Subject Area - Technology Education

Subject Area	Subject Definition	Suggested Subj Area for Credit	Certificate Type	Certificate Code	Certificate Grade Levels	License Type	License Code	License Grade Levels
Technological Literacy K-3	Instruction that includes content	N/A	EL - Elementary (1-8)	180105-Kindergarten-Primary		EC - Early Childhood (PS-3)		P - 3
102285	in the K-3 portion of Ohio's		EL - Elementary (1-8)	180106-Kindergarten-Elementary				
	academic content standards for		KE - Kindergarten-Elementary (K-8)					
	technology.		KP - Kindergarten-Primary (K-3)					
			SP - Special (K-12)	100000-General Industrial Technology	K - 12			
				(General Shop)				
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Technological Literacy 4-6	Instruction that includes content	N/A	EL - Elementary (1-8)			CT - Career Technical	160610-Technology Education	4 - 12
102290	in the 4-6 portion of Ohio's		KE - Kindergarten-Elementary (K-8)					
	academic content standards for		KP - Kindergarten-Primary (K-3)	180100-Elementary				
	technology.		KP - Kindergarten-Primary (K-3)	180106-Kindergarten-Elementary				
			SP - Special (K-12)	100000-General Industrial Technology	K - 12			
				(General Shop)				
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Technological Literacy 7-8	Instruction that includes content	N/A	EL - Elementary (1-8)			AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
102295	in the 7-8 portion of Ohio's		HS - High School (7-12)	100000-General Industrial Technology	7 - 12	CT - Career Technical	160610-Technology Education	4 - 12
	academic content standards for			(General Shop)				
	technology.		HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			KE - Kindergarten-Elementary (K-8)					
			KP - Kindergarten-Primary (K-3)	180100-Elementary				
			KP - Kindergarten-Primary (K-3)	180106-Kindergarten-Elementary				
			SP - Special (K-12)	100000-General Industrial Technology	K - 12			
				(General Shop)				
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Technology Education	Comprehensive action-based courses	TEC	HS - High School (7-12)	100000-General Industrial Technology	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
102300	concerned with the evolution,			(General Shop)		CT - Career Technical	160610-Technology Education	4 - 12
	utilization, and significance of		HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
	technology and its impact on		HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
	industry, including its		SP - Special (K-12)	100000-General Industrial Technology	K - 12			
	organization, personnel, systems,			(General Shop)				
	techniques, resources, products,		SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
	and sociocultural aspects.		SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Foundations of Technology	Prepares students to understand and	TEC	HS - High School (7-12)	100000-General Industrial Technology	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
107450	apply technological concepts and			(General Shop)		CT - Career Technical	160610-Technology Education	4 - 12
	processes that are the cornerstone		HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
	for the high school technology		HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
	program. Group and individual		SP - Special (K-12)	100000-General Industrial Technology	K - 12			
	activities engage students in			(General Shop)				
	creating ideas, developing		SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
	innovations and engineering		SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
	practical solutions. Technology							
	content, resources and							
	laboratory/classroom activities							
	apply student applications of							
	science, mathematics and other							
	school subjects in authentic							
	situations. This course will focus							
	on the three dimensions of							
	technological literacy: knowledge,							
	ways of thinking and acting, and							
	capabilities, with the goal of							
	students developing the							
	characteristics of technologically							
	literate citizens.							

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Subject Area	Subject Definition	Suggested Subj Area for Credit	Certificate Type	Certificate Code	Certificate Grade Levels	License Type	License Code	License Grade Levels
Research and Development 101700	The study of industrial-technical problems, including provisions for individual or group investigations of problems and opportunities to evaluate their solutions by designing, constructing, and testing products.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Design 101720	Course includes design topics from the 9-12 portion of Ohio's technology academic content standards; including identifying and producing a product or system using a design process and evaluating the final solution, and communicating findings; recognizing the role of teamwork in engineering design and of prototyping in the design process; and understanding and applying research, development, and experimentation to problem-solving.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Issues and Problems in Technology 101730	The study of themes concerning technology, society, and the environment.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Construction 100100	The study of the technology and the socioeconomic contributions of those industries concerned with residential, civic industrial, civil, and transportation structures.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Home Mechanics 100800	The study of the tools, materials, and processes involved in the upkeep and repair of the home, its equipment and devices.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Manufacturing 101300	The study of the technology and the socioeconomic contributions of industries concerned with the creation of durable consumer products.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Robotics 101350	Application of processes and knowledge in the design, development, and use of systems to manage and control devices. Products of student work in robotics may be descriptive and/or functional models of technology applications across all systems areas.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			

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Subject Area	Subject Definition	Suggested Subj Area for Credit	Certificate Type	Certificate Code	Certificate Grade Levels	License Type	License Code	License Grade Levels
Service Industries 101800	The study of the technology of industries concerned with the maintenance and repair of consumer and/or industrial products.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Woods Processes 101900	Information and skills concerned with woods, including various manufactured wood products, focusing on the technology employed in the manufacture and construction of products using woods and related factors such as occupations, economics, and consumer information.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Metals Processes 101410	Information and skills concerned with metals including the products manufactured from metals and the technology employed in the production, processing, and use of metals, as well as related factors such as occupations, economics, and consumer information.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Plastics 101500	Information and skills concerned with the production, processing, and use of plastics, composites and related factors such as occupations, economics, and consumer information.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Industrial Crafts 100200	Information and skills concerned with handcrafts and the craft industry, including its tools, materials, processes, products, and occupations.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Drafting 100300	Information and skills concerned with conveying ideas or illustrations graphically through drawings, charts, sketches, maps, and graphs, and the related factors such as the role of drafting in history and industry.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Electricity/Electronics 100401	Information and skills concerned with electrical energy including theory, applications, and control as it relates to electrically powered equipment, to various kinds of communications equipment, and to related factors such as occupations, economics, and consumer information.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Graphic Arts 100700	The study of information and skills concerned with graphic reproduction, as well as related factors such as occupations, economics, and consumer information.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			

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Subject Area	Subject Definition	Suggested Subj Area for Credit	Certificate Type	Certificate Code	Certificate Grade Levels	License Type	License Code	License Grade Levels
Communications 102000	Provides an introduction to technical communication systems and processes. Students use a variety of technologies and media to create, implement, and evaluate a network to solve a communication problem.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Industrial Computer Applications 102500	Experiences with computer applications across the technological systems areas. Selected activities covering computer hardware, software, and interface device applications to develop understanding of industrial uses of computers.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Power Mechanics 101610	Information and skills concerned with the various forms of power, including its generation, transmission, and utilization.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Energy/Power/Transmission 102100	Beginning-level course designed to provide a conceptualized study of basic machines. Students obtain a basic understanding and develop skills needed to identify, build, maintain, test, and develop machines.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			
Bio-Related and Chemical Technology Systems 103050	Comprehensive study of the knowledge and process in designing, making, developing, producing, using, managing, and assessing of technological systems to produce products with bio-related and chemical applications.	TEC	HS - High School (7-12)	100000-General Industrial Technology (General Shop)	7 - 12	AD - Adolescence to Young Adult	101315-Industrial Technology 7-12	7 - 12
						CT - Career Technical	160610-Technology Education	4 - 12
			HS - High School (7-12)	101315-Industrial Technology 7-12	7 - 12			
			HS - High School (7-12)	102000-Industrial Arts 7-12	7 - 12			
			SP - Special (K-12)	100000-General Industrial Technology (General Shop)	K - 12			
			SP - Special (K-12)	100005-Industrial Arts K - 12	K - 12			
			SP - Special (K-12)	101320-Industrial Technology K-12	K - 12			