

Course	Content Bucket	Resource	Author / Publisher	Location	Notes
Principles of Manufacturing	All	Advanced Manufacturing Portal	US Government, NASA, NSF	https://www.manufacturing.gov/	This is a source for news and information on advanced manufacturing programs and related activities underway in federal agencies and with science and technology missions. The news briefs can also be used to help students conduct research.
		Her Own Words	Women in Nontraditional Careers	https://nontraditionalcareers.com/?mc_cid=d82f7d4e8c&mc_eid=a0f0e604a1	A blog featuring women in a variety of nontraditional jobs.
		MAKE Magazine	Maker Media	http://makezine.com/	Provides a conduit to participate in content development that is relevant to the manufacturing industry. Moreover, it connects manufacturing content experts to share, discuss, and contribute knowledge.
		Maker Faire	Maker Media	http://makerfaire.com/	A source of events, training and development, education and careers, knowledge, and publications, all related to manufacturing.
		Manufacturing & Engineering Technologies Education Clearinghouse (METEC)	National Center for Manufacturing Education	https://www.curriki.org/oer/Manufacturing-and-Engineering-Technologies-Education-Clearinghouse-METEC--166131	The Manufacturing & Engineering Technologies Education Clearinghouse (METEC) is a searchable database of materials submitted by educators from around the world. Topics covered include classroom content and pedagogy. New materials are added continually, so be sure to check back often. Access to most materials requires a quick and free registration with METEC.
		Manufacturing Technology Lesson Plans	Utah Education Network	http://www.uen.org/Lessonplan/preview.cgi?LPid=16536	A database of quality lesson plan ideas.
		National Association of Manufacturers	National Association of Manufacturers (NAM)	http://www.nam.org/	A search engine for an array of resources including advanced manufacturing.
		National Science Digital Library	UCAR Community Programs and National Science Foundation	http://nsdl.org/	A search engine for an array of resources including advanced manufacturing.
		National Institute of Metalworking Skills (NIMS)	National Institute of Metalworking Skills (NIMS)	https://www.nims-skills.org/credentialing?q=web/nims/6	Information on the NIMS certification process.
		NC3 Certifications	National Coalition of Certification Centers (NC3)	http://www.nc3.net/	Information on the NC3 Certifications (includes PMI).
		CTE Online	Butte County Office of Education CTE Center	https://www.cteonline.org/resources/browse	Website with over 36,000 resources for CTE teachers.
Principles of Manufacturing	Safety	Occupational Safety & Health Administration	OSHA	https://www.osha.gov/index.html	OSHA assures safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.
Principles of Manufacturing	Overview of Manufacturing	4 Types of Robots Every Manufacturer Should Know	National Institute for Science and Technology (NIST)	https://www.nist.gov/blogs/manufacturing-innovation-blog/4-types-robots-every-manufacturer-should-know?utm_medium=email&utm_source=marketingcloud&utm_campaign=	Article about the types of industrial/manufacturing robots.
		Types of Manufacturing Industries	Walter Johnson	https://bizfluent.com/about-5643539-types-manufacturing-industries.html	An article briefly reviewing the various types of manufacturing industries.
Principles of Manufacturing	Materials	9 Materials That Will Change the Future of Manufacturing	Scientific American	https://www.scientificamerican.com/slideshow/9-materials-that-will-change-manufacturing/#	A slide show of new materials used in Manufacturing
		Advanced Manufacturing and Materials	ThinkTVPBS	https://www.bing.com/videos/search?q=manufacturing+materials+&view=detail&mid=1D557ADCBF137736FDE51D557ADCBF137736FDE5&FORM=VIRE	A video about manufacturing materials. Includes explanation to students on good classes to take in high school to work in Advanced Manufacturing.
Principles of Manufacturing	Career Exploration	Manufacturing Institute	Manufacturing Institute	http://www.themanufacturinginstitute.org/	Information regarding the attraction, qualification and the development of world-class manufacturing talent.
		Manufacturing Day	Fabricators and Manufacturers Association	http://www.themanufacturinginstitute.org/	Whether you are an event host, an event organizer, an attendee, media personnel or an educator we have compiled resources to help you.
		O*Net OnLine	U.S. Dept. of Labor/Employment and Training Administration	http://www.onetonline.org/	Provides comprehensive career profiles of the tasks, tools, technology, knowledge, skills, abilities, work activities of individual careers.
