

2011-2012 Career Clusters Articulation Guide

Courses are articulated with one or more high schools. (This is a guide and its content is subject to change.)

NOTE: Some of these courses may also be accepted as electives in other programs or serve as in-lieu-of courses.

Updated: September 2011

AGRICULTURE, FOOD & NATURAL RESOURCES

Pathway	Program	Program	Articulated with High Schools	
	Code		Core/Technical Support Courses	Credits
Environmental Service Systems	10-527-2	Water Quality Technician	Supervision (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (AS)	3
			Economics (AS)	3
			Introduction to Sociology (AS)	3
			Introduction to Psychology (AS)	3

ARCHITECTURE & CONSTRUCTION

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Construction	10-601-1	Air Conditioning, Heating & Refrigeration	Written Communication (AS)	3
		Technologies	Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			College Technical Math 1A (TCC)	3
			Economics (AS)	3
			Introduction to Sociology (AS)	3
Construction	31-413-1	Electricity	Beginning Electrical Concepts (TCC)	3
			Computer Literacy-Microsoft Office (TCC)	2
Construction	31-475-2	Building Trades Construction Worker	Computer Essentials (TCC)	2
Maintenance/Operations	10-607-5	Civil Engineering Technician-Structural	Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Technical Math 1A (TCC)	3
			College Technical Math 1B (TCC)	2
			Economics (AS)	3
			Introduction to Psychology (AS)	3

ARTS, AV TECHNOLOGY & COMMUNICATIONS

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Printing Technology	10-204-1	Printing & Publishing	Beginning Photoshop (TCC)	2
			Publishing Principles (TCC)	2
			Written Communication (AS)	3
			Oral and Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Introduction to Sociology (AS)	3
Visual Arts	10-111-6	Graphic Communications-Electronic	Beginning Photoshop (TCC)	2
		Prepress	InDesign (TCC)	2
			Marketing Basics (TCC)	1
			Computer Essentials (TCC)	2
			Principles of Graphic Design (TCC)	2
			Publishing Principles (TCC)	2
			Electronic Illustration-Adobe Illustrator	3
			(TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Introduction to Sociology (AS)	
Visual Arts	10-206-4	Interactive Media Design-Animation	Computer Literacy (TCC)	1
			Written Communication (AS)	3
			College Mathematics (TCC)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to Psychology (AS)	3
			Economics (AS)	3

ARTS, AV TECHNOLOGY & COMMUNICATIONS

Pathway	Program Code	Program	Articulated with High Schools	
Audio, Video Technology and Film	10-206-4	Interactive Media Design-Animation	Computer Literacy (TCC) Written Communication (AS) College Mathematics (TCC)	1 3 3
			Oral & Interpersonal Communication (AS) Introduction to Psychology (AS) Economics (AS)	3 3 3
Audio, Video Technology and Film	10-206-4	Interactive Media Design-Motion Graphics	Computer Literacy (TCC) Written Communication (AS) College Mathematics (TCC) Oral & Interpersonal Communication (AS) Introduction to Psychology (AS) Economics (AS)	1 3 3 3 3 3

BUSINESS, MANAGEMENT & ADMINISTRATION

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Admin & Information Support	10-106-3	Legal Administrative Professional	Document Processing (TCC)	1
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Economics (AS)	3
			Introduction to Sociology (AS)	3
Admin & Information Support	10-106-6	Administrative Professional	Document Processing (TCC)	1
			Computer Essentials (TCC)	2
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Economics (AS)	3
			Introduction to Sociology (AS)	3
Admin & Information Support	31-106-1	Office Assistant	Document Processing (TCC)	1
			Computer Essentials (TCC)	2
			Computer Literacy-Microsoft Office (TCC)	1
Admin & Information Support	31-106-2	Medical Office Specialist	Computer Literacy-Microsoft Office (TCC)	1
**		•	Document Processing (TCC)	1
			Medical Terminology (TCC)	3
			Computer Essentials (TCC)	2
			Oral & Interpersonal Communication (AS)	3
Admin & Information Support	31-106-7	Medical Transcription	Medical Terminology (TCC)	3
**		•	Written Communication (AS)	3
			Introduction to Sociology (AS) or	3
			Introduction to Psychology (AS)	3

BUSINESS, MANAGEMENT & ADMINISTRATION

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Management	10-102-3	Business Management	Accounting 1 (TCC)	4
			Marketing Principles (TCC)	3
			Introduction to Business (TCC)	3
			Business Law (TCC)	3
			Supervision (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Economics (AS)	3
			Introduction to Sociology (AS)	3
Management	10-196-1	Leadership Development	Microsoft Excel (TCC) or	2
		(Formerly Supervisory Management)	Microsoft PowerPoint (TCC	2
			Supervision (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Economics (AS)	3
			Introduction to Sociology (AS)	3
			Introduction to Psychology (AS)	3

