

Programs of Study and Articulation

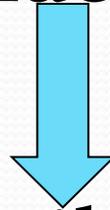
*College and Career Readiness
and
Post-secondary options
through
CTE*

Maine's 10 Career Clusters

1. Agriculture & Natural Resources
2. Architecture, Construction, & Manufacturing
3. Arts, Audio/Video Technology & Communications
4. Business, Management, & Administration, Finance, Marketing, Sales, & Service
5. Education & Public Service
6. Health & Human Services
7. Hospitality & Tourism
8. Public Safety & Security
9. Science, Technology, Engineering, Math (STEM) & Information Technology
10. Transportation

Career Cluster to Pathway to Program of Study

Cluster: Architecture, Construction,
Manufacturing



Pathway: Building Trades

Program of Study: Carpentry
(one of many in ACM)

Programs of Study

Planned sequence of courses that include:

- Rigorous academics aligned to the State and National Industry Standards

- Value-added for CTE Student:

Industry certification or license, articulated credits*, college degree (AS, AA, BA, BS)

- Multiple pathways for students for entry into careers and further training or education

- Program accountability emphasized through Perkins grant

What must a POS Contain?

1. Secondary CTE School Name
2. High School Partner School Name(s)
3. Career Cluster and Pathway (Program)
4. CTE Course Title and CIP Code
5. High School Academic Course List, Credits, and Sequence needed for graduation
6. Post-secondary Name
7. Post-secondary program and course sequence
8. Post-secondary: Program, Degree, Sequence, Credits possible
9. Industry Credential, Certificate, License
10. Articulated Credit-if possible*



Career Cluster: Architecture, Construction, Manufacturing; **Career Pathway:** Carpentry

Date:

Center or Region:

College Partner:

High School Partner(s): List or add sheets for each

Program of Study for:

EDUCATION LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies/ Sciences	Other Required Courses Other Electives Recommended Electives Learner Activities	*Career and Technical Courses and/or Degree Major Courses for Construction Pathway	SAMPLE Occupations Relating to This Pathway
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Recommended: Career Interest Inventory administered by Guidance Department

SECONDARY	9	ELA I	Algebra I	Earth or Life or Physical Science	State History Civics or World History	All Programs of Study should meet local and state high school graduation requirements and college entrance requirements. Certain local student organization activities such as SkillsUSA may be required. Health and Physical Education, Visual and Performing Arts, World Languages requirements are listed here	<ul style="list-style-type: none"> • 9th and 10th Grades may have Pre-CTE courses in areas such as: College and Career Readiness, CTE Exploratory, Industrial/Technology 	<ul style="list-style-type: none"> ▶ Carpenter ▶ Code Official ▶ Concrete Finisher ▶ Construction Engineer ▶ Construction Manager ▶ Construction Inspector ▶ Design Builder ▶ Drywall Installer ▶ Home Center Worker ▶ General Contractor 	
	10	ELA II	Geometry	Biology	U.S. History				
	11	ELA III or Technical Writing	Algebra II	Physics	Economics Psychology				<ul style="list-style-type: none"> • Carpentry I
	<i>College Placement Assessments Provided such as Accuplacer, SAT</i>								
	12	ELA IV	Const. Math or Statistics	Chemistry		<ul style="list-style-type: none"> • Carpentry II 			

Escrow & Dual Enrollment-Postsecondary courses may be taken/moved to the secondary level for articulation credit purposes.

POSTSECONDARY	Yr 13	English Composition English Literature	Algebra Trigonometry	Physics	American Government or History Psychology/ Interpersonal Skills	All Programs of Study need to meet career goals with regard to required degrees, licenses, certifications or journey worker status. Certain local student organization activities may also be important to include.	<ul style="list-style-type: none"> • Building Construction Technology I 	
	Yr 14	Speech/ Oral Communication	Business Accounting, Pre-Calculus or Calculus	Environmental Science	Sociology Business Law			<ul style="list-style-type: none"> • Building Construction Technology II
								<ul style="list-style-type: none"> • Complete Construction Engineering Major or related (4 or 5 Year Degree Program)

Credit Bearing?

- Programs of Study are not required to be credit bearing*
- But they may be and are encouraged!
- Yes, if citing an Articulation Agreement

How often updated?

- Triennially by all institutions involved*
- By June 30th of every third year*
- Starting July 1, 2017*

How Many?

- One was required by Perkins IV-The Carl D. Perkins Career and Technical Education Act was last authorized on August 12, 2006.
- Currently 20% of all programs with a CIP
- Increase to 30% of all programs with CIPs from 2014 to 2017*

New or Upcoming Programs of Study -Maybe?

- ❖ Perkins Reauthorization
- ❖ All secondary CTE Programs must be a Program of Study
- ❖ Perkins funding linked
- ❖ Rigorous Programs of Study

Rigorous Programs of Study (RPOS) 10 Framework Components

A rigorous Program of Study is a comprehensive, structured approach for delivering academic and career and technical education to prepare students for postsecondary education and career success that utilizes a framework of 10 supporting elements viewed as instrumental for creating and implementing a high quality, comprehensive POS.

Legislation and Policies

Federal, state, and local legislation or administrative policies promote POS development and implementation

Partnerships

Ongoing relationships among education, business and other community stakeholders are central to POS design, implementation, and maintenance.

Professional Development

Sustained, intensive, and focused opportunities for administrators, teachers, and faculty foster POS design, implementation, and maintenance.

