

TAC 231 CTE Certification Requirements 2013

ASSIGNMENTS	GRADES 9-12
*Career Preparation I and II and All Practicum Courses	*The school district is responsible for ensuring that each teacher assigned to this course has completed appropriate training in state and federal requirements regarding work-based learning and safety.
** Math or Science Credit CTE Courses	**All teachers assigned to this course shall participate in Texas Education Agency (TEA)-approved training prior to teaching this course effective with the 2013-2014 school year. Teachers assigned to this course in the 2010-2011, 2011-2012, and/or 2012-2013 school year will have 12 months from the date the training is first offered to complete the TEA-approved training requirement.
CAREER DEVELOPMENT Exploring Careers (Middle School course) Career Portals (Middle School Course) Career Preparation I* Career Preparation II* Problems and Solutions	Any vocational or career and technical education (CTE) classroom teaching certificate. See 19 TAC §233.13 and §233.14 for examples of current CTE certificates.
AGRICULTURE, FOOD, & NATURAL RESOURCES	
Advanced Environmental Technology	Agriculture, Food, and Natural Resources: Grades 6-12
Equine Science	Agricultural Science and Technology: Grades 6-12
Food Processing	Any vocational agriculture certificate
Food Technology and Safety	
Forestry and Woodland Ecosystems	
Horticulture Science	
Landscape Design and Turf Grass Management	
Livestock Production	
Principles of Agriculture, Food, and Natural Resources	
Professional Standards in Agribusiness	
Range Ecology and Management	
Small Animal Management	
Veterinary Medical Applications	
Wildlife, Fisheries, and Ecology Management	
Practicum in Agriculture, Food, and Natural Resources*	

TAC 231 CTE Certification Requirements 2013

	<p align="center">Grades 6-12 Secondary Mathematics: Grades 6-12</p>
AGRICULTURE, FOOD, & NATURAL RESOURCES (Cont.)	
Agricultural Facilities Design and Fabrication	Agriculture, Food, and Natural Resources: Grades 6-12
Agricultural Mechanics and Metal Technologies	Agricultural Science and Technology: Grades 6-12
Agricultural Power Systems	Any vocational agriculture certificate
Energy and Natural Resources Technology	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Principles and Elements of Floral Design	Agriculture, Food, and Natural Resources: Grades 6-12
	Agricultural Science and Technology: Grades 6-12
	All-level Art: Grades PK-12
	Any vocational agriculture certificate
	Art: Early Childhood-Grade12
	Secondary Art: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
ARCHITECTURE AND CONSTRUCTION	
Principles of Architecture and Construction	Any home economics or homemaking certificate
	Family and Consumer Sciences, Composite: Grades 6-12
	Mathematics/Physical Science/Engineering:
	Grades 6-12
	Grades 8-12
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate

TAC 231 CTE Certification Requirements 2013

ARCHITECTURE AND CONSTRUCTION (cont)	
Interior Design	Any home economics certificate
Advanced Interior Design	Family and Consumer Sciences, Composite: Grades 6-12
Practicum in Interior Design*	
Architectural Design	Mathematics/Physical Science/Engineering:
Advanced Architectural Design	Grades 6-12
Practicum in Architectural Design*	Grades 8-12
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Construction Management	Agriculture, Food, and Natural Resources:
Advanced Construction Management	Grades 6-12
Construction Technology	Grades 6-12
Advanced Construction Technology	Any vocational agriculture certificate
Practicum in Construction Management*	Mathematics/Physical Science/Engineering:
	Grades 6-12
	Grades 8-12
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate

TAC 231 CTE Certification Requirements 2013

ARTS, AUDIO VIDEO TECHNOLOGY, AND COMMUNICATIONS	
Professional Communications	<p>All-Level Speech and Drama/Theatre Arts: Grades PK-12 Any vocational or career and technical education (CTE) classroom teaching certificate with a minimum of a bachelor's degree and six semester credit hours in speech.</p> <p>Mathematics/Physical Science/Engineering: Grades 6-12 with six semester credit hours in speech Grades 8-12 with six semester credit hours in speech</p> <p>Secondary, Grades 6-12: English Language Arts, Composite with six semester credit hours in speech Speech Speech Communications</p> <p>Speech: Grades 7-12 Grades 8-12</p>
Principles of Arts, Audio Video Technology, and	<p>Any business or office education certificate Business and Finance: Grades 6-12 Business Education: Grades 6-12 Secondary Industrial Arts: Grades 6-12 Secondary Industrial Technology: Grades 6-12 Technology Education: Grades 6-12 Trade and Industrial Education: Grades 6-12 with appropriate work approval as identified on the certificate Grades 8-12 with appropriate work approval as identified on the certificate</p>
Animation Advanced Animation	<p>Any business or office education certificate Business and Finance: Grades 6-12 Business Education: Grades 6-12 Secondary Industrial Arts: Grades 6-12 Secondary Industrial Technology: Grades 6-12 Technology Applications: Early Childhood-Grade 12 Grades 7-12 Grades 8-12 Technology Education: Grades 6-12 Trade and Industrial Education: Grades 6-12 with appropriate work approval as identified on the certificate Grades 8-12 with appropriate work approval as identified on the certificate</p>