EDUCATION & TRAINING Pathway Program Program **Articulated with High Schools** Code **Course Title** Cr IA: Child & Adolescent Development (TCC) Teaching/Training 10-522-2 **Instructional Assistant** 3 IA: Guiding & Managing Behavior (TCC) 3 IA: Introduction to Educational Practices (TCC) 3 Written Communication (AS) 3 Oral & Interpersonal Communication (AS) 3 College Mathematics (TCC) 3 Introduction to Sociology (AS) 3 Introduction to Psychology (AS) 3

FINANCE

Pathway	Program	Program	Articulated with High Schools	
·	Code		Course Title	Cr
Business Financial Management	10-101-1	Accounting	Accounting 1 (TCC)	4
			Accounting 2 (TCC)	4
			Payroll Accounting (TCC)	3
			Introduction to Business (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Economics (AS)	3
			Introduction to Sociology (AS)	3
Business Financial Management	31-101-1	Accounting Assistant	Accounting 1 (TCC)	4
			Accounting 2 (TCC)	4
			Payroll Accounting (TCC)	3
			Accounting Software Applications (TCC)	2
			Business Law (TCC)	3
			Computer Literacy-Microsoft Office (TCC)	1
			Introduction to Business (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3

Diagnostic Services	10-526-1 10-530-1	Clinical Laboratory Technician Radiography Health Information Technology	Course Title Written Communication (AS) Oral & Interpersonal Communication (AS) Introduction to Sociology (AS) Introduction to Psychology (AS) Written Communication (AS) Oral & Interpersonal Communication (AS) College Mathematics (TCC) Introduction to Sociology (AS) Introduction to Psychology (AS)	Cr 3 3 3 3 3 3 3 3 3
Diagnostic Services Diagnostic Services Health Informatics	10-526-1	Radiography	Oral & Interpersonal Communication (AS) Introduction to Sociology (AS) Introduction to Psychology (AS) Written Communication (AS) Oral & Interpersonal Communication (AS) College Mathematics (TCC) Introduction to Sociology (AS) Introduction to Psychology (AS)	3 3 3 3 3 3 3
			Introduction to Sociology (AS) Introduction to Psychology (AS) Written Communication (AS) Oral & Interpersonal Communication (AS) College Mathematics (TCC) Introduction to Sociology (AS) Introduction to Psychology (AS)	3 3 3 3 3 3
			Introduction to Psychology (AS) Written Communication (AS) Oral & Interpersonal Communication (AS) College Mathematics (TCC) Introduction to Sociology (AS) Introduction to Psychology (AS)	3 3 3 3 3
			Written Communication (AS) Oral & Interpersonal Communication (AS) College Mathematics (TCC) Introduction to Sociology (AS) Introduction to Psychology (AS)	3 3 3 3
			Oral & Interpersonal Communication (AS) College Mathematics (TCC) Introduction to Sociology (AS) Introduction to Psychology (AS)	3 3 3
Health Informatics	10-530-1	Health Information Technology	College Mathematics (TCC) Introduction to Sociology (AS) Introduction to Psychology (AS)	3 3
Health Informatics	10-530-1	Health Information Technology	Introduction to Sociology (AS) Introduction to Psychology (AS)	3
Health Informatics	10-530-1	Health Information Technology	Introduction to Psychology (AS)	
Health Informatics	10-530-1	Health Information Technology		_
Health Informatics	10-530-1	Health Information Technology		3
		Treatur information reclinology	Microsoft Access (TCC)	2
			Computer Essentials (TCC)	2
			Medical Terminology (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to Sociology (AS)	3
			Introduction to Psychology (AS)	3
Therapeutic Services	10-512-1	Surgical Technology	Medical Terminology (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to Sociology (AS)	3
			Introduction to Psychology (AS)	3

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Therapeutic Services	10-515-1	Respiratory Care Practitioner	Medical Terminology (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to Sociology (AS)	3
			Introduction to Psychology (AS)	3
Therapeutic Services	10-523-1	Chiropractic Technician	Medical Terminology (TCC)	3
			Basic Anatomy (TCC)	4
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to Sociology (AS)	3
			Economics (AS)	3
			Introduction to Psychology (AS)	3
			College Mathematics (TCC)	3
Therapeutic Services	10-543-1	Nursing – Associate Degree	Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to Psychology (AS)	3
Therapeutic Services	31-509-1	Medical Assistant	Medical Terminology (TCC)	3
			Introduction to Psychology (AS)	3
Therapeutic Services	31-543-1	Practical Nursing	Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to Psychology (AS)	3

