Culinary Arts (BAP 150)	Nutrition (HRM 129)	Operational Costs (HRM 205)		
Summer Semester					PE							
Year 2 1st Semester					General Psychology (PSY-200)	Sandwich Mgr (CUL 201)	Global Cuisine (CUL 205)	Multicultural Cooking (CUL 210)	American Regional Cuisine			
Year 2 2nd Semester		Oral Comm I (COM-101)			Missouri State Requirement (XXX-xxx)	Restaurant Operations (CUL 250)	HRM elective (XXX-xxx)					
<b>Required Courses</b> <b>Recommended Elective Courses</b> <b>Other Elective Courses</b> <b>Science and Technical Education Courses</b> <b>Credit-Based Transition Programs (e.g. Dual/Concurrent Enrollment, Articulated Courses, 2+2)</b> <b>Mandatory Assessments, Advising, and Additional Preparation</b>												


  
 Funded by the U. S. Department of Education (V0518020001)

## Ozarks Technical Community College

- ▶ Lessons Learned:
  - **One person** needs to take charge and drive the process
  - Requires **buy-in** from everyone involved
  - Materials **should be** in electronic format, generally they were not in electronic format
  - **Needs constant revision**—everything changes!

# Alignment Table



Springfield Public Schools-Parkview	Pathway Knowledge and Skills				Business, Management & Administration			Other
	K&S Achieved	Marketing I	Marketing II	Business Concepts				CTSO Exam Academic
<b>Pricing</b>								
1. Pathway KS Statement: Apply a variety of approaches to determine the appropriate price for a product/service.								
1.1. Performance Element: Use different pricing methods to calculate the price of a product/service.	X							
1.1.1. Measurement Criteria: Explain the importance of break-even point and its role in pricing.		X						
1.1.2. Measurement Criteria: Determine the best approach to price of a product using the elements of cost-based pricing, demand-based pricing, competition-based pricing, psychological pricing, promotional pricing.			X					
1.2. Performance Element: Determine company goals and external issues necessary to determine pricing.								
1.2.1. Measurement Criteria: Explain the importance of return on investment (ROI) and apply it to pricing of a product/service.								
1.2.2. Measurement Criteria: Identify and apply the goals of market penetration/market share of the company.		X						
1.2.3. Measurement Criteria: Identify and apply the global influences and the impact on pricing.								
1.2.4. Measurement Criteria: Identify government regulations, their cost and integrate the cost into pricing.		X						
2. Pathway KS Statement: Relate factors that influence price to a product's price.								

# Personal Plan of Study-PPOS

COLLEGE: Ozarks Technical Community College  
DEGREE: Associate of Arts-Business Emphasis  
HIGH SCHOOL(s): Springfield Public School District

CLUSTER: Marketing  
PATHWAY: Marketing Communications and Promotion  
PROGRAM: Business & Marketing

ADULT LEARNER ENTRY POINTS	GRADE	ENGLISH	MATH	SCIENCE	SOCIAL STUDIES	REQUIRED COURSES			
						Health and PE (1)	Fine Arts (1/2)*	Practical Arts (1/2)	Other Elective Courses
↑ SECONDARY	9	English I (1)	Algebra I or Integrated Math I	Integrated Science (1)	US History (1)	Health and PE (1)	Fine Arts (1/2)*	Practical Arts (1/2)	
	10	English II (1)	Geometry or Integrated Math II (1)	Biology or Earth Science (1)	World History (1)	PE (1/2)	Fine Arts (1/2)*	Practical Arts (1/2)	*Many colleges require a year of foreign language
	11	English III or Contemporary Literature (1)	3rd Credit Math (1)	Environmental or Gen Chemistry (1)	NO Constitution (1/2) & SS elective (1/2)	PE (1/2)	Foreign Language (1/2)	Marketing I - (1) + Supervised Marketing Exp (3)	Principles of Marketing (3) (BUS-130)
	12	Communications Arts elective (1)				Personal Finance (1/2)	Foreign Language (1/2)	Applications I - (1/2)	Personal Computer Apps (3) (CIS-101)
Administer college placement exams (reading, math, and writing) and other assessments to determine academic readiness & career skill preparedness, provide academic advising and apply appropriate enrichment (ACT, Compass or similar)									
↓ POSTSECONDARY	Year 1 1st Semester	Composition I (3) (ENG-101)	College Algebra (3) (MTH-130)		Introduction to Psychology (3) (PSY-110)	Lifetime Wellness (2) (HLT-101)	Humanities Block I elective (3)	Personal Computer Apps (3) (CIS-101)	
	Year 1 2nd Semester	Composition II (3) (ENG-102)		Biological Science elective (4)	Principles of Economics I (3) (ECC-270)	Public Speaking (3) (COM-105)	Beginning Spanish I (3) (SPN-101)*	Principles of Marketing (3) (BUS-130)	
	Year 2 1st Semester	Business Communications (3) (BUS-160)*		Physical Science elective (4)	Principles of Economics II (3) (ECC-271)	Principles of Accounting I (3) (ACC-200)	Beginning Spanish II (3) (SPN-102)*		
	Year 2 2nd Semester	Sophomore Seminar (4) (SSM-201)	Statistical Methods (3) (MTH-210)*		American Government & Politics (3) (PLS-101)	Managerial Accounting (3) (ACC-225)*	Business Law (3) (BUS-160)*		* or emphasis-specific elective (e.g. Principles of Marketing)
<b>Required Courses</b> <b>Recommended Elective Courses</b> <b>Other Elective Courses</b> <b>Career and Technical Education Courses</b> <b>Credit-Based Transition Programs (Dual/Concurrent Enrollment, Articulated Credit, 2+2*)</b> <b>Mandatory Assessments, Advising, and Additional Preparation</b>									

**CCTI**  
Career and Technical Institute  
Funded by the U. S. Department of Education (VOS 1902001)

## **Outcomes**

- ▶ Identifying the Gaps
- ▶ Excitement from Secondary to align with Post Secondary
- ▶ Developed Stronger Partnerships
- ▶ Seamless Transition of Students – PPOS
- ▶ Better Curriculum Alignment between Secondary and Post Secondary
- ▶ Industry Alignment
- ▶ More Student Focus

## **How does this enhance the classroom? (Secondary)**

- ▶ Provides an instructional alignment
- ▶ Better prepared students
- ▶ Strengthens the instructional role within the school system
- ▶ Expands educational partnerships
- ▶ Provides for continuous industry input

## How does this help Missouri students?

- ▶ Motivates students to take rigorous courses
- ▶ Increases awareness of opportunities in the career field
- ▶ Encourages “Real World” learning
- ▶ Makes a connection between school and work
- ▶ Organizes their coursework with a focus

### **Remember:**

***A program of study and personal plan of study are related but not the same.***

A program of study is a collaborative effort among schools and colleges to seamlessly coordinate classroom instruction, student guidance, career and technical student organizations, career development and community participation for a particular Career Cluster/Pathway.

Resource: DESE website

## Resources

### OZARKS TECHNICAL COMMUNITY COLLEGE



## Contacts

### PROGRAMS OF STUDY

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### COMPREHENSIVE GUIDANCE PROGRAM

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### MISSOURI CONNECTIONS

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[www.dese.mo.gov/careered](http://www.dese.mo.gov/careered)  
[www.mcce.org](http://www.mcce.org)

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QUESTIONS?  
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