TAC 231 CTE Certification Requirements 2013

	Vocational Trades and Industry with appropriate work approval as identified on the certificate
ARTS, AUDIO VIDEO TECHNOLOGY, AND COMMUNICATIONS (cont)	
Audio Video Production	Secondary Industrial Arts: Grades 6-12
Advanced Audio Video Production	Secondary Industrial Technology: Grades 6-12
Graphic Design and Illustration	Technology Applications:
Advanced Graphic Design and Illustration	Early Childhood-Grade 12
	Grades 7-12
	Grades 8-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Commercial Photography	Secondary Industrial Arts: Grades 6-12
Advanced Commercial Photography	Secondary Industrial Technology: Grades 6-12
Practicum in Audion Video Production *	Technology Education: Grades 6-12
Practicum in Graphic Design and Illustration*	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Printing and Imaging Technology	Trade and Industrial Education:
Advanced Printing and Imaging Technology	Grades 6-12 with appropriate work approval as identified on the certificate
Practicum in Printing and Imaging Technology*	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Fashion Design	Any home economics certificate
Advanced Fashion Design	Family and Consumer Sciences, Composite: Grades 6-12
Practicum in Fashion Design*	

TAC 231 CTE Certification Requirements 2013

BUSINESS MANAGEMENT AND ADMINISTRATION	
Accounting I	Any business or office education certificate
Accounting II	Business and Finance: Grades 6-12
Business Information Management I	Business Education: Grades 6-12
Business Information Management II	
Business Law	
Financial Analysis	
Insurance Operations	
Securities and Investments	
Touch System Data Entry	
Practicum in Business Management*	
Business Management	Any business or office education certificate
Global Business	Any marketing or distributive education certificate
Human Resources Management	Business and Finance: Grades 6-12
Principles of Business, Marketing, and Finance	Business Education: Grades 6-12
Virtual Business	Marketing: Grades 6-12
	Marketing Education: Grades 8-12
Statistics and Risk Management**	Any business or office education certificate
	Business and Finance: Grades 6-12
	Business Education: Grades 6-12
	Master Mathematics Teacher (Grades 8-12)
	Mathematics:
	Grades 7-12
	Grades 8-12
	Mathematics/Physical Science/Engineering:
	Grades 6-12
	Grades 8-12
	Physics/Mathematics: Grades 7-12
	Physics/Mathematics: Grades 8-12
	Secondary Mathematics: Grades 6-12
EDUCATION AND TRAINING	
Instructional Practices in Education and Training	Any home economics or homemaking certificate
Principles of Education and Training	Family and Consumer Sciences, Composite: Grades 6-12
Practicum in Education and Training*	Human Development and Family Studies: Grades 8-12

TAC 231 CTE Certification Requirements 2013

EDUCATION AND TRAINING (cont)	
Human Growth and Development	Any home economics or homemaking certificate Family and Consumer Sciences, Composite: Grades 6-12 Health Science: Grades 6-12 Health Science Technology Education: Grades 8-12 Human Development and Family Studies: Grades 8-12 Vocational Health Occupations Vocational Health Science Technology
GOVERNMENT AND PUBLIC ADMINISTRATION	
Foreign Service and Diplomacy	Secondary Government: Grades 6-12
Planning and Governance	Secondary Political Science: Grades 6-12
Political Science I	Secondary Social Studies, Composite: Grades 6-12
Political Science II	Secondary Social Science, Composite: Grades 6-12
Principles of Government and Public Administration	Social Studies: Grades 7-12
Public Management and Administration	Grades 8-12
Practicum in Local, State, and Federal Government*	Trade and Industrial Education: Grades 6-12 with appropriate work approval as identified on the certificate Grades 8-12 with appropriate work approval as identified on the certificate Vocational Trades and Industry with appropriate work approval as identified on the certificate
Revenue, Taxation, and Regulation	Any business or office education certificate Business and Finance: Grades 6-12 Business Education: Grades 6-12 Secondary Social Studies, Composite: Grades 6-12 Secondary Social Science, Composite: Grades 6-12 Social Studies: Grades 7-12 Grades 8-12
National Security	Trade and Industrial Education: Grades 6-12 with appropriate work approval as identified on the certificate Grades 8-12 with appropriate work approval as identified on the certificate Vocational Trades and Industry with appropriate work approval as identified on the certificate

