

Technology Education Program Evaluation

Texas Education Agency
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For further information or questions, please contact:

Technology Education
TEA – CATE Division
1701 N. Congress Ave.
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Technology Education Program Evaluation

§75.1025. Program Evaluations

Each district and consortium shall annually evaluate the size, scope, quality, and effectiveness of its Technology Education programs.

Technology Education is a comprehensive experience-based educational program that allows students to investigate and experience the means by which humans meet their needs and wants, solve problems, and extend their capabilities. It is concerned with the knowledge and skills necessary to develop, produce, and use products or services, and how to assess the impacts these activities have on humanity and the environment.

In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require for individuals to gain and maintain employment in the 21st century. Technology Education is organized into six content areas: 1) bio-related technology; 2) communication; 3) computer applications; 4) construction; 5) energy, power, and transportation; and 6) manufacturing.

Objectives

The objectives of the Technology Education and TEA program evaluation process are:

1. To provide a process for program evaluation.
2. To promote, strengthen, and assure the local operation of quality Technology Education programs.
3. To provide the local education agency, TEA and SBOE staff with information for planning and improvement of career and technology education.
4. To assure accountability in the use of federal, state, and local funds allocated to Technology Education programs.
5. To promote and strengthen partnerships with business and the community.
6. To support the inclusion of guidance, counseling, and placement as well as other student support services.
7. To establish follow-up and technical assistance procedures which provide for continuous assessment and improvement of Technology Education programs and services.

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Recommended Program Evaluation Team

It is recommended that a team consisting of at least the following should conduct the Technology Education program evaluation process:

- ⊕ All instructors who are involved in Technology Education on this campus.
- ⊕ one counselor
- ⊕ one educational administrator
- ⊕ one student who is presently or formerly a Technology Education student on that campus.
- ⊕ one person representing special populations
- ⊕ one parent of a present or former Technology Education student on that campus

The team will conduct reviews every year to ensure that Technology Education programs are current, fulfill a community need, and comply with state and federal laws, rules and regulations, and SBOE policies and TEA program standards.

General Information			
Date			
Name of Campus		Campus Number	
Street Address	City	State	Postal Code
Web Address	Email Address		
Front Office Phone #	Building FAX #	Teachers Office Phone #	

Names of Technology Education Teachers on Campus	Highest Degree Held	Years of Teaching Experience	Years in Campus	Years on District

Name of Building Principal	
Name of Career and Technology Education Director	
Name of Superintendent	
Name of School District	District Number
County Name	County Number
List of Team Members:	
Instructor(s)	Credentials Area(s)
Instructor(s)	Credentials Area(s)
Instructor(s)	Credentials Area(s)
Counselor	
Educational Administrator	Title
Student	Area of Study
Team Member Representing Special Populations	Title
Parent	
The above members represent the Program Evaluation team who conducted the review. The results have been reviewed and approved by the program evaluation team.	
Certified by the Program Evaluation Committee Chair:	
Signature	Date
TEA Director of Technology Education	Date

School Level	Type of Course	Course	Indicate Courses Taught
Elementary	Overview	Technology Explorations	
Middle School	Overview	Technology Education	
	Exploratory	Exploring Communication Technology	
		Exploring Computer Applications	
		Exploring Construction Technology	
		Exploring Energy, Power, and Transportation Technology	
High School	Overview	Technology Systems	
		Engineering Principles	
	Exploratory	Communication Systems	
		Manufacturing Systems	
		Construction Systems	
		Energy, Power, and Transportation Systems	
		Bio-Related Technology Systems	
		Computer Applications	
	Technical	Architectural Graphics	
		Engineering Graphics	
		Communication Graphics	
		Manufacturing Technology	
		Architectural Construction	
		Electricity/Electronics Technology	
High School	Technical	Computer Multimedia and Animation Technology	
	Scientific	Principles of Technology I	
		Principles of Technology II	
	Research	Research, Design, and Development	
Problems and Solutions in Technology			

Please Describe the Physical setting of the laboratory:

- Traditional
- Modular
- Computer Applications
- Principles of Technology lab
- Combination Modular/Production

List the major equipment found in the lab:

If a decision has been made not to teach various courses, on what basis was this decision made?

