TOPS University Associate of Applied Science: Industrial Engineering Technology Concentration in Industrial Maintenance

Postsecondary Partner: Bossier Parish Community College

Overview

The Associate of Applied Science in Industrial Engineering Technology with concentration in Industrial Maintenance provides the graduate the skills to work within a complex manufacturing system while assessing and analyzing the system as a whole. This degree will prepare technicians for occupations which combine the diverse fields of mechanical, electrical, power transmission, fluid power, and welding and prepares students for the challenging industrial careers where technicians manage, investigate, troubleshoot, and repair manufacturing systems.

Face to Face

Capstone Credentials

Regional (Emerging)	Basic	Advanced	Fast Forward Advanced Plus
	-Autodesk Certified User AutoCAD -Certificate of Technical Studies: Advanced Welding Technology		-Associate of Applied Science: Industrial Engineering Technology Concentration in Industrial Maintenance

**Core Academic Course*
***Jump Start CTE Course*

Grade 9	
Semester 1	**Semester 2**
*English I 120331	*Fine Arts
*Algebra I 160321	*Geometry 160323
*Environmental Science 150310	*English II 120332
*Civics 220501/220504	*½ Health 190500 & ½ PE II 190106

Grade 10	
Semester 1	**Semester 2**
*English III 120333	*Chemistry 150401
*Biology 150301	*U.S. History 220403
*Algebra II 160322	*PE I 190105
*Foreign Language I	*Foreign Language II

Additional and/or equivalent TOPS core aligned courses can be found in Bulletin 741.

Grade 11			
Semester 1		**Semester 2**	
Postsecondary Course	**LDOE Course/Code**	**Postsecondary Course**	**LDOE Course/Code**
*ENGL 101: Composition and Rhetoric	*English IV: DE - CENL 1013 English Composition I 120606	**WELD 101: Survey of Welding	**AWS Welding I 313100
*MATH 102: College Algebra	*Algebra III: DE - CMAT 1213 College Algebra 160500	**AMFG 110: Manufacturing Materials and Methods	**TBD
**SPCH 110: Public Speaking	DE Speech I 051101	**TEED 150: Pneumatics	**TBD
**TEED 101: Fundamentals of Electricity and Lab Cert: Precision Exams Electronics I	**TBD	**TEED 151: Power Transmission Technology	**TBD
**TEED 142: Print Reading for Engineering and Manufacturing	**TBD	*Math 112: Trigonometry	*Adv Math-Pre Calc: DE- CMAT 1223 Trigonometry 160501
Grade 12			
Semester 1		**Semester 2**	
Postsecondary Course	**LDOE Course/Code**	**Postsecondary Course**	**LDOE Course/Code**
**TEED 143: Introductory Computer Drafting Cert: Autodesk AutoCAD Certified User Certification or AFMG 210: Computer Aided Manufacturing	**TBD	**TEED 252: Electric Motor Controls and Lab	**Industrial Electronics II 311805
**TEED 153: Hydraulics/Fluid Dynamics with Lab	**TBD	**Industrial Technology Technical Elective	**TBD by course selected
**TEED 161: Solid Works 3D	**TBD	*Social/Behavioral Science Elective BADM 201: Principles of Macroeconomics	*Economics: DE/CECN 2213 Macroeconomics 220608
**WELD 103: Advanced Shielded Metal Arc Welding (SMAW) or Industrial Technology Technical Elective	**AWS Welding II 313105	*Humanities Elective HIST 101: Western Civilization I OR HIST 102: Western Civilization II	*World History: DE-CHIS 1113 World Civilization I 220450 OR World History: DE - CHIS 1123 World Civilization II 220451
*PHSC 105 Elemental Physics or PHYS 201:	*Physics I 150000 or 150700		

General Physics			

Approved Electives

Postsecondary Course	LDOE Course/Code
**AMFG 110: Manufacturing Materials and Methods	**TBD
**AMFG 202: Introduction to Lean Manufacturing and Six Sigma Cert: Lean Six Sigma	**TBD
**AMFG 210: Computer Aided Manufacturing	**TBD
**OGPT 101: Introduction to the Exploration and Production of Oil and Gas	**TBD
**TEED 143: Introductory Computer Drafting	**TBD
**TEED 161: Solid Works 3D	**TBD
**TEED 162: Inventor	**TBD
**TEED 201: Introduction to Digital Electronics and Programmable Logic Controllers	**TBD
**TEED 206: Electronics Equipment and Repair	**TBD
**TEED 208: Intermediate Programmable Logic	**TBD

Controllers (PLCs) and Lab	
**TEED 220: Advanced Solid Works 3D	**TBD
**TEED 252: Electric Motor Controls and Laboratory	**TBD
**TEED 264: Intermediate Siemens PLC & Lab	**TBD
**TEED 280: Industrial Technology Internship	**TBD
**WELD 105: Advanced Gas Tungsten Arc Welding (GTAW)	**TBD
**WELD 107: Advanced Flux Core and Gas Metal Arc Welding (FCAW and GMAW)	**TBD
**WELD 109: Advanced Pipe Welding and Fitting	**TBD

This pathway framework is an outline of how the approved courses can be implemented. Schools may opt to rearrange the order of course sequencing in order to meet local scheduling requirements. Additionally, Fast Forward pathways are dynamic and the Jump Start Review Panel will consider course equivalents on an as needed basis.