Dear Texas Student,

You are probably tired of people asking, “What do you want to be when you grow up?” Some students know exactly what they want to do, but most haven’t got a clue. The idea of choosing a career is intimidating, and it feels like it’s far in the future. There’s little time in the commotion of classes, activities, sports, work, and fun to think about what career you want to pursue after graduation from high school or college.

It pays, though, to take the time to think about your future career. The truth is that you’ll save a lot of time and money if you have a direction in life, as opposed to just finishing high school and worrying about it later. It’s really a matter of dollars and sense. If you choose a career direction now, you can select classes and activities that will make you highly marketable—and highly paid—when you look for work. And it only makes sense to have an idea of what you want to do rather than just wandering aimlessly through school.

Nobody wants that. Not your parents. Not your teachers. Not your friends. They want you to be somebody. They want you to use your talents, follow your interests, and pursue your ambitions to become great at what you love to do in life. That’s what you should want, too.

So the time is right to take charge of your life and think about the future. You need a plan of action for how to get from where you are today to where you want to be in a few years: starting out on a personally and professionally rewarding career.

That’s what Texas CTE is all about. The guide you are holding is one of 16 guides to different career clusters. It is designed to help you make smarter decisions about your education and career options.

You’ve heard the phrase, “Information is power.” Well, this guide is power. It puts you squarely in charge of your future, from creating High School Personal Graduation Plans (see page 5) to choosing college or some other form of education or training after high school. Work with your parents, teachers, and counselors to make decisions, but remind everyone that it is your future at stake and that you are taking charge of it.

Get information. Get a plan. Get a clue about your career direction. It’s alright if that direction changes; choosing a direction now is better than having no direction at all. Just promise yourself that you’ll make smart choices about where to focus your time, energy, and passion.

We’re proud that you are taking steps to plan your career direction, and we pledge that your school, teachers, and counselors will do all they can to help you make wise choices on your plans for success. We wish you the best of luck on your journey.
The World Is Your Stage

AS SHAKESPEARE OBSERVED, ALL THE WORLD’S A STAGE. Whether it’s music, painting, drawing, sculpting, writing, dancing, or any other genre, artistic expression is all around us—on TV and radio, at the movies, in art galleries, on the Web, in our MP3 players. People who work in the Arts, A/V Technology, & Communications cluster may entertain and inform through an ever-growing array of new media forms such as cell phone ringtones, text messaging, and shared online videos. A world of audio-visual (A/V) technology, and communications professionals—including producers and directors, print and electronic journalists, website designers, video game programmers, and multimedia artists—makes it all possible. If you have a calling to be creative, yearn to express yourself, or love using new technologies, then Arts, A/V Technology, & Communications may be the right career cluster for you.

THE TEXAS MUSIC PROJECT WILL AWARD MORE THAN $250,000 IN MUSIC EDUCATION GRANTS TO SCHOOLS AND COMMUNITIES THROUGHOUT TEXAS.

HOT Career Areas

Texas has launched a strategic plan that targets state efforts on six industry clusters that economists say will be the engines of economic growth in Texas. As you plan your future, think about a career in one of these new and emerging sectors.

- Advanced Technologies & Manufacturing
  - Molecular technologist
  - Sensor/robotics engineer

- Aerospace & Defense
  - Aerospace engineer
  - Unmanned autonomous vehicle engineer

- Biotechnology & Life Sciences
  - Bioinformatics specialist
  - Biocontainment technician

- Information & Computer Technology
  - System integrator
  - Computer game developer

- Petroleum Refining & Chemical Products
  - Petrochemical engineer
  - Refinery process design engineer

- Energy
  - Wind/solar energy engineer
  - Geophysical (oil and gas) prospector
WHEN I was in high school," says Sheryl Kovach, Human Resources Director of Environmental Services at Phillips Services Corporation in Houston, "the only job that I even knew about was receptionist work. I didn't aspire to be a manager or entrepreneur because I really didn't know about those disciplines. I was just looking forward to graduating. That was it. I really didn't know what it was I wanted to do."

Sound familiar? You, too, may not have a clue about what to do with your life.

Don't worry, though. Help is right here in your hands. This issue is your guide to education and career choices that can shape your future. It's one of 16 career cluster guides published by Texas CTE (www.txcte.org). This edition is all about Arts, A/V Technology, & Communications.

Let's start with some basic steps you should take to get organized, plan for the future, and start on the road to success.

Assess Your Talents and Abilities

First, you need to figure out some things about yourself. This step can be as simple as writing down a list of your interests (like video games or rock climbing), your hopes and dreams (like helping others), your talents (like writing or math ability), and your weaknesses (if you're squeamish at the sight of blood, for example, you might not want to be a doctor).

Follow up on this informal exercise by taking some formal assessments to determine your interests and abilities. Common assessments include Texas Genuine (www.texasgenuine.org) and CareerTech (www.careertech.org). Ask your principal or counselor about the career assessments available at your school.