Program Content Standards

Technology Education Essential Knowledge and Skills	Not Implemented	Weakly Implemented	Average Implementation	Strong Implementation	Full Implementation	Not Applicable
An understanding of how the individual parts of a system contribute to achieving common goals.						
The ability to use the appropriate technology to perform specific tasks.						
The ability to transform ideas into reality and communicate them clearly.						
Knowledge of emerging and innovative technologies						
An understanding of quality and how it is measured.						
The ability to use a variety of tools, processes, and materials to produce goods.						
How to work safely with technology.						
The importance of maintenance.						
The ability to manage individual and group projects						
The importance of codes, laws, standards, and regulations.						
The ability to assess the effects of technological solutions.						
An understanding of how and why technology evolves.						
The ability to solve problems, think critically, and make decisions.						
An understanding of the costs associated with producing and consuming goods and services.						
The ability to apply communication, mathematics, and science knowledge and skills to work and personal activities.						
How goods and services are marketed.						
An understanding of career opportunities, requirements, and expectations.						
An understanding of teamwork, leadership, integrity, honesty, work habits, and organizational skills.						

Curriculum and Program Results

Levels of Assessment Interpretation of Level

- 4 - Excellent Exceeds Program Standards
- 3 - Good Meets program standards. No need for additional technical assistance at this time, although some areas, as indicated, could be improved
- 2 - Needs improvement Generally falls below program standards. Demonstrates limited effectiveness. Additional technical assistance and/or resource utilization is a requirement for improvement.
- 1 - Poor or Missing Evidenced with little or no effectiveness. A great deal of technical assistance and/or resource utilization would be an immediate need.
- N/A - does not apply Does not apply to the program being reviewed.

		1	2	3	4	N / A
1.0	Student Enrollment					
1.1	Special population students enrolled in Technology Education are in proportion to the number of special education students enrolled on the campus.					
1.2	This program reflects non-traditional gender enrollments.					
1.3	Ethnic memberships enrolled in Technology Education are in proportion to the number of ethnic students enrolled on the campus.					
1.4	Bias-free instructional materials and texts are used, and instruction reflects nondiscriminatory practices.					
1.5	There is encouragement for each student to have a career concentration outlined in a coherent sequence of courses on file, reviewed annually, and revised if needed.					
1.6	Enrollment and class sizes are manageable and adherent to recommended TEA guidelines.					
1.7	Appropriate procedures have been followed in placing identified students with disabilities into technology education classes. Procedures include:					
	a vocational assessment					
	b Placement by an Admission, Review, and Dismissal committee which includes the technology education teacher who will instruct the student.					
	c An Individual Education plan (IEP) to direct appropriate technology education instruction for the student.					
	d Appropriate modifications of instruction and/or equipment, program goals, and related aids and services as specified in the IEP.					

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		1	2	3	4	N/A
2.0	Curriculum					
2.1	Current basic curriculum guides are followed in each of the courses offered by the department. Either locally or state developed.					
2.2	Curriculum guides were used in developing the annual teaching plan.					
2.3	Lesson plans are prepared for all courses offered by the department in conformity with school policy.					
2.4	Appropriate methods are used to modify and improve the technology education program.					
2.5	Environmental education and resource management instruction are provided when appropriate.					
2.6	Instructional materials, equipment, tools, and supplies are modified, when appropriate, and accessible to meet the needs of all students, including those with disabilities and those with gifted abilities.					
2.7	Safety and sanitation are continuously taught by teachers and practiced in instructional activities by students, teachers and others.					
2.8	Safe use of facilities, equipment, tools, materials, and supplies is included in student instruction <i>prior</i> to student use.					
2.9	Appropriate computer hardware and appropriate software, including access to the internet, are readily available for instructional use.					
2.10	Audiovisual equipment and materials are available for use by teachers and students to meet student instructional needs, and the facility accommodates effective use of the audiovisual equipment.					
2.11	A balanced and up-to-date selection of relevant resources is provided to meet the instructional needs of students.					
2.12	An effective student evaluation system that meets local school district policies and guidelines is in place to assess student progress and achievement in technology education classes.					
2.13	There is a well-defined grading system in use, and a copy given to each student.					
2.14	The instructor has access to individual student files containing the assessment of students' interests, abilities, and special needs, and the information is used appropriately to direct effective student learning.					
2.15	Technology Education/Technology Systems class is used as a prerequisite to exploratory, technical, scientific, and research level classes.					