		Resumes & Interviewing	The University of Tennessee Knoxville, Center for Career Development	http://career.utk.edu/students/resumes-interviewing/	Available resources include a resume writing guide and interview preparation guide and more.
Principles of Manufacturing	Layout and Measurement	Introduction to Measurement and Metrology	ManufacturingET.org	http://www.manufacturinget.org/home/tech-1711-manufacturing-processes-1/measurement-layout-and-setup/	Outline of class on manufacturing measurements.
		Snap-On Precision Measurement Instruments	Snap-On	https://www.snapon.com/Industrial-Certification/Certifications/Precision-Measurement-Instruments	Content and information on Snap-On/NC3 certification for precision measuring.

Principles of Manufacturing	Blueprint Reading and Interpretation	Blueprint - Understanding Industrial Blueprints	Construction 53	http://www.construction53.com/2011/08/blueprint-understanding-industrial-blueprints/	A chapter in a course that covers industrial blueprint reading in detail.
		How to Read a Blueprint for CNC Machinists	CNC Machinist Training	https://cncmachinisttraining.com/2013/11/11/how-to-read-a-part-blueprint-for-cnc-machinists/	Short article for CNC Machinists to read blueprints.
Principles of Manufacturing	Sequencing of Manufacturing Operations	Make It: Manufacturing and Operations	Arizona State University (ASU)	https://www.bing.com/videos/search?q=manufacturing+operations&view=detail&mid=E3EB45431DA2C460BB90E3EB45431DA2C460BB90&FORM=VIRE	Video on the basic approach operations in manufacturing
Principles of Manufacturing	Quality Assurance and Continuous Improvement	Difference Between Quality Assurance & Quality Improvement	Neil Kokemuller	https://bizfluent.com/info-8693386-difference-quality-assurance-quality-improvement.html	Short article with references.
		9 Brilliantly Simple Continuous Quality Improvement techniques	Maggie Millard	https://blog.kainexus.com/continuous-improvement/continuous-quality-improvement/9-simple-continuous-quality-improvement-techniques	Short article.
Principles of Manufacturing	Machining Technology	Machine Tool Technology	Central Lakes Technology	https://www.bing.com/videos/search?q=machining+technology+videos&mkt=en-us&httpsmsn=1&refig=ad4fa6079b2443c1b29fc38ecc05f6fc&sp=-1&pq=machining+technology+videos&sc=1-26&qsn=8&sk=&cvid=ad4fa6079b2443c1b29fc38ecc05f6fc&ru=%2fsearch%3fq%3dmachining%2btechnology%2bvideos%26form%3dJENHT%26mkt%3den-us%26httpsmsn%3d1%26refig%3dad4fa6079b2443c1b29fc38ecc05f6fc%26sp%3d-1%26pq%3dmachining%2btechnology%2bvideos%26sc%3d1-26%26qs%3dn%26sk%3d%26cvid%3dad4fa6079b2443c1b29fc38ecc05f6fc&view=detail&mmscn=vwrc&mid=EA42B4EE5CFDC442D772EA42B4EE5CFDC442D772&FORM=WRVORC	Short promotional video for a Machine technology program
		Beginners Guide to Manual & CNC Machining	NYC CNC	https://www.bing.com/videos/search?q=machining+technology+videos&mkt=en-us&httpsmsn=1&refig=8360bc829764474b819d036cc06d3fb7&sp=1&qsn=H5&pq=machining+tec&sc=8-13&cvid=8360bc829764474b819d036cc06d3fb7&ru=%2fsearch%3fq%3dmachining%2btechnology%2bvideos%26form%3dJENHT%26mkt%3den-us%26httpsmsn%3d1%26refig%3d8360bc829764474b819d036cc06d3fb7%26sp%3d1%26qs%3dHS%26pq%3dmachining%2btec%26sc%3d8-13%26cvid%3d8360bc829764474b819d036cc06d3fb7&view=detail&mmscn=vwrc&mid=3DB4051ED81EE28369C43DB4051ED81EE28369C4&FORM=WRVORC	Introductory video about machining.
Principles of Manufacturing	Mechatronics	Connecting Mechatronics Educators	Mechatronics Education	https://www.mechatroniceducation.org/	A forum with resources and links for Mechatronics teachers.
Principles of Manufacturing	Electromechanical Technology	Electromechanical Technologies	Study.com	https://study.com/directory/category/Engineering/Electrical_Engineering_and_Electronics/Electromechanical_Technologies.html	A website with basic information and links related to Electromechanical Technology.