Accountability and Evaluation Systems

Systems and strategies to gather quantitative and qualitative data on both POS components and student outcomes are crucial for ongoing efforts to development and implement POS

College and Career Readiness Standards

Content standards that define what students are expected to know and be able to do in order to enter and advance in college and/or their careers comprise the foundation of a POS

Course Sequences

Non-duplicative sequences of secondary and postsecondary courses within a POS ensure that students transition to postsecondary education without duplicating classes or requiring remedial coursework.

Credit Transfer Agreements

Credit transfer agreements provide opportunities for secondary students to be awarded transcribed postsecondary credit at the time the credit is earned and are supported by formal agreements between secondary and postsecondary education systems.

Guidance Counseling and Academic Advisement

Guidance counseling and academic advisement help students make informed decisions about which POS to pursue.

Teaching and Learning Strategies

Innovative and creative instructional approaches enable teachers to integrate academic and technical instruction and students to apply academic and technical learning to their POS coursework.

Technical Skills Assessments

National, state, and/or local assessments provide ongoing information to the extent to which students are attaining the necessary knowledge and skills for entry into and advancement

MOU

(Memorandum of Understanding)

- Enacted by the 125th Maine Legislature, 20-A M.R.S. § 12709(11-A)
- Between Community College System and MDOE
- Finalized May 19, 2014
- Specifies three pathways for articulated college credit in CTE

Pathways to Articulated Credit

1. Successful completion of the national industry standards or state certification standard.
2. Participation in concurrent or dual enrollment courses offered by the colleges of the MCCS.
3. Through articulation agreements between an individual college of the MCCS and a CTE center.

Implications

- Matriculation not required
- Escrow credit discontinued
- No longer any Enhanced Agreements
- Now State-wide Dual or Concurrent
- College acceptance not entitled

The First Batch

Maine Community Colleges Credit for CTE Industry Certificates		
Secondary CTE Program & CIP	Industry Certification required for credit	Credit Hours
1 Automobile/Automotive Mechanics Technology/Technician (47.0604)	Maine Motor Vehicle Inspection	1
2 Carpentry/Carpenter (46.0201); Construction Trades, General (46.0000) and others	Occupational Health and Safety Administration (OSHA)– 10 hour course	1
3 Carpentry/Carpenter (46.0201); Construction Trades, General (46.0000) and others	Occupational Health and Safety Administration (OSHA)– 30 hour course	3
4 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	CompTIA A+ (Exams 220-801 & 220-802)	6
5 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	CompTIA Network+ (Exam N10-005)	3
6 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	CompTIA Security + (Exam SYO - 301 or SYO - 401)	3
7 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	CompTIA Server + (Exam SKO-003)	3
8 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	CompTIA Linux+ (Exam LX0-101 and LX0-102)	3
9 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Microsoft Server Administration Fundamentals (Exam 98-365)	6
10 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Microsoft Networking Fundamentals (MTA Exam 98-366)	6
11 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Microsoft Security Fundamentals (Exam 98-367)	6
12 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Installing and Configuring Windows Server 2012 (Exam MCSA 70-410)	3
13 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Microsoft Operating Systems Fundamentals (Exam 98-349)	2
14 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Microsoft - Gaming Development Fundamentals (Exam 98-374)	2
15 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Cisco - CCNA Routing & Switching (Exam 200-120)	3
16 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Microsoft - Programming in HTML5 w/JavaScript and CSS3 (Exam MS 70-480)	3
17 Computer Installation and Repair Technology/Technician (47.0104); Information Technology (11.0103) and others	Querying Microsoft SQL Server 2012 (Exam 70-461)	3
18 Criminal Justice/Police Science (43.01.07)	Maine Criminal Justice Academy Law Enforcement Pre-Service Training Program-100 Hour	3
19 Culinary Arts/Chef Training (12.0503); Food Preparation/Professional Cooking/Kitchen Assistant (12.0505) <i>State-wide</i>	ServSafe (National Restaurant Association)	3
20 Electrician (46.0302) <i>State-wide</i>	Electrical Technology Program-2 year	3 at CMCC, EMCC, NMCC & SMCC 5 at KVCC 6 at WCCC
21 Emergency Medical Technology/Technician (51.0904)	National Highway Traffic Safety Administration (NHTSA) Nationally Registered Emergency Medical Technician (NREMT)	Meets Advanced EMS prerequisites OR Fire Science, 3 credits
22 Fire Science/Fire-fighting (43.0203)	Maine Fire Science Institute Firefighter (MFSI) 1 & 2 Certification	3 as elective
23 Machine Tool Technology/Machinist (48.0501) <i>State-wide</i>	National Institute of Metalworking Skills-Level I (NIMS)	3 at CMCC & KVCC 4 at NMCC, SMCC & YCCC
24 Small Engine Mechanics and Repair Technology/Technician (47.0606)	Equipment and Engine Training Council (EETC); Outdoor Power Equipment and Engine Service Association (OPEESA)	3-WCCC
25 Truck and Bus Driver/Commercial Vehicle Operation (49.0205)	Maine Commercial Driver License (CDL)	Credit for DIM 129-Commercial Driver's License at NMCC

Possible Additions

- Carpentry-National Center for Construction Education and Research (NCCER) or National Association of Homebuilders (NAHB)/Home Builders Institute-HBI
- Medium/Heavy Truck Program-National Automobile Technicians Education Foundation (NATEF)
- Plumbing-National Center for Construction Education and Research (NCCER)
- Graphic Arts/Graphic Design-Adobe, Visual Communications
- Early Childhood Education National Association of Education of Young Children (NAEYC)



Questions/Discussion?

Thank you!



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