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		1	2	3	4	N/A
3.0	Facilities and Equipment					
3.1	The Technology Education facility is well maintained, in good repair, updated, and/or replaced when necessary. Good general appearance is maintained.					
3.2	Sufficient space, furniture, equipment, tools, materials, and supplies are accessible to permit maximum individual student participation in all areas of the instructional program.					
3.3	The space and physical arrangements are conducive to effective instruction.					
3.4	Considering maximum class enrollments, the space/facility, physical arrangement, furniture, equipment, tools, materials, and supplies in the technology education department, including classrooms and laboratories, are adequate to provide safe and effective instruction.					
3.5	Classroom is physically accessible for individuals with disabilities.					
3.6	Laboratory space meets TEA recommended standards.					
3.7	Laboratory is physically accessible for individuals with disabilities.					
3.8	Sufficient and appropriate safe storage is provided for equipment, tools instructional supplies, materials, students' materials and records.					
3.9	The technology education facility is a safe and sanitary environment for teachers, students, and others.					
3.10	Adequate hot and cold water is available for activities when appropriate.					
3.11	Facilities, equipment, tools, and instructional materials and supplies comply with local, state, and federal health and safety rules and regulations, including but not limited to the Texas Department of Health and the Texas Department of Protective and Regulatory Services.					
3.12	The technology education facility has regular custodial services.					
3.13	There are procedures in place and sufficient funds available for replacement and/or immediate repair of malfunctioning equipment and tools.					
3.14	Adequate office space is provided that contains a computer, printer, Internet access, telephone, desk, and other necessary equipment.					

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		1	2	3	4	N/A
3.15	The institution's environmental control is adequate, appropriate, well maintained, and meets health and safety regulations in the following areas:					
	a	Heating				
	b	Cooling				
	c	Lighting				
	d	Ventilation				
	e	Electrical outlets and wiring				
	f	Water, plumbing and drainage				
	g	Gas				
3.16	Equipment					
	a.	Short and long-range plans have been developed for replacing and/or updating, furniture, equipment, and tools and purchasing state-of-the-art technology.				
	b	Equipment is sufficient in quantity to support the independent study needs of the largest class of students.				
	c.	Regular inspections are made of lab equipment and tools to determine condition, and repairs are made when necessary.				
	d	Equipment is maintained on a regular basis according to manufacturer's specifications and conformity to local, state, and federal rules and regulations.				
	e.	Equipment purchased with state and federal funds may be easily identified.				
	f.	An annual inventory is taken of all tools, equipment, and supplies; copies are given to appropriate administrators.				
	g	Tools and equipment are marked in order that ownership may be readily determined.				
3.17	Supplies are:					
	a	Sufficient in quantity to support the independent study needs of the largest class of students.				
	b	Systematically inventoried				

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		1	2	3	4	N/A
4.0	Safety and housekeeping practices include:					
4.1	Safety rules are posted and enforced.					
4.2	Safety guards, emergency cutoff switches, and other safety features have been installed on equipment, are in working order, and are easily accessible.					
4.3	Safety apparel is issued to students, i.e. safety glasses or goggles, ear plugs, dust masks and aprons.					
4.4	Student safety tests, performance based and written are on file for each student.					
4.5	Evidence of hazardous material handling and right-to-know instruction is retained on file to verify that appropriate training has taken place.					
4.6	Appropriate lockable hazardous materials storage is available.					
4.7	There is a hazardous waste disposal system in place for the program.					
4.8	Appropriate measures have been taken to protect the students and instructor from contamination while treating an injury.					
4.9	Appropriate first aid instruction is provided for teachers annually.					
4.10	The laboratory is functional and clean.					
4.11	All lab equipment is functional and clean.					
4.12	The laboratory has a functional, flexible, and safe layout.					
4.13	Emergency telephone numbers are clearly posted.					
4.14	There is a wash facility in the laboratory.					
4.15	Emergency exits routing from building and emergency procedures are posted.					
4.16	The lab has been color-coded. Work areas and aisles are well marked according to recognized safety standards.					
4.17	Technology education teachers model and exhibit safe practices and procedures when using facilities, equipment, tools, materials, and supplies.					