HOSPITALITY & TOURISM

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Restaurants & Food Service	10-316-1	Culinary Arts	Food Production: Cold Foods Salads (TCC)	2
			Food Production: Meat/Fish/Poultry (TCC)	2
			Sanitation and Safety (TCC)	2
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Economics (AS)	3
			Introduction to Sociology (AS)	3
			Introduction to Psychology (AS)	3
Restaurants & Food Service	31-303-2	Food Service Production	Food Production: Cold Foods Salads (TCC)	2
			Food Production: Meat/Fish/Poultry (TCC)	2
			Sanitation and Safety (TCC)	2
			Computer Literacy-Microsoft Office (TCC)	1
			Written Communication (AS) or	3
			Oral & Interpersonal Communication (AS)	3

HUMAN SERVICES

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
EC Development & Services	10-307-1	Early Childhood Education	ECE: Foundations of Early Childhood Ed (TCC)	3
			ECE: Infant & Toddler Development (TCC)	3
			IA: Child & Adolescent Development (TCC)	3
			IA: Guiding & Managing Behavior (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Introduction to Sociology (AS)	3
			Introduction to Psychology (AS)	3
EC Development & Services	31-307-1	Childcare Services	ECE: Foundations of Early Childhood Ed (TCC)	3
			ECE: Infant & Toddler Development (TCC)	3
			IA: Child & Adolescent Development (TCC)	3
			IA: Guiding & Managing Behavior (TCC)	3
			Written Communication (AS)	3
Counseling & MH Services	10-550-1	Alcohol & Other Drug Abuse Associate	Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Introduction to Sociology (AS)	3
			Introduction to Psychology (AS)	3

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Information Support & Services	10-152-5	IT-Applications Developer	Introduction to Business (TCC)	3
**			Computer Essentials (TCC)	2
			Java Programming (TCC)	2
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Economics (AS)	3
			Introduction to Psychology (AS)	3
Network Systems	10-150-2	IT-Network Specialist	Hardware/Software Support (TCC)	3
retwork Systems	10-130-2	11-Network Specialist	Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to College Mathematics (TCC)	3
			Economics (AS)	3
			\ \ /	
			Introduction to Psychology (AS)	3
	10.171.1		Introduction to Sociology (AS)	3
Information Support & Services	10-154-4	IT-Technical Support Specialist	Microsoft Word (TCC)	2
			Microsoft PowerPoint (TCC) Computer Essentials (TCC)	2 2
			Hardware/Software Support (TCC)	3
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to College Mathematics (TCC)	3
			Economics (AS)	3
			Introduction to Psychology (AS)	3
			Introduction to Sociology (AS)	3
Interactive Media	10-152-7	IT-Web Developer	Beginning Photoshop (TCC)	2
		1	Dreamweaver/Flash (TCC)	3
			HTML/XML (TCC)	3
			Principles of Graphic Design (TCC)	2
			Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3

LAW, PUBLIC SAFETY & SECURITY

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Correction Services	10-504-2	Criminal Justice-Corrections	Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			College Mathematics (TCC)	3
			Introduction to Psychology (AS)	3
			Introduction to Sociology (AS)	3
Emergency & Fire Mgmt Services	10-531-1	Paramedic Technician	Written Communication (AS)	3
			Oral & Interpersonal Communication (AS)	3
			Introduction to Psychology (AS)	3

MANUFACTURING

Pathway	Program Code	Program	Articulated with High Schools	Articulated with High Schools	
			Course Title	Cr	
Maintenance, Installation &	10-623-8	Industrial Maintenance Technician	DC/AC Electricity (TCC)	4	
Repair			Computer Literacy-Microsoft Office (TCC)	1	
			Technical Math IA (TCC)	2	
			Technical Math IB (TCC)	2	
			Written Communication (AS)	3	
			Oral & Interpersonal Communication (AS)	3	
			Economics (AS)	3	
Production	32-444-2	CNC/Tool & Die Technologies	Basic Machining (YA)	1	
			Basic Machining Applications (YA)	4	
			Computer Aided Manufacturing Surfcam (TCC)	2	
			Computer Literacy-Microsoft Office (TCC)	1	
			PLTW Elective (AS)	3	
Production	31-442-1	Welding	Introduction to Welding Processes (TCC)	4	
			*Intro to Welding Process Part A (TCC)	2	
			*Intro to Welding Process Part B (TCC)	2	
			(Successful completion of Part A and Part B		
			equal the 4 credit Process course)		
			College Mathematics (TCC)	3	
Production	31-457-2	Metal Fabrication	Introduction to Welding Processes (TCC)	4	
			*Intro to Welding Process Part A (TCC)	2	
			*Intro to Welding Process Part B (TCC)	2	
			(Successful completion of Part A and Part B		
			equal the 4 credit Process course)		
			College Mathematics (TCC)	3	
			Computer Literacy-Microsoft Office (TCC)	1	