		Resources	Miller Electric Manufacturing	https://www.millerwelds.com/resources	A website with a wide variety of resources for welders of all abilities and levels.

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Principles of Machining I	All	Advanced Manufacturing Portal	US Government, NASA, NSF	https://www.manufacturing.gov/	This is a source for news and information on advanced manufacturing programs and related activities underway in federal agencies and with science and technology missions. The news briefs can also be used to help students conduct research.
		Her Own Words	Women in Nontraditional Careers	https://nontraditionalcareers.com/?mc_cid=d82f7d4e8c&mc_eid=a0f0e604a1	A blog featuring women in a variety of nontraditional jobs.
		MAKE Magazine	Maker Media	http://makezine.com/	Provides a conduit to participate in content development that is relevant to the manufacturing industry. Moreover, it connects manufacturing content experts to share, discuss, and contribute knowledge.
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		Manufacturing & Engineering Technologies Education Clearinghouse (METEC)	National Center for Manufacturing Education	https://www.curriki.org/oer/Manufacturing-and-Engineering-Technologies-Education-Clearinghouse-METEC--166131	The Manufacturing & Engineering Technologies Education Clearinghouse (METEC) is a searchable database of materials submitted by educators from around the world. Topics covered include classroom content and pedagogy. New materials are added continually, so be sure to check back often. Access to most materials requires a quick and free registration with METEC.
		Manufacturing Technology Lesson Plans	Utah Education Network	http://www.uen.org/Lessonplan/preview.cgi?LPid=16536	A database of quality lesson plan ideas.
		Manufacturing Skill Standards Council	Manufacturing Skill Standards Council	http://www.msscusa.org/certification/production-certification-cpt/	Information regarding the Certified Production Technician (CPT) certification.
		National Association of Manufacturers	National Association of Manufacturers (NAM)	http://www.nam.org/	A search engine for an array of resources including advanced manufacturing.
		National Science Digital Library	UCAR Community Programs and National Science Foundation	http://nsdl.org/	A search engine for an array of resources including advanced manufacturing.
		NC3 Certifications	National Coalition of Certification Centers (NC3)	http://www.nc3.net/	Information on the NC3 Certifications (includes PMI).
		6 Go-To Resources to Make You a Better Machinist	TORMACH Labs	https://www.tormach.com/blog/6-resources-make-better-machinist/	Links to courses and information for Machinists.
		CTE Online	Butte County Office of Education CTE Center	https://www.cteonline.org/resources/browse	Website with over 36,000 resources for CTE teachers.
Principles of Machining I	Safety	Occupational Safety & Health Administration	OSHA	https://www.osha.gov/index.html	OSHA assures safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.
Principles of Machining I	Overview of Machining Technology	Machine Tool Technology	Central Lakes Technology	https://www.bing.com/videos/search?q=machining+technology+videos&mkt=en-us&httpsmsn=1&refig=ad4fa6079b2443c1b29fc38ecc05f6c&sp=-1&pq=machining+technology+videos&sc=1:26&qs=n&sk=&cvid=ad4fa6079b2443c1b29fc38ecc05f6c&ru=%2fsearch%3fq%3dmachining%2btechnology%2bvideos%26form%3dIENHT%26mkt%3den-us%26httpsmsn%3d1%26refig%3dad4fa6079b2443c1b29fc38ecc05f6c%26sp%3d-1%26pq%3dmachining%2btechnology%2bvideos%26sc%3d1.26%26qs%3dn%26sk%3d%26cvid%3dad4fa6079b2443c1b29fc38ecc05f6c&view=detail&mmscn=vwrc&mid=EA42B4EE5CFDC442D772EA42B4EE5CFDC442D772&FORM=WRVORC	Short promotional video for a Machine technology program

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Manufacturing Practicum	All	Advanced Manufacturing Portal	US Government, NASA, NSF	https://www.manufacturing.gov/	This is a source for news and information on advanced manufacturing programs and related activities underway in federal agencies and with science and technology missions. The news briefs can also be used to help students conduct research.
		CTE Online	Center for the Advancement of Digital Resources in Education	http://www.cteonline.org/portal/default/default	CTE Online is a single destination for model curriculum, resources, tools and community. Search curriculum by keywords.