Research Your Career Options

Once you've learned about yourself, learn more about your career options. There are thousands of occupations out there of which you may never have heard, and others that do not yet exist because the technologies have not been developed. Fortunately, there are plenty of resources (see inside back cover) for you, and they are as close as the nearest computer.

One of the most helpful is the Texas Career Check from the Texas Workforce Commission. It is a vast database of information about hundreds of professions. You can find Texas Career Check at www.texascareercheck.com. Another good place to start is O*NET (www.onetcenter.org). Gather information about what you can earn in the

AN ESTIMATED $2.62 BILLION WAS SPENT ON FILM PRODUCTION IN TEXAS BETWEEN 1999 AND 2009.
careers in which you are interested. Find out whether the careers you are considering have a promising future—are they adding or losing jobs? Check out the education you'll need to enter those careers.

The chart on pages 10–11 presents data on 25 possible professions. Remember, though, that these are just a sampling of careers available in the cluster. Go to Texas Career Check, O*NET, or another resource to investigate other careers.

Create Your High School Personal Graduation Plan

Once you have a better idea of your interests and abilities, you are ready to plan for high school and beyond. The High School Personal Graduation Plan, is your plan for preparing for the career of your choice.

First, you should choose a career cluster and an endorsement, not a particular occupational goal. In the eighth grade a student might choose Arts, A/V Technology, and Communications and then later become interested in a narrower field such as broadcast technology or graphics design.

The program of study you choose—your plan—does not stop with graduation from high school. A student could then pursue a two-year degree as a broadcast technician or a four-year degree as a graphics designer.

You should set up a High School Personal Graduation Plan that takes you through career preparation after high school, revising your blueprint as needed as you go along. If your career plans include college study, ask your counselor about tests required for admission to college, such as the PSAT, SAT, or ACT.

Seek Out Special Programs

Many Texas schools offer innovative programs to prepare students for specific career areas. These include career and technical education (CTE) programs, academies, and magnet schools. Once you've decided on a career direction, ask your counselor about special programs in your area that may provide related experiences in your chosen career.

Samuel Odamah enrolled in the architecture program at the University of Texas at Arlington, having found his career calling at Dallas's Skyline Career Development Center, a high school with career programs in a number of different fields.

“Skyline is one of the few schools in the country that offers programs in architecture,” Odamah says. “In some careers, Skyline students could even get professional certifications or licenses right in high school. It was a great place because you could find out whether you really wanted to enter a career.”

Odamah says that the career cluster system at Skyline taught him the value of planning for his career and his life. “We learned about planning ahead,” he says. “Those who plan things ahead of time don't have to catch up. It's just a matter of what a person wants out of life. Planning gives you a better platform for success.”

Arts, A/V Technology, & Communication CTSOs

One of the best ways to acquire experience in your chosen career is by joining a career and technical student organization (CTSO). In Arts, A/V Technology, & Communications, the most helpful CTSOs are:

- SkillsUSA  
  www.skillsusa.org
- Business Professionals of America (BPA)  
  www.texasbpa.com
- DECA, Texas Association  
  www.texasdeca.org
- Family, Career and Community Leaders of America (FCCLA)  
  www.texasfccla.org
- Future Business Leaders of America (FBLA)  
  www.txfbla.org
- Texas Technology Students Association (TSA)  
  www.texastsa.org
WHAT ARE Career Clusters & Programs of Study

In Texas, High School Personal Graduation Plans will guide students' high school and college experiences (see next page). As part of this process, students focus their studies within a chosen career cluster and program of study that lead to an endorsement.

A career cluster is a group of occupations and broad industries that share certain features. The Arts, A/V Technology, & Communications cluster, for example, includes fashion designer and musician. Texas has adopted 16 career clusters (see back cover), the same ones designated and developed by the U.S. Department of Education.

As the graphic below shows, within each cluster are programs of study, which are more specific groupings of similar occupations. Think of a program of study as being like a college major. In Arts, A/V Technology, & Communications, you might choose to focus on Journalism & Broadcasting in high school and college.

Related Occupations
Each program of study includes a range of related occupations; reporter/correspondent is an example of an occupation that falls within Journalism & Broadcasting. Choosing a career cluster and program of study will help you acquire the knowledge and skills you'll need to enter your chosen career. It will allow you to follow a seamless course of study from high school into college or other postsecondary education or training. The electives you choose can complement your core academic classes to prepare you for the challenges of the real world of work.

Review Your High School Personal Graduation Plan Each Year
Don't get locked into a cluster and program of study you don't like. You should reexamine your 4-year plan at least once a year and change programs or clusters if your interests have changed. Choosing a cluster and program of study, even if it changes later, means that you'll have a direction in life. The idea is to be aware of what's going on in your life and take control of your future. When you know where your education is going and why, your classes will become more meaningful. You'll make contact with students, teachers, and employers who share your interest in a particular career area. You'll have experiences that are fun and exciting. You'll be on your way to success in school, in a career, and in life.