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		1	2	3	4	N/A
5.0	Faculty and Administrative Support					
5.1	All program faculty are properly certified or are currently seeking certification as approved by SBEC and are on file with the local school district.					
5.2	Faculty and staff participate in professional development activities through annual attendance at local, regional, and state or national professional development conferences designed to maintain and enhance their skills, program content, technology, current practices in business and industry, and effective teaching techniques and strategies.					
5.3	Each teacher annually participates in professional development related to the profession of teaching Technology Education.					
5.4	There is funding available for faculty and staff professional development.					
5.5	Administration actively works with the faculty for program improvement.					
5.6	There is a budget for program operation.					
5.7	The program budget is prepared with input from the faculty.					
5.8	There is sufficient enrollment to justify continuation of the program.					
5.9	All students have equal opportunity to participate in this program.					
5.10	The instructor has developed and utilized methods to ensure that counselors and administrators are familiar with the goals, objectives, activities, prerequisites, enrollment guidelines, changes in curriculum, etc., of the program.					

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		1	2	3	4	N/A
5.11	Scheduled time in the school day is used for:					
	a classroom instruction					
	b conferences with students					
	c instructional preparation					
	d parent-teacher conferences					
	e evaluation of student's work					
	f preparation of reports					
5.12	Each teacher interprets the purposes of a broad Technology Education program to students, parents, colleagues, and the general public.					
5.13	Each teacher exhibits professionalism through membership and participation in professional organizations.					
5.14	Each teacher is aware of current and emerging career opportunities for students in the area of instruction.					
5.15	There is articulation between the local Technology Education program and postsecondary institutions offering further education and training within the discipline.					
6.0	Philosophy, Goals and Objectives					
6.1	The program has goals, course objectives, and a written philosophy that is available for administrators, parents, and students to review.					
6.2	The philosophy emphasizes the broad, general education nature of technology.					
6.3	The program goals and course objectives are consistent with district, state, or national standards.					
6.4	The program goals and course objectives have a balanced approach to helping students learn how technology is developed, produced, used, and assessed by people and institutions.					

Practicing Teachers Self Evaluation

To be completed by each Technology Education teacher on the campus.

Degrees of Knowledge and Proficiency

Use this scoring rubric to assess your current level of proficiency in this domain:

4 = Outstanding proficiency and knowledge

3 = Highly knowledgeable and proficient; low priority need for improvement

2 = Moderately knowledgeable and proficient; moderate need for improvement

1 = Minimally knowledgeable and proficient; high priority need for improvement

Practicing teachers are committed to students and their learning.		1	2	3	4
7.0	IMPLEMENTING INSTRUCTIONAL EFFECTIVENESS. Proficient in the knowledge, dispositions, and skills needed for effective teaching; understands effective teaching results in successful student learning.				
7.1	Has mastery of a variety of teaching methods and implements them effectively in the classroom.				
7.2	Aligns classroom instruction to incorporate global perspectives into school, district, and state essential knowledge and skills.				
7.3	Cultivates an attractive and inviting learning climate that is characterized by acceptance, student self-confidence and desire to learn.				
7.4	Demonstrates skill in the adaptation of instruction to meet the needs of diverse students in multicultural populations.				
7.5	Makes effective use of educational technology in classroom instruction.				
Practicing teachers know the subjects they teach and how to teach those subjects to students.		1	2	3	4
8.0	LEADING CURRICULAR CHANGE. Proficient in curriculum development and implementation; knowledge of curriculum and subject matter is used to create positive change in classrooms, schools, and districts.				
8.1	Demonstrates expertise in current subject curriculum knowledge and processes and global perspectives.				
8.2	Analyses, evaluates and makes changes in curriculum.				
8.3	Aligns classroom curriculum with campus, district and state essential knowledge and skills.				
8.4	Creates interdisciplinary learning activities that enable students to integrate knowledge and skill from different subject areas.				
8.5	Analyses student learning data and utilizes it for program evaluation and curriculum revision.				
8.6	Adapts and implements curriculum to meet the needs of diverse and multicultural student populations.				
8.7	Integrates educational technology as a tool for student learning.				
Practicing teachers are responsible for managing and monitoring student learning.		1	2	3	4