		MAKE Magazine	Maker Media	http://makezine.com/	Provides a conduit to participate in content development that is relevant to the manufacturing industry. Moreover, it connects manufacturing content experts to share, discuss, and contribute knowledge.
		Maker Faire	Maker Media	http://makerfaire.com/	A source of events, training and development, education and careers, knowledge, and publications, all related to manufacturing.
		Manufacturing & Engineering Technologies Education Clearinghouse (METEC)	National Center for Manufacturing Education	https://www.curriki.org/oeer/Manufacturing-and-Engineering-Technologies-Education-Clearinghouse-METEC-166131	The Manufacturing & Engineering Technologies Education Clearinghouse (METEC) is a searchable database of materials submitted by educators from around the world. Topics covered include classroom content and pedagogy. New materials are added continually, so be sure to check back often. Access to most materials requires a quick and free registration with METEC.
		Manufacturing Technology Lesson Plans	Utah Education Network	http://www.uen.org/Lessonplan/preview.cgi?LPid=16536	A database of quality lesson plan ideas.
		Manufacturing Skill Standards Council	Manufacturing Skill Standards Council	http://www.msscusa.org/certification/production-certification-cpt/	Information regarding the Certified Production Technician (CPT) certification.
		National Association of Manufacturers	National Association of Manufacturers (NAM)	http://www.nam.org/	A search engine for an array of resources including advanced manufacturing.
		National Science Digital Library	UCAR Community Programs and National Science Foundation	http://nsdl.org/	A search engine for an array of resources including advanced manufacturing.
		NC3 Certifications	National Coalition of Certification Centers (NC3)	http://www.nc3.net/	Information on the NC3 Certifications (includes PMI).
		6 Go-To Resources to Make You a Better Machinist	TORMACH Labs	https://www.tormach.com/blog/6-resources-make-better-machinist/	Links to courses and information for Machinists.
CTE Online	Butte County Office of Education CTE Center	https://www.cteonline.org/resources/browse	Website with over 36,000 resources for CTE teachers.		
Manufacturing Practicum	Safety	Occupational Safety & Health Administration	OSHA	https://www.osha.gov/index.html	OSHA assures safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.
Manufacturing Practicum	Advanced Manufacturing Careers	Manufacturing Institute	Manufacturing Institute	http://www.themanufacturinginstitute.org/	Information regarding the attraction, qualification and the development of world-class manufacturing talent.
		Manufacturing Day	Fabricators and Manufacturers Association	http://www.themanufacturinginstitute.org/	Whether you are an event host, an event organizer, an attendee, media personnel or an educator we have compiled resources to help you.
		O*Net OnLine	U.S. Dept. of Labor/Employment and Training Administration	http://www.onetonline.org/	Provides comprehensive career profiles of the tasks, tools, technology, knowledge, skills, abilities, work activities of individual careers.
		Resumes & Interviewing	The University of Tennessee Knoxville, Center for Career Development	http://career.utk.edu/students/resumes-interviewing/	Available resources include a resume writing guide and interview preparation guide and more.
Manufacturing Practicum	Professional Ethics and Legal Responsibilities	Legal & Ethical Issues with Manufacturing Companies	Chron	https://smallbusiness.chron.com/legal-ethical-issues-manufacturing-companies-74890.html	An article reviewing the ethical standards that manufacturing companies should maintain.
Manufacturing Practicum	Advanced Process Management	The Problem with Production Scheduling	nMetric	https://www.bing.com/videos/search?q=videos+on+manufacturing+production+schedules+qpyt=videos+on+manufacturing+production+schedules&view=detail&mid=89BF1C99614EDCDFFC389BF1C999614EDCDFFC3&&FORM=VRDGAR	A short video highlighting some manufacturing production challenges.
Manufacturing Practicum	Troubleshooting, Problem Solving and Quality Control	Troubleshooting Skills can be Learned	Efficient Plant	https://www.efficientplantmag.com/2003/09/troubleshooting-skills-can-be-learned/	Article on standardized process to improve troubleshooting skills.
Manufacturing Practicum	Portfolio	Digital portfolio for students - tips and examples	flipsnackblog	https://blog.flipsnack.com/digital-portfolio-students/	A website providing information on high student portfolios.
Manufacturing Practicum	Communication of Project Results	Manufacturing Teacher Resources	Lesson Planet	https://www.lessonplanet.com/lesson-plans/manufacturing/all	Website with resources and links to help high school manufacturing teachers. Requires subscription.