TAC 231 CTE Certification Requirements 2013

HOSPITALITY AND TOURISM (cont)	
Culinary Arts	Any home economics or homemaking certificate
Practicum in Culinary Arts*	Family and Consumer Sciences, Composite: Grades 6-12
	Hospitality, Nutrition, and Food Sciences: Grades 8-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Food Science**	
	Any home economics or homemaking certificate
	Chemistry:
	Grades 7-12
	Grades 8-12
	Family and Consumer Sciences, Composite: Grades 6-12
	Hospitality, Nutrition, and Food Sciences: Grades 8-12
	Life Science:
	Grades 7-12
	Grades 8-12
	Master Science Teacher (Grades 8-12)
	Science:
	Grades 7-12
	Grades 8-12
	Secondary Biology: Grades 6-12
	Secondary Chemistry: Grades 6-12
	Secondary Science: Grades 6-12
	Secondary Science, Composite: Grades 6-12
HUMAN SERVICES	
Child Development	Any home economics or homemaking certificate
Child Guidance	Family and Consumer Sciences, Composite: Grades 6-12
Family and Community Services	Human Development and Family Studies: Grades 8-12
Interpersonal Studies	
Principles of Human Services	
Practicum in Human Services*	

TAC 231 CTE Certification Requirements 2013

HUMAN SERVICES (cont)	
Lifetime Nutrition and Wellness	Any home economics or homemaking certificate Family and Consumer Sciences, Composite: Grades 6-12 Health Science: Grades 6-12 Health Science Technology Education: Grades 8-12 Hospitality, Nutrition, and Food Sciences: Grades 8-12 Human Development and Family Studies: Grades 8-12 Vocational Health Occupations Vocational Health Science Technology
Counseling and Mental Health	Any home economics or homemaking certificate Family and Consumer Sciences, Composite: Grades 6-12 Health Science: Grades 6-12 Health Science Technology Education: Grades 8-12 Human Development and Family Studies: Grades 8-12 Vocational Health Occupations
Dollars and Sense	Any business or office education certificate Any home economics or homemaking certificate Any marketing or distributive education certificate Business and Finance: Grades 6-12 Business Education: Grades 6-12 Family and Consumer Sciences, Composite: Grades 6-12 Human Development and Family Studies: Grades 8-12 Marketing: Grades 6-12 Marketing Education: Grades 8-12
Introduction to Cosmetology	Trade and Industrial Education:
Cosmetology I	Grades 6-12 with appropriate work approval as identified on the certificate
Cosmetology II	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
	Plus: Current license as a Cosmetology Instructor issued by the Texas Department of Licensure and Regulation

TAC 231 CTE Certification Requirements 2013

INFORMATION TECHNOLOGY	
Principles of Information Technology	Any business or office education certificate
Research in Information Technology Solutions	Business and Finance: Grades 6-12
Telecommunications and Networking	Business Education: Grades 6-12
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Digital and Interactive Media	Any business or office education certificate
Web Technologies	Business and Finance: Grades 6-12
	Business Education: Grades 6-12
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Technology Applications:
	Early Childhood-Grade 12
	Grades 7-12
	Grades 8-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Computer Programming	Any business or office education certificate
Advanced Computer Programming	Business and Finance: Grades 6-12
	Business Education: Grades 6-12
	Computer Science: Grades 8-12
	Secondary Computer Information Systems: Grades 6-12
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate

TAC 231 CTE Certification Requirements 2013

INFORMATION TECHNOLOGY (cont)	
Computer Maintenance	<p>Secondary Industrial Arts: Grades 6-12 Secondary Industrial Technology: Grades 6-12 Technology Education: Grades 6-12 Trade and Industrial Education: Grades 6-12 with appropriate work approval as identified on the certificate Grades 8-12 with appropriate work approval as identified on the certificate Vocational Trades and Industry with appropriate work approval as identified on the certificate</p>
Computer Technician	<p>Secondary Industrial Arts: Grades 6-12 Secondary Industrial Technology: Grades 6-12 Technology Education: Grades 6-12 Technology Applications: Early Childhood-Grade 12 Grades 7-12 Grades 8-12 Trade and Industrial Education: Grades 6-12 with appropriate work approval as identified on the certificate Grades 8-12 with appropriate work approval as identified on the certificate Vocational Trades and Industry with appropriate work approval as identified on the certificate</p>
LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY	
Correctional Services	<p>Trade and Industrial Education: Grades 6-12 with appropriate work approval as identified on the certificate Grades 8-12 with appropriate work approval as identified on the certificate Vocational Trades and Industry with appropriate work approval as identified on the certificate Plus: Valid license appropriate for the assignment.</p>
Court Systems and Practices	
Firefighter I	
Firefighter II	
Law Enforcement I	
Law Enforcement II	
Principles of Law, Public Safety, Corrections, and Security	
Security Services	
Practicum in Law, Public, Safety, Corrections and Security*	