<table>
<thead>
<tr>
<th>Programs of Study</th>
<th>Example Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIO &amp; VIDEO TECHNOLOGY &amp; FILM</td>
<td>AUDIO/VIDEO TECHNICIAN</td>
</tr>
<tr>
<td>JOURNALISM &amp; BROADCASTING</td>
<td>REPORTER &amp; CORRESPONDANT</td>
</tr>
<tr>
<td>PERFORMING ARTS</td>
<td>MUSICIAN</td>
</tr>
<tr>
<td>PRINTING TECHNOLOGY</td>
<td>GRAPHIC DESIGNER</td>
</tr>
<tr>
<td>VISUAL ARTS</td>
<td>FASHION DESIGNER</td>
</tr>
</tbody>
</table>

Arts, A/V Technology & Communications
WHAT IS A High School Personal Graduation Plan

It’s a smart idea to create a High School Personal Graduation Plan, or 4-year plan, to guide your studies through high school and into college or other postsecondary education or training. Your 4-year plan represents your chance to take control of your education and career choices. Working with your parents/guardians and guidance counselor, you can pick the cluster on which you want to focus your studies as well as your career and postsecondary education goals. Don’t worry. You aren’t locked into your choices. You should revisit your 4-year plan at least once a year to update it. You can change clusters, programs of study, and career and postsecondary goals as your interests and ambitions change. Having a plan—even if it changes—is smarter than having no idea of what you want to do and why you are attending school. Here’s how to fill out your 4-year plan.

- **CHOOSE** a career cluster on which to focus your high school and college or postsecondary studies. The idea is to offer you a seamless route to follow from high school, through college or other postsecondary education, and into a career. Not all Texas schools offer all clusters, so ask your guidance counselor which clusters are available at your school.

- **LIST** basic information such as your name and school.

- **PICK** a program of study within the cluster. There are six programs within the Arts, A/V Technology, & Communications cluster (see page 12).

- **CHOOSE** one or more occupations for which you would like to prepare. Use resources such as Texas Career Check (www.texascareercheck.com) to research your options.

- **PLAN** for what you want to do after high school. Your goal may be to attend a four-year university or two-year college, join the military, or enter an apprenticeship program. Your postsecondary goal should influence the classes you take in high school; for example, you will need certain course credits to qualify for admission to a college.

- **SKETCH** out your schedule of classes for your high school years. Most of your time will be spent taking your core academic courses. By carefully selecting your electives, you can get the education and experience you need to start toward the profession of your choice.

- **PICK** extended learning activities that complement your classes (see page 14). Work on community service projects. Plan for paid and unpaid career learning experiences, such as job shadowing and internships. All these extracurricular activities can give you experience that will help you get into college or land a job.

---

**High School Personal Graduation Plan**

- **Name:** Taylor Jones
- **School:** Springfield High School
- **Cluster:** Arts, A/V Technology, & Communications
- **Program of Study:** Journalism & Broadcasting
- **Career Goal:** Reporter/Correspondent
- **Postsecondary Goal:** Bachelor’s Degree in Journalism

<table>
<thead>
<tr>
<th>9th Grade</th>
<th>10th Grade</th>
<th>11th Grade</th>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra I</td>
<td>Geometry</td>
<td>Algebra II</td>
<td>Precalculus</td>
</tr>
<tr>
<td>English I</td>
<td>Geometry</td>
<td>English II</td>
<td>English IV</td>
</tr>
<tr>
<td>Biology</td>
<td>Chemistry</td>
<td>Physics</td>
<td>Environmental Systems</td>
</tr>
<tr>
<td>World Geography</td>
<td>World History</td>
<td>U.S. History</td>
<td>Government/Economics</td>
</tr>
<tr>
<td>Languages Other Than English</td>
<td>Languages Other Than English</td>
<td>Professional Communication</td>
<td>Fine Arts</td>
</tr>
<tr>
<td>Physical Education</td>
<td>A/V Production OR Commercial Photography OR Journalism OR Debate OR Career Preparation</td>
<td>Advanced Media Production OR Commercial Photography OR Journalism OR Debate OR Career Preparation</td>
<td></td>
</tr>
</tbody>
</table>

Curricular Experiences: Business Professionals of America (BPA), Future Business Leaders of America (FBLA), SkillsUSA, TSA.

Extracurricular Experiences: Art Organizations, Drama/Theater Clubs, Career Learning Experiences: Career Preparation—Paid and Unpaid, Internships, Job Shadowing, Apprenticeships, Service Learning Experiences: Art Organizations, Tutoring/Mentoring Programs, Volunteer Centers

A CAREER PORTFOLIO (see page 15) is a good way to organize information about your educational experiences, record results of career interest and abilities assessments, and hold examples of your best work. Include a 4-year plan in your portfolio.
Persistence and Passion

OPPORTUNITIES FOR SUCCESS in the arts are many and varied, but you’ve got to supply the passion to make it happen.

The blessing and the challenge of any of the communications fields is that students can do almost anything they want,” says Matt Berndt, director of career services for the University of Texas at Austin’s College of Communication. “But they have to play the lead role in determining what that might be.”

