

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

Postsecondary Partner: Bossier Parish Community College

Overview

The Associate of Applied Science in Industrial Engineering Technology with concentration in Engineering Graphics provides the graduate with the skills needed to enter the broad field of engineering graphics. The degree prepares individuals to function as entry level graphics specialists, and includes instruction on types of views, line and dimensioning standards, and spatial relationships of surfaces as typically used in engineering, industry, and architecture. The curriculum emphasizes 2-D and 3-D techniques, as well as computer software programs used in industry.

Capstone Credentials

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

*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	**TEED 144: Intermediate Computer Drafting	**TBD
*MATH 102: College Algebra	*Algebra III: DE - CMAT 1213 College Algebra 160500	**TEED 150: Pneumatics or TEED 153 Hydraulics/Fluid Dynamics with Lab	**TBD
**TEED 101: Fundamentals of Electricity and Lab Cert: Precision Exams Electronics I	**TBD	**TEED 171: Building Information Modeling I	**TBD
**TEED 142: Print Reading for Engineering and Manufacturing	**TBD	*Social/Behavioral Science Elective: BADM 201: Principles of Macroeconomics	*Economics: DE/CECN 2213 Macroeconomics 220608
**TEED 143: Introductory Computer Drafting Cert: Autodesk AutoCAD Certified User Certification	**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
**SPCH 110: Public Speaking	**DE Speech I 051101	*PHSC 105 Elemental Physics or PHYS 201: General Physics	*Physics I 150000 or 150700
**TEED 158: Computer Drafting Applications and Laboratory	**TBD	**AMFG 210: Computer Aided Manufacturing	**TBD
**TEED 161: Solid Works 3D	**TBD	**Industrial Technology Technical Elective	**TBD by course selected
**TEED 260: Mechatronics Level I Cert: Siemens Level I	**TBD	**TEED 220: Advanced Solid Works 3D	**TBD
**Industrial Technology Technical Elective	**TBD by course selected	*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

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
**OGPT 101: Introduction to the Exploration and Production of Oil and Gas	**TBD
**TEED 102: Fundamentals of Electricity and Lab II	**TBD
**TEED 201: Introduction to Digital Electronics and Programmable Logic Controllers	**TBD
**TEED 252: Electric Motor Controls and Laboratory	**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.