



Production Pathway Manufacturing Career Cluster



This Program of Study plan should serve as a guide in the development of secondary and post-secondary course planning for students. Courses listed within this plan are only recommended and are indicative of the courses needed to complete a Program of Study. The following items need to be considered:

- Courses in the arts and humanities are valued by post-secondary institutions for their cognitive benefits and in communicating and expressing the ideas and emotions of the human spirit.
- Post-secondary institutions have varying course requirements for admission including World Languages.

| High School | Grade | English | Math | Science | Social Studies | Other Required Courses | Pathway Electives Recommended | Credit Review | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------|
| | Required Credits | 4.0 | 3.0 | 3.0 | 3.0 | 2.0 | Recommended Sequence for Pathway (<i>may adjust yearly as needed</i>) [Minimum– 8.5 elective credits needed for graduation] | Grade | Graduation Credit Requirements |
| Grade 9 | <ul style="list-style-type: none"> English 9 (1.0) -OR- Enriched English 9 (1.0) | <ul style="list-style-type: none"> Algebra I (1.0) | <ul style="list-style-type: none"> Earth Science (0.5) | <ul style="list-style-type: none"> US History (0.5) | <ul style="list-style-type: none"> Level I Physical Education (0.5) Health 9 (0.5) | <ul style="list-style-type: none"> Metals/Welding I (1.0) -OR- Woodworking I (1.0) | <ul style="list-style-type: none"> 9-12 9-12 | 4.0 Required 2.0 Elective 6.0 Total | |
| Grade 10 | <ul style="list-style-type: none"> English 10 (1.0) -OR- Enriched English 10 (1.0) | <ul style="list-style-type: none"> Geometry (1.0) -OR- Enriched Geometry (1.0) | <ul style="list-style-type: none"> Biology (1.0) | <ul style="list-style-type: none"> World Studies (1.0) -OR- AP European Studies (1.0) | <ul style="list-style-type: none"> Level II Physical Education (0.5) | <ul style="list-style-type: none"> Welding II (1.0) -OR- Woodworking II (TC) (1.0) | <ul style="list-style-type: none"> 10-12 10-12 | 4.5 Required 1.5 Elective 6.0 Total | |
| Grade 11 | <ul style="list-style-type: none"> English 11 (1.0) -OR- AP Language & Composition (1.0) | <ul style="list-style-type: none"> Algebra II/Trigonometry (1.0) -OR- Enriched Algebra II/Trigonometry (1.0) | <ul style="list-style-type: none"> Physics (1.0) | <ul style="list-style-type: none"> Government (0.5) -OR- AP United States Government and Politics (0.5) | <ul style="list-style-type: none"> Level III Physical Education (0.5) | <ul style="list-style-type: none"> Introduction to Engineering Design (1.0) -OR- Computer Integrated Manufacturing (1.0) | <ul style="list-style-type: none"> 9-12 10-12 | 4.0 Required 2.0 Elective 6.0 Total | |
| Grade 12 | <ul style="list-style-type: none"> English 12 (1.0) -OR- AP Literature & Composition (1.0) | <ul style="list-style-type: none"> See post-secondary education institution for math requirements. | <ul style="list-style-type: none"> See post-secondary education institution for science requirements. | <ul style="list-style-type: none"> AP Psychology (1.0) -OR- Psychology (0.5) -OR- Sociology/Social Issues (0.5) AP Economics (0.5) -OR- Economics (0.5) | | <ul style="list-style-type: none"> Preparation for College & Business Communications (1.0) | <ul style="list-style-type: none"> 11-12 | 2.5 Required 3.0 Elective 5.5 Total | |
| Course Code Key (see course catalog for further details) | | 28 Credits Possible | | | Other Related Courses and Activities (curricular, co-curricular, and extra-curricular) | | | | |
| AP Advanced Placement AS Advanced Standing TC Transcribed Credit YO Youth Options (0.5) Course is worth 0.5 credit (0.75) Course is worth 0.5 credit (non-TC) or 0.75 credit (TC) (1.0) Course is worth 1.0 credit | | Credits Required Grades 9-1215.0 Minimum Electives.....8.5 Credits for Graduation23.5 | | | <ul style="list-style-type: none"> STEM Youth Apprenticeship (1.0/yr) Architecture & Construction Youth Apprenticeship (1.0/yr) Principles of Engineering (1.0) World Languages (0.5) Microsoft Office Suite (TC) (0.5) | | | | |



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Advisement provided through Student Services office and post-secondary transfer credits determined by college admissions counselors.

Postsecondary credit transfer information also available at <http://www.uwsa.edu/tis>

Please visit the web site of institutions listed below for any program updates.

| Post-Secondary Options | Baccalaureate Degree | | Associate Degree Programs | | Certificate/License |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------|
| | <p><u>University of Wisconsin - Stout</u></p> <ul style="list-style-type: none"> • Manufacturing Engineering • Packaging • Plastics Engineering • Engineering Technology <p><u>University of Wisconsin - Platteville</u></p> <ul style="list-style-type: none"> • Industrial Engineering • Industrial Technology Management • Manufacturing Technology Management | <p><u>University of Wisconsin - Madison</u></p> <ul style="list-style-type: none"> • Industrial Engineering <p><u>University of Minnesota – Twin Cities</u></p> <ul style="list-style-type: none"> • Manufacturing Technology | <p><u>Chippewa Valley Technical College</u></p> <ul style="list-style-type: none"> • Air Conditioning, Heating, & Refrigeration Technology • Environmental Refrigeration, Air Conditioning, & Heating Service Technician • Industrial Mechanic • Machine Tooling Technics • Welding <p><u>Madison Area Technical College</u></p> <ul style="list-style-type: none"> • CNC Specialist Certificate • HVAC Certificate • Industrial Maintenance Technician • Industrial Maintenance Technician Certificate • Machine Tool Operations Certificate • Machine Tooling Technics • Welding | | |
| | <p>Adult Apprenticeship, On-the-Job Training or Other</p> | | <p>Employment Options</p> | | |
| | <p>Careers</p> <ul style="list-style-type: none"> • Assembler • Automated Manufacturing Technician • Calibration Technician • Electrical Installer and Repairer • Electromechanical Equipment Assembler • Extruding and Drawing Machine Setter/Set-Up Operator • Foundry Worker | <ul style="list-style-type: none"> • Grinding, Lapping, and Buffing Machine Operator • Hand Packer and Packager • Hoist and Winch Operator • Instrument Maker • Large Printing Press Machine Setter and Set-Up Operator • Machine Operator • Medical Appliance Maker | <ul style="list-style-type: none"> • Micro and Nano Fabrication Technicians • Milling Machine Setter and Set-Up Operator • Millwright • Pattern and Model Maker • Precision Layout Worker • Sheet Metal Worker • Solderer and Brazier • Tool and Die Maker | | |