9.0	MANAGING CLASSROOM LEARNING. Manages the classroom learning environment to create success for all students.				
9.1	Demonstrates skill in using standard and authentic assessment tools and strategies to monitor individual and group progress in achieving learning goals.				
9.2	Maintains student engagement in and establishes student responsibility for learning; students are willing, self-responsible and motivated learners.				
9.3	Maintains pertinent records of student work and performance and communicates student progress knowledgeably and responsibly.				
9.4	Uses student learning data in curriculum revision, instructional improvement, and program evaluation.				
9.5	Creates a learning community in which diverse student needs and cultures are respected and accommodated.				
9.6	Makes appropriate use of educational technology to manage the classroom learning environment.				
Practicing teachers think systematically about their practice and learn from experience.		1	2	3	4
10.0	PRACTICING REFLECTIVE ASSESSMENT. Manages continual learning and professional development through continuous reflection about their teaching knowledge, dispositions, skills, and practices.				
10.1	Demonstrates effective problem solving skills utilizing current research, best practice, and performance-assessment data.				
10.2	Is committed to life-long learning and self-analysis of professional practice.				
10.3	Demonstrates commitment to life-long learning and continuous professional development.				
10.4	Makes decisions based on current research and best practice.				
10.5	Engages a diverse classroom of learners in reflection and learning feedback as a basis for experimenting with, reflecting on, and revising practice.				
10.6	Engages a diverse classroom of learners utilizing technology for project-based research and collaborative learning activities.				
Practicing teachers are members of learning communities.		1	2	3	4
11.0	BUILDING LEARNING NETWORKS. Create professional partnerships to create learning opportunities for themselves and their students.				
11.1	Dialogues and collaborates with colleagues to improve curriculum, instruction, and learning environments.				
11.2	Partners with building and district level administrators for school improvement and innovation.				
11.3	Establishes mentor and accountability relationships for instructional improvement leading to greater student successes.				
11.4	Creates productive relationships with individuals and agencies to meet the diverse learning needs of all students.				
11.5	Improves student learning through technology-aided linkage with the national and international educational communities.				

Practicing Teachers *Self Evaluation* of Instructional Strategies

To be completed by each Technology Education teacher on the campus.

The purpose of this section is to assist TEA staff in planning appropriate professional development.

Teaching And Learning	I know nothing about this	I've heard about it, but don't use it	I use this occasionally	I use this frequently	I could teach this to others
Learning Styles					
Problem Solving					
Decision Making					
Team Building					
Cooperative Learning					
Information Retrieval And Use					
Multiple Intelligences					
Integrated Curriculum/ Instruction					
Authentic Assessment					
Mastery Learning / Competency-Based Instruction					
Thematic Instruction					
Portfolios/Techfolios					
Interdisciplinary Instruction					
Reading in the Content Area / Reading Across the Curriculum					
Writing Across The Curriculum					
Technical Reading / Technical Writing					
Project Based Learning					
Community Service					
Comprehensive Guidance (K-12 Career Education)					
Alternative Assessment					

Practicing Teachers *Self Evaluation* of Instructional Strategies

To be completed by each Technology Education teacher on the campus.

The purpose of this section is to assist TEA staff in planning appropriate professional development.

Evaluation and Assessment		I know nothing about this	I've heard about it, but don't use it	I use this occasionally	I use this frequently	I could teach this to others
Written tests	Multiple choice					
	True / False					
	Fill in the blank					
	Matching					
	Essay					
	Short answer					
Student self evaluation						
Rubrics						
Performance / Exhibition / Demonstration based						
Project based - group						
Project based - individual						
Reteaching / resubmitting of work						
Systematic observation						
Portfolios						
Grading with a Point System						
Student designed Rubrics						