In Arts, A/V Technology, & Communications, success will be limited only by students’ talents and drive. “Dogged persistence is the key when dealing with the arts,” says Lynne Cox, project coordinator of trade and industrial education at the University of North Texas in Denton and executive director of the Visual Arts Society of Texas.

A Variety of Careers

The careers in this cluster are varied, including audio recording, television and film technology, printing and publishing, the visual arts, the performing arts, journalism, broadcasting, and telecommunications. Each of these categories, in turn, offers a number of specialties.

As might be expected, salaries vary widely in Arts, A/V Technology, & Communications, but the jobs that require more knowledge and training generally pay more.

In the A/V field, for example, the Texas Workforce Commission reports that motion picture projectionists can become qualified for the job with as little as one month’s training, but salaries are low, with even experienced projectionists earning little more than $18,000 annually. Sound engineering technicians, by contrast, require advanced training and, in some cases, professional licenses. Salaries average $41,000 in Texas.

College pays off. Public relations specialists with four-year degrees can start out making more than $31,000 annually. With experience, PR salaries approach $125,000 a year, and PR managers can earn up to $166,000.

This is a projection of 10 fast-growing careers in Arts, A/V Technology, & Communications in Texas from the year 2008 to 2018 and the number of new jobs created in each occupation. Note that while the percentage of growth in jobs may be high, the actual number of jobs created may be low. Source: Texas Workforce Commission.

### 10 Fast-Growing Careers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpreter or Translator</td>
<td>35.0%</td>
<td>244</td>
</tr>
<tr>
<td>Audio and Video Equipment Technician</td>
<td>32.0%</td>
<td>180</td>
</tr>
<tr>
<td>Multi-media Artist or Animator</td>
<td>31.0%</td>
<td>383</td>
</tr>
<tr>
<td>Craft Artist</td>
<td>30.0%</td>
<td>26</td>
</tr>
<tr>
<td>Set and Exhibit Designer</td>
<td>29.0%</td>
<td>87</td>
</tr>
<tr>
<td>Artists and Related Worker</td>
<td>25.0%</td>
<td>8</td>
</tr>
<tr>
<td>Librarian/Librarian Technician</td>
<td>23.5%</td>
<td>841</td>
</tr>
<tr>
<td>Technical Writer</td>
<td>23.0%</td>
<td>185</td>
</tr>
<tr>
<td>Public Relations Specialist</td>
<td>21.0%</td>
<td>463</td>
</tr>
<tr>
<td>Film and Video Editor</td>
<td>21.0%</td>
<td>39</td>
</tr>
</tbody>
</table>

There are more than 1,200 free radio and television stations in Texas.
### 10 Top-Paying Careers

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Average Wage</th>
<th>Entry-Level Wage</th>
<th>Experienced Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Director</td>
<td>$38.59</td>
<td>$21.65</td>
<td>$47.06</td>
</tr>
<tr>
<td>Broadcast News Analyst</td>
<td>$37.44</td>
<td>$12.15</td>
<td>$80.00*</td>
</tr>
<tr>
<td>Producers and Directors</td>
<td>$32.54</td>
<td>$12.09*</td>
<td>$55.61*</td>
</tr>
<tr>
<td>Film and Video Editors</td>
<td>$31.63</td>
<td>$12.06</td>
<td>$41.41</td>
</tr>
<tr>
<td>Media/Communications Equipment Workers</td>
<td>$29.45</td>
<td>$10.72</td>
<td>$37.63*</td>
</tr>
<tr>
<td>Technical Writers</td>
<td>$28.24</td>
<td>$18.63</td>
<td>$33.05</td>
</tr>
<tr>
<td>Public Relations Specialist</td>
<td>$27.37</td>
<td>$15.33</td>
<td>$33.39</td>
</tr>
<tr>
<td>Commercial and Industrial Designers</td>
<td>$26.19</td>
<td>$15.67</td>
<td>$31.45</td>
</tr>
<tr>
<td>Writers and Authors</td>
<td>$26.14</td>
<td>$14.93</td>
<td>$31.74</td>
</tr>
<tr>
<td>Multimedia Artists and Animators</td>
<td>$25.36</td>
<td>$22.86*</td>
<td>$37.63*</td>
</tr>
</tbody>
</table>

This is a chart of hourly wages for 10 of the top-paying careers in the Arts, A/V Technology, & Communications cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.

* Where entry level salary and experienced salary were not available, salary levels for employees in the lowest 10% and the highest 10% pay range in the field respectively have been substituted. Source: U.S. Bureau of Labor and Statistics.

### Be Flexible

If students are flexible enough to see the full range of different directions their talents might lead them, they are a lot more likely to succeed. Public relations, for instance, spans a number of different job opportunities, says Jerry C. Hudson, academic dean of the College of Mass Communications at Texas Tech University in Lubbock. “The field includes event planning,” Hudson says, “or students could work for corporations, hospitals, or nonprofit organizations.”

And Becky Kores, a teacher of graphic design and illustration at Dallas’s Skyline High School, reports that her students have found jobs “all the way from tattoo art—which is not my focus—to being animators for video games, comic book artists, and medical illustrators. Some students work for ad agencies, some for printers. Some students become art teachers. It’s all over the board.”