Production	10-620-2	Mechatronics	Technical Math 1A (TCC)	3
			Technical Math 1B (TCC)	2
			Written Communication (AS)	3
			Introduction to Psychology (AS)	3
			Computer Literacy-Microsoft Office (TCC)	1

MARKETING, SALES & SERVICES Articulated with High Schools Pathway Program Program Code **Course Title** \mathbf{Cr} Marketing Comm. & Promotion 10-104-3 Marketing Marketing Principles (TCC) 3 Promotion (TCC) 3 International Business Practice Firm (TCC) 3 Written Communication (AS) 3 Oral & Interpersonal Communication (AS) 3 Introduction to College Mathematics (TCC) 3 Economics (AS) 3 Introduction to Psychology (AS) 3 Introduction to Sociology (AS) 3

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Engineering & Technology	10-606-1	Mechanical Design Technology	Computer Aided Manufacturing-SurfCam (TCC) CAD 2-D, AutoCAD (TCC) Manufacturing Processes (TCC) Technical Math IA (TCC) Technical Math IB (TCC) Introduction to Psychology (AS) Written Communication (AS) Oral & Interpersonal Communication (AS) Economics (AS)	1 3 3 3 2 3 3 3 3 3
Engineering & Technology	10-623-8	Process Engineering Technology: Quality Assurance Track Industrial/Manufacturing Track	CAD 2-D, AutoCAD (TCC) CAD 3-D, Solidworks (TCC) Computer Aided Manufacturing-SurfCam (TCC) Manufacturing Processes (TCC) Technical Math IA (TCC) Technical Math IB (TCC) Written Communication (AS) Oral & Interpersonal Communication (AS) Economics (AS) Introduction to Sociology (AS) Introduction to Psychology (AS)	3 3 1 3 3 2 3 3 3 3 3 3
Engineering & Technology	10-602-2	Engine Research & Development Technician	Engine Fundamentals (TCC) Technical Math IA (TCC) Technical Math IB (TCC) Manufacturing Processes (TCC) CAD 2-D, AutoCAD (TCC) Computer Essentials (TCC) Written Communication (AS) Oral & Interpersonal Communication (AS) Economics (AS) Introduction to Psychology (AS)	3 3 2 3 3 2 3 3 3 3

Engineering & Technology	10-617-1	Tool Design Engineering Technology	CAD 2-D, AutoCAD (TCC)	3
			CAD 3-D Solidworks (TCC)	3
			Manufacturing Processes (TCC)	3
			Computer Aided Manufacturing -SurfCam(TCC)	1
			Technical Math IA (TCC)	3
			Technical Math IB (TCC)	2
			Written Communication (AS)	3
			Economics (AS)	3
			Intro to Psychology (AS)	3

TRANSPORTATION, DISTRIBUTION & LOGISTICS

Pathway	Program	Program	Articulated with High Schools	
	Code		Course Title	Cr
Facility & Mobile Equipment Maintenance	32-404-2	Automotive Technician	Automotive Service Fundamentals (TCC) Engine Repair 1(TCC) Electrical & Electronic Systems 1 (TCC) Computer Literacy-Microsoft Office (TCC) Written Communication (AS)	2 2 2 1 3
Facility & Mobile Equipment Maintenance	10-602-3	Automotive Technology	Automotive Service Fundamentals (TCC) Engine Repair 1(TCC) Electrical & Electronic Systems 1 (TCC) Computer Literacy-Microsoft Office (TCC) Written Communication (AS) College Mathematics (TCC) Oral & Interpersonal Communication (AS)	2 2 2 1 3 3 3

Additional Courses to serve as elective credit:

Personal Finance 3 credits

Careers in Allied Health 3 credits

Marketing Basics 1 credit

Project Grill participants: 3 elective credits into a program at Moraine Park Technical College

Project Lead the Way participants: 3 elective credits into Mechanical Design Technology, Process Engineering and Tool Design Engineering Technology Youth Apprenticeship: Please provide an Admissions Specialist a copy of your Youth Apprenticeship Graduation Certificate for possible college credits to be applied.