TAC 231 CTE Certification Requirements 2013

LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY (cont)	
Forensic Science**	<p>Chemistry: Grades 7-12 Grades 8-12</p> <p>Health Science: Grades 6-12 Health Science Technology Education: Grades 8-12</p> <p>Life Science: Grades 6-12 Grades 8-12</p> <p>Master Science Teacher (Grades 8-12)</p> <p>Science: Grades 7-12 Grades 8-12</p> <p>Secondary Biology: Grades 6-12 Secondary Chemistry: Grades 6-12 Secondary Science, Composite: Grades 6-12</p> <p>Trade and Industrial Education: Grades 6-12, a bachelor's degree, and appropriate work approval Grades 8-12, a bachelor's degree, and appropriate work approval</p> <p>Vocational Health Occupations with a bachelor's degree Vocational Health Science Technology with a bachelor's degree Vocational Trades and Industry, a bachelor's degree, and appropriate work approval</p>
MANUFACTURING	
Principles of Manufacturing	Mathematics/Physical Science/Engineering:
Precision Metal Manufacturing	Grades 6-12
Advanced Precision Metal Manufacturing	Grades 8-12
Flexible Manufacturing	Secondary Industrial Arts: Grades 6-12
Advanced Flexible Manufacturing	Secondary Industrial Technology: Grades 6-12
Manufacturing Engineering	Technology Education: Grades 6-12
Practicum in Manufacturing*	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate

TAC 231 CTE Certification Requirements 2013

MANUFACTURING (cont)	
Welding	Agriculture, Food, and Natural Resources: Grades 6-12
Advanced Welding	Agricultural Science and Technology: Grades 6-12
	Any vocational agriculture certificate
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
MARKETING	
Sports and Entertainment Marketing	Any marketing or distributive education certificate
Marketing Dynamics	Marketing: Grades 6-12
Practicum in Marketing Dynamics*	Marketing Education: Grades 8-12
Advertising and Sales Promotion	Any marketing or distributive education certificate
	Marketing: Grades 6-12
	Marketing Education: Grades 8-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Fashion Marketing	Any home economics or homemaking certificate
	Any marketing or distributive education certificate
	Family and Consumer Science, Composite: Grades 6-12
	Marketing: Grades 6-12
	Marketing Education: Grades 8-12
Entrepreneurship	Any vocational or career and technical education (CTE) classroom teaching certificate. See 19 TAC §233.13 and §233.14 for examples of current CTE certificates.

TAC 231 CTE Certification Requirements 2013

MARKETING (cont)	
Retailing and E-tailing	Any business or office education certificate Any home economics or homemaking certificate Any marketing or distributive education certificate Business and Finance: Grades 6-12 Business Education: Grades 6-12 Family and Consumer Science, Composite: Grades 6-12 Hospitality, Nutrition, and Food Sciences: Grades 8-12 Marketing: Grades 6-12 Marketing Education: Grades 8-12
SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS	
Concepts of Engineering and Technology	Agriculture, Food, and Natural Resources: Grades 6-12 Agricultural Science and Technology: Grades 6-12 Any vocational agriculture certificate Health Science: Grades 6-12 Health Science Technology Education: Grades 8-12 Mathematics/Physical Science/Engineering: Grades 6-12 Grades 8-12 Science, Technology, Engineering, and Mathematics: Grades 6-12 (TBD) Secondary Industrial Arts: Grades 6-12 Secondary Industrial Technology: Grades 6-12 Technology Education: Grades 6-12 Trade and Industrial Education: Grades 6-12 with appropriate work approval as identified on the certificate Grades 8-12 with appropriate work approval as identified on the certificate Vocational Health Occupations Vocational Health Science Technology Vocational Trades and Industry with appropriate work approval as identified on the certificate