These choices can make a difference. The Texas Workforce Commission projects that although the number of Texas writers and authors will grow 13 percent between 2008 and 2018, the number of technical writers in the state will grow 23 percent, more than twice as fast. The work is different as well. Technical writers are more specialized; they must not only write well, but be able to understand and clearly describe complicated technical processes.

### Get Experience

If your goal is a career in the arts, you probably already have identified your particular interests. The trick is to figure out how to find your way to an occupation that lets you use your talents.

“There aren’t linear career routes as you might see in accounting or engineering. Our students will go to a wide variety of places,” says UT Austin’s Berndt. “Our graduates are working as publicists, journalism teachers, marketing coordinators, copywriters, in sales and account management, in advertising, in intelligence, in public affairs, and in the publishing business.”

Berndt stresses that working on your business and marketing skills can yield big dividends in Arts, A/V Technology, & Communications. “Students are not marketable just because they have a communications degree. They have to define their skills and qualifications and interests to potential employers,” says Berndt. “The same can be said for radio, TV, or film degrees as well.

“Students can’t just study,” Berndt adds. “They have to gain experience through internships, or working in student media. Their education is only the start. Without that experience, they’re underqualified.”

Cox says you have to cultivate a rock-solid belief in your own talent. “For every time you hear, ‘that’s great,’ you might hear five or 10 people say ‘I really don’t like that.’ To really succeed, you have to have a confidence, persistence, and passion.”

---

### Is Arts, A/V Technology, & Communications the right cluster for you?

Take this quiz to find out. Answer “yes” or “no” to the following questions.

1. Do you have an active imagination?
2. Do you like to visit art museums?
3. Do you like to read short stories and novels more than how-to books?
4. Is it important to you to express your feelings?
5. Do you play a musical instrument?
6. Do you like to draw?
7. Have you ever acted in a school play?
8. Are you independent and creative?
9. Do you know how to set up sound equipment?
10. Do you like decorating your room?

If you answered “yes” to five or more of the above questions, Arts, A/V Technology, & Communications may be the right cluster for you. To get a more specific and scientific measurement of your attitudes and abilities, ask your guidance counselor or teacher about taking a career assessment test or interest inventory.
What Employers Want

PRACTICAL EXPERIENCE
In Arts, A/V Technology, & Communications, practical experience can count as much as classwork. Classwork doesn't always teach you the day-to-day requirements of a profession, and employers aren't always willing to pay for on-the-job training.

“Get as many internships as you can,” advises Craig Bean, public service manager for the Texas Association of Broadcasters. High school and college students can find opportunities as unpaid interns, earning school credit while learning the fundamentals of a career.

And internships can lead to permanent employment. “When I was a hiring manager at an Austin television station, I hired about 50 percent of my interns,” Bean says. He could judge students’ skills and work ethic by working with them, side by side. “They were on site, using the equipment they’d use if they were employed.”

GOOD BUSINESS ATTITUDE
Practical business skills and a dash of common sense are a plus. “Most young people don’t have a sense of which type of communication is most important—face-to-face, email, phone—or how to use it,” says Judith Manriquez, a partner at the Georgetown marketing communications firm GX Creative Communications. “If you give young employees a problem, they send an email. Then, two days later, you ask if they solved the problem and they tell you, ‘I sent out an email, but no one answered.’ Well, hello! Use the telephone!”

SELF-CONFIDENCE
“I need someone to be able to pick up the phone and say, ‘I don’t know you, and you don’t know me, but I’ve got something great,’” says Patti Hill, chief executive officer and founder of Austin-based Penman PR, a leading Texas public relations firm. “So I make it very difficult for job candidates. I make them jump through a fair number of hoops. It’s a little rude, but I’m trying to gauge how people will react to different situations.”

SELLING SKILLS
Hill says her field involves a lot of selling skills. “If you come out of school with a communications degree, and you get sales experience, you’re a whole lot more marketable,” Hill says. “There has to be some ability to sell yourself, because if you can’t do it well enough to win an account, you won’t be able to sell yourself to the media either.”

Winning Combinations
Careers that combine technology, science, and the arts are not as uncommon as you might think. Anne Zanikos studied biology and chemistry in school, but now she’s self-employed as an art conservator in San Antonio. It turns out that knowledge of biological and chemical processes is required to clean and restore old paintings and sculpture without harming them.

“My specialty is painting,” Zanikos says. “In my day, I may examine a painting to determine its problems, and determine treatment options that will preserve it for years to come.”

Combine IMAGINATION, HEART, AND BUSINESS SAVVY to build a successful career.

You never know where an interest in Arts, A/V Technology, & Communications can take you.

Laura Grace House was “one of the kids who, when I saw a squished frog on the road, got a stick and turned it over. My mother’s a biology teacher, and I loved all her biology books—I just thought they were wonderful.”

House also had a talent for art, but it wasn’t until she graduated from college that she realized she could combine both loves in a career as a medical illustrator. “I always wanted to do this, I just didn’t know it was a job!” House says.

