



## Manufacturing Production / Industrial Technology

### Career Pathway Program of Study

This Career Pathway Program of Study (based on the Production Pathway of the Manufacturing Career Cluster) can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this program are only recommended coursework and should be individualized to meet each learner's educational and career goals. \*This Program 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.

EDUCATION LEVELS	GRADE	English/ Language Arts	Math	Science	Social Studies/ Sciences	Other Required Courses and Recommended Electives	Career and Technical Courses and/or Degree Major Courses for Manufacturing Production Pathway				Sample Occupations Relating to This Pathway	
<i>Interest Inventory Administered and Program of Study Initiated for all Learners</i>												
SECONDARY	9	English I	Algebra I	Integrated Science	Consumer Ed	P.E.	Intro. to Industrial Tech					<ul style="list-style-type: none"> <li>▶ Automated Manufacturing Technician</li> <li>▶ Calibration Technician</li> <li>▶ CNC Programmer/Machinist/Operator</li> <li>▶ CMM Programmer/Layout Specialist</li> <li>▶ Electrical Installer and Repairer</li> <li>▶ Electromechanical Equipment Assembler</li> <li>▶ Mechanical Research Technician</li> <li>▶ Medical Appliance Maker</li> <li>▶ Metrology/Measurement Process Planner</li> <li>▶ Micro and Nano Fabrication Technicians</li> <li>▶ Mold Maker</li> <li>▶ Pattern and Model Maker</li> <li>▶ Precision Layout Worker</li> <li>▶ Project Engineer</li> <li>▶ Production Technician</li> <li>▶ Tool &amp; Die Maker</li> <li>▶ Welding Technician</li> </ul>
	10	English II	Geometry	Biology I	Western civilization	P.E.	Cabinetmaking & Millwork I	Cabinetmaking & Millwork II				
	11	English III	Algebra II		U.S. History	P.E./Health	Mechanical Drafting	MFT 121-take at Parkland	MFT 127 - take at Parkland	CAD 124 - Take at Parkland		
	<i>College Placement Assessments-Academic/Career Advisement Provided</i>											
	12	ENG 101	Math Recommended		Government	P.E./Consumer Ed.	MFT 110 - take at Parkland	MFT 113-take at Parkland	CAD 113 - take at Parkland	WLD 111 - take at Parkland		
<i>Dual Credit Transcribed-Postsecondary courses may be taken/moved to the secondary level for a</i>												
POSTSECONDARY	13		MAT 131 or 134				MFT 121 --Basic Machine Processes	MFT 131 Introduction to Manufacturing	CAD 124 Introduction to AutoCAD	WLD 111 Introduction to Welding		
		ENG 101		Social/Behavioral Science or Humanities/Fine Arts		CAD 113 Computer-Aided Machine Design	MFT 127 Intro. To CNC Programming	CAD 121 Materials for Industry	<b>SummerClasses</b> MFT 151 and MFT 152			
	14	ENG 102 or COM 103 or COM 200				MFT 110 Mechanical Assemblies	MFT 210 Industrial Safety	Concentration Course	Concentration Course			
				Social/Behavioral Science or Humanities/Fine Arts		MFT 113 Intro to Hydraulics and Pneumatics	MFT 128 Quality Assurance	ELT 150 Intro to Electricity and Electronics	2 Concentration Courses			
<i>Total Hours for Associate in Applied Science Degree = 70 hrs.</i>												
	15	Continue courses in the area of specialization										
	16	Complete Baccalaureate Manufacturing Major (4-Year Degree Program)										
<b>Schools in Illinois with Bachelor's degree programs in Manufacturing:</b>							Required Courses, *Recommended Course					
University of Illinois at Urbana-Champaign, Illinois State University, Northern Illinois University,							Recommended Electives					
Illinois Institute of Technology, Southern Illinois University, University of Illinois at Chicago,							Available Dual Credit Courses					
Bradley University, Western Illinois University, Eastern Illinois University, Northwestern University							Postsecondary Required Courses for the AAS Degree, according to student schedule					