TAC 231 CTE Certification Requirements 2013

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (cont)	
Biotechnology	<p>Agriculture, Food, and Natural Resources: Grades 6-12 Agricultural Science and Technology: Grades 6-12 Any vocational agriculture certificate Health Science: Grades 6-12 Health Science Technology Education: Grades 8-12 Mathematics/Physical Science/Engineering: Grades 6-12 Grades 8-12 Science, Technology, Engineering, and Mathematics: Grades 6-12 (TBD) Secondary Industrial Technology: Grades 6-12 Secondary Industrial Arts: Grades 6-12 Technology Education: Grades 6-12 Vocational Health Occupations Vocational Health Science Technology</p>
Advanced Biotechnology**	<p>Agriculture, Food, and Natural Resources: Grades 6-12 Agricultural Science and Technology: Grades 6-12 Any vocational agriculture certificate Health Science: Grades 6-12 Health Science Technology Education: Grades 8-12 Life Science: Grades 7-12 Grades 8-12 Master Science Teacher (Grades 8-12) Science: Grades 7-12 Grades 8-12 Science, Technology, Engineering, and Mathematics: Grades 6-12 (TBD) Secondary Biology: Grades 6-12 Secondary Science Secondary Science, Composite: Grades 6-12 Vocational Health Occupations with a bachelor's degree</p>

TAC 231 CTE Certification Requirements 2013

<p>SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (cont)</p>	
<p>Engineering Design and Presentation</p>	
<p>Advanced Engineering Design and Presentation</p>	<p>Mathematics/Physical Science/Engineering: Grades 6-12</p>
<p>Practicum in Science, Technology, Engineering, and Mathematics*</p>	<p>Grades 8-12</p>
	<p>Science, Technology, Engineering, and Mathematics: Grades 6-12 (TBD)</p>
	<p>Secondary Industrial Arts: Grades 6-12</p>
	<p>Secondary Industrial Technology: Grades 6-12</p>
	<p>Technology Education: Grades 6-12</p>
	<p>Trade and Industrial Education:</p>
	<p>Grades 6-12 with appropriate work approval as identified on the certificate</p>
	<p>Grades 8-12 with appropriate work approval as identified on the certificate</p>
	<p>Vocational Trades and Industry with appropriate work approval as identified on the certificate</p>
<p>Engineering Mathematics**</p>	<p>Master Mathematics Teacher (Grades 8-12)</p>
	<p>Mathematics:</p>
	<p>Grades 7-12</p>
	<p>Grades 8-12</p>
	<p>Mathematics/Physical Science/Engineering:</p>
	<p>Grades 6-12</p>
	<p>Grades 8-12</p>
	<p>Physics/Mathematics:</p>
	<p>Grades 7-12</p>
	<p>Grades 8-12</p>
	<p>Science, Technology, Engineering, and Mathematics: Grades 6-12 (TBD)</p>
	<p>Secondary Mathematics: Grades 6-12</p>
	<p>Secondary Industrial Arts: Grades 6-12</p>
	<p>Secondary Industrial Technology (Grades 6-12)</p>
	<p>Technology Education: Grades 6-12</p>

TAC 231 CTE Certification Requirements 2013

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (cont)	
Electronics	Mathematics/Physical Science/Engineering:
Advanced Electronics	Grades 6-12
Robotics and Automation	Grades 8-12
	Science, Technology, Engineering, and Mathematics: Grades 6-12 (TBD)
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Technology Education: Grades 6-12
	Trade and Industrial Education:
	Grades 6-12 with appropriate work approval as identified on the certificate
	Grades 8-12 with appropriate work approval as identified on the certificate
	Vocational Trades and Industry with appropriate work approval as identified on the certificate
Principles of Technology***	Master Science Teacher (Grades 8-12)
Engineering Design and Problem Solving **	Mathematics/Physical Science/Engineering:
	Grades 6-12
	Grades 8-12
	Physical Science:
	Grades 6-12
	Grades 8-12
	Physics/Mathematics:
	Grades 7-12
	Grades 8-12
	Science:
	Grades 7-12
	Grades 8-12
	Science, Technology, Engineering, and Mathematics: Grades 6-12
	Secondary Industrial Arts: Grades 6-12
	Secondary Industrial Technology: Grades 6-12
	Secondary Physics: Grades 6-12
	Secondary Science Composite: Grades 6-12
	Technology Education: Grades 6-12

NOTE: All teachers assigned to Principles of Technology shall participate in Texas Education Agency-approved training and have eight semester credit hours in physics prior to teaching this course.

*****May also be taught with a vocational agriculture certificate or a trades and industry certificate with verifiable physics applications experience in business and industry, if assigned prior to the 1998-99 school year. Six semester credit hours of college physics, chemistry, or electricity/electronics**