Based in Dallas, she now uses her skills to educate through pictures. “When surgeons develop new techniques, we’ll illustrate what they are doing,” says House. “Or you’ll find people who are interested in writing a textbook, or want to sell a new medical product—it’s a variety of possibilities.”

Doing What You Love

Wendy Wheeler, an Austin-based communications manager for CSC, a major information technology firm, crafted her career out of two other loves—language and computer technology. “When I was growing up, I could always write quickly and clearly,” she says. “I loved to read, and I believe that reading teaches you how to write well.”

While working at a savings and loan association, she became interested in electronic banking systems. “I came to realize that I really enjoyed doing communications for high-tech subjects,” Wheeler says. “In a typical day, I’m writing brochures, data sheets, or flyers, and managing direct-mail and email campaigns.”

Winning Combinations
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TEXAS COLLEGE STUDENTS CAN APPLY TO INTERN WITH THE TEXAS FILM COMMISSION IN AUSTIN.
Sell Yourself

Doing what you love is important in the arts, but you also have to find clients who are willing to pay you to do what you love. To make a living in the creative fields, the first thing you have to sell is yourself.

"Professionals in the arts have to find a balance between self-expression and conditions in the marketplace," says Lynne Cox, a project coordinator at the University of North Texas in Denton and president of the Visual Arts Society of Texas. "Obviously, creativity is important, and a sense of pride in what the artist is producing—in authentic self-expression. But entrepreneurship is a very important skill, too. Professionals have to be able to market their work, to promote themselves, or they’re out of business. They have to take a risk and put themselves out there. They have to have a self-starter’s mentality."

Building Your Reputation

"As in any other business, marketing is important—we have to let people know we’re here," says Zanikos. "We depend on word of mouth and reputation." House agrees. "I constantly need to get out there and meet and find new customers, and help them find me,” she says. When medical illustration isn’t available, House turns to other forms of art to pay the bills.

"I’m a technical illustrator, too,” she says. “So one week, I’m illustrating oil wells, the next week I’m depicting a surgical procedure that went wrong, the next week I’m explaining how cell phones work.”

Your Art, Your Business

No matter what creative field students pursue, they have to remember that it’s a business first and last.

Even the glamorous world of fashion design is ruled by hard dollars-and-cents judgments. “Our students definitely have to be able to understand profit and loss, and the costing of garments—how much it actually costs to produce them,” says Deborah Young, program director for fashion and textiles at Texas Woman’s University in Denton. "We spend lots of time talking about costing, markup, and profits."

Many professionals in Arts, A/V Technology, & Communications are freelancers or small business owners, and being your own boss carries certain responsibilities. “I’m running a business, with all its aspects, from employees to billing and bookkeeping and that sort of thing,” says Zanikos.

Learn Business

House says few artists are taught the ins and outs of business and, as a result, often have no idea how to negotiate a fee or manage a budget. “Observe someone who runs their own business,” she advises, “like a family-owned business, even if it’s a florist shop, because the same principles apply.”

“I’d encourage students to take business courses, particularly accounting,” says Cox. "I think some students expect a career to fall in their laps, and it just doesn’t work that way.”

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5 Cool Careers

CHECK OUT THESE EXCITING CAREERS IN ARTS, A/V TECHNOLOGY, & COMMUNICATIONS.

1. PHOTOGRAPHER
   If you have a good eye for composition, and can cope with deadline pressures, you might consider a career as a photographer. Photography is really a collection of professions—you can earn a living with a camera in studio photography, advertising, magazine and newspaper journalism, and the sciences, to name a few career paths. At its most glamorous, the career can take you to exotic locations photographing famous people.

2. MULTIMEDIA AND ANIMATION ARTIST
   Multimedia artists and animators create special effects, animation, and other images for television, film, and the burgeoning field of computer gaming, which is fast becoming a major Texas industry. Texas has more than 70 game development companies, with major pools of jobs and talent in Austin and Dallas. You’ll use computers extensively—and may even get to play your own creations.

3. FASHION DESIGNER
   If you have a good eye for color, line, and form in clothing—and a solid grasp of business fundamentals—you might find a place in the world of fashion design. “Dallas is a regional fashion market,” says Deborah Young, program director for fashion and textiles at Texas Woman’s University in Denton. “It’s probably third in size in the country, after New York and Los Angeles. There are jobs in Houston and San Antonio as well.”

4. PRINT JOURNALIST
   If you’ve got a nose for news and a talent for the written word, consider a career as a reporter or correspondent. It’s an exciting time in the field right now—the circulation of traditional newspapers is falling across the country, but their Internet sites are growing rapidly. The rise of Internet-based journalism is generating a whole new range of job opportunities.

5. MUSIC PERFORMER
   Music may be the first career many high school students think of when the arts are mentioned. And if you work hard and long enough, and love it enough, you may make a living in music or singing—but remember that the field is fiercely competitive. As a performer, you’ll stand a better chance of success if you can play more than one instrument and are comfortable with multiple musical styles.
## Arts, A/V Technology, & Communications

Listed below are 25 careers you might consider in the Arts, A/V Technology, & Communications cluster. These are not all the career options in the cluster—they are just a sampling showing the variety of occupations available to you at different education levels. Turn to the “Online Info” on the inside back cover to research all career options in the cluster of your choice and decide on the ones that best fit your talents and ambitions. Here’s an explanation of the kind of information presented in each column.

### SOC: Stands for Standard Occupational Code, which organizations like the U.S. Department of Labor use to categorize career information. Sometimes you can find data on a career faster by searching for its SOC.

### Growth: This is the projected annual growth in Texas for the career between 2008 and 2018. Fast-growing occupations may offer greater career opportunities for young adults.

### Openings: This is the projected number of job openings for the career in Texas each year. Even though a career may be fast growing, there may not be a lot of positions available. Careers with more openings will give an entry-level worker a better chance of getting a job and greater job security.

### Wages: This is the amount the average person in the career earns in Texas per year. Naturally, entry-level wages are lower than the average, and those for workers with years of experience are generally higher.

### Education

<table>
<thead>
<tr>
<th>SOC</th>
<th>Occupation</th>
<th>Growth</th>
<th>Openings</th>
<th>Wages</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-4021</td>
<td>Librarian</td>
<td>24.0%</td>
<td>546</td>
<td>$50,756</td>
<td>Master's degree</td>
</tr>
<tr>
<td>27-2012</td>
<td>Producer and Director</td>
<td>14.0%</td>
<td>218</td>
<td>$67,689</td>
<td>Bachelor's plus experience</td>
</tr>
<tr>
<td>27-1011</td>
<td>Art Director</td>
<td>13.0%</td>
<td>152</td>
<td>$80,265</td>
<td>Bachelor's plus experience</td>
</tr>
<tr>
<td>27-2041</td>
<td>Music Director and Composer</td>
<td>11.0%</td>
<td>143</td>
<td>$50,824</td>
<td>Bachelor's plus experience</td>
</tr>
<tr>
<td>27-3043</td>
<td>Writer and Author</td>
<td>13.0%</td>
<td>204</td>
<td>$54,367</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>27-3042</td>
<td>Technical Writer</td>
<td>23.0%</td>
<td>185</td>
<td>$58,748</td>
<td>Long-term on-the-job training</td>
</tr>
<tr>
<td>27-3031</td>
<td>Public Relations Specialist</td>
<td>21.0%</td>
<td>463</td>
<td>$56,931</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>27-1014</td>
<td>Multimedia Artist and Animator</td>
<td>31.0%</td>
<td>383</td>
<td>$52,739</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>27-1024</td>
<td>Graphic Designer</td>
<td>16.0%</td>
<td>610</td>
<td>$44,001</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>27-4012</td>
<td>Broadcast Technician</td>
<td>14.0%</td>
<td>137</td>
<td>$36,115</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>27-4014</td>
<td>Sound Engineering Technician</td>
<td>20.0%</td>
<td>40</td>
<td>$41,219</td>
<td>Postsecondary award</td>
</tr>
<tr>
<td>43-9031</td>
<td>Desktop Publisher</td>
<td>10.0%</td>
<td>61</td>
<td>$39,546</td>
<td>Postsecondary award</td>
</tr>
<tr>
<td>27-4032</td>
<td>Film and Video Editor</td>
<td>21.0%</td>
<td>39</td>
<td>$65,786</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>27-2011</td>
<td>Actor</td>
<td>17.0%</td>
<td>70</td>
<td>$34,507</td>
<td>Long-term on-the-job training</td>
</tr>
<tr>
<td>27-1013</td>
<td>Fine Artist, Including Painter, Sculptor, and Illustrator</td>
<td>14.0%</td>
<td>56</td>
<td>$45,476</td>
<td>Long-term on-the-job training</td>
</tr>
<tr>
<td>27-4021</td>
<td>Photographer</td>
<td>15.0%</td>
<td>346</td>
<td>$29,716</td>
<td>Long-term on-the-job training</td>
</tr>
<tr>
<td>27-2042</td>
<td>Musician and Singer</td>
<td>10.0%</td>
<td>378</td>
<td>$58,882</td>
<td>Long-term on-the-job training</td>
</tr>
<tr>
<td>27-4011</td>
<td>Audio and Video Equipment Technician</td>
<td>33.0%</td>
<td>179</td>
<td>$38,405</td>
<td>Long-term on-the-job training</td>
</tr>
<tr>
<td>27-2031</td>
<td>Dancer</td>
<td>11.0%</td>
<td>64</td>
<td>$25,418</td>
<td>Long-term on-the-job training</td>
</tr>
<tr>
<td>25-9011</td>
<td>Audio-Visual Collections Specialist</td>
<td>5.0%</td>
<td>17</td>
<td>$47,173</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>27-4031</td>
<td>Camera Operator for Television, Video, and Motion Pictures</td>
<td>19.0%</td>
<td>27</td>
<td>$34,737</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>27-1027</td>
<td>Set and Exhibit Designer</td>
<td>29.0%</td>
<td>46</td>
<td>$43,590</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>51-5023</td>
<td>Printing Machine Operator</td>
<td>11.0%</td>
<td>381</td>
<td>$30,728</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>25-4031</td>
<td>Library Technician</td>
<td>23.0%</td>
<td>295</td>
<td>$25,131</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>39-3031</td>
<td>Usher, Lobby Attendant, and Ticket Taker</td>
<td>24.0%</td>
<td>863</td>
<td>$25,131</td>
<td>Short-term on-the-job training</td>
</tr>
</tbody>
</table>
These are not all the career options in the cluster—they are just a sampling showing the variety of opportunities in the profession for people of all education levels. For example, about 25 percent of the people working as sound engineering technicians have a high school diploma, while 42 percent have some college, and 33 percent have four-year degrees or better.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Job Description</th>
<th>High School Percentage</th>
<th>Some College Percentage</th>
<th>College or Better Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actor</td>
<td>Play parts in stage, television, radio, video, or motion picture productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of guests, set design, sound, special effects, and choreography.</td>
<td>23.0%</td>
<td>21.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Writer and Author</td>
<td>Originate and prepare written material, such as scripts, stories, advertisements, and other material.</td>
<td>24.0%</td>
<td>11.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Dancer</td>
<td>Conduct, direct, plan, and lead instrumental or vocal performances by musical groups, such as orchestras, choirs, and glee clubs. Includes arrangers, composers, choral directors, and orchestrators.</td>
<td>23.0%</td>
<td>18.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Librarian</td>
<td>Assist librarians by helping readers in the use of library catalogs, databases, and indexes to locate books and other materials; by answering questions that require only brief consultation of standard reference. Compile records; sort and shelve books; remove or repair damaged books; register patrons; check materials in and out of circulation. Replace materials in shelving area (stacks) or files.</td>
<td>25.0%</td>
<td>15.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Graphic Designer</td>
<td>Formulate design concepts and presentation approaches, and direct workers engaged in artwork, layout design, and copywriting for visual communications media, such as magazines, books, newspapers, and packaging.</td>
<td>25.0%</td>
<td>16.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Multimedia Artist and Animator</td>
<td>Create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials.</td>
<td>25.0%</td>
<td>18.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Technical Writer</td>
<td>Formulate design concepts and presentation approaches, and direct workers engaged in artwork, layout design, and copywriting for visual communications media, such as magazines, books, newspapers, and packaging.</td>
<td>25.0%</td>
<td>16.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Music Director and Composer</td>
<td>Conduct, direct, plan, and lead instrumental or vocal performances by musical groups, such as orchestras, choirs, and glee clubs. Includes arrangers, composers, choral directors, and orchestrators.</td>
<td>23.0%</td>
<td>18.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Cameraman</td>
<td>Set up and/or operate audio and video equipment, including microphones, sound speakers, video screens, projectors, video monitors, recording equipment, sound and mixing boards, and related electronic equipment for concerts, sports events, meetings and conventions, presentations, and news conferences.</td>
<td>25.0%</td>
<td>18.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Multimedia Artist and Animator</td>
<td>Create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials.</td>
<td>25.0%</td>
<td>16.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Camera Operator for Television, Video, and Motion Pictures</td>
<td>Set up, operate, and maintain the electronic equipment used to transmit radio and television programs. Control audio equipment to regulate volume level and quality of sound during radio and television broadcasts. Operate radio transmitter to broadcast radio and television programs.</td>
<td>23.0%</td>
<td>18.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Fine Artist, Including Painter, Sculptor, and Illustrator</td>
<td>Fine artists create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials.</td>
<td>25.0%</td>
<td>18.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Librarian</td>
<td>Assist librarians by helping readers in the use of library catalogs, databases, and indexes to locate books and other materials; by answering questions that require only brief consultation of standard reference. Compile records; sort and shelve books; remove or repair damaged books; register patrons; check materials in and out of circulation. Replace materials in shelving area (stacks) or files.</td>
<td>25.0%</td>
<td>18.0%</td>
<td>16.0%</td>
</tr>
</tbody>
</table>
In 2005, Denise Harman’s students in the Lewisville Independent School District staged a rock concert. They found a venue, booked 12 bands, created T-shirts and had them silk-screened, made posters, promoted the event, rounded up sound equipment and audio engineers, and got food from a local vendor to serve at the snack bars.

“They did every bit of the legwork,” Harman says proudly. “They did all the promotional work. They were responsible for the budget.”

Students put their advertising and design skills into action for a good cause. They were able to donate several thousand dollars to the Second Chance SPCA animal shelter.

Real-World Experience
Creative projects like Harman’s are one of many ways Texas high schools help their students prepare for a career in Arts, A/V Technology, & Communications.

Harman, a graphics design and illustration instructor at the Dale Jackson Career Center in Lewisville, looks for charities that could benefit from free ad campaigns created by her students. “I try to get students to do work that serves the community,” she explains. “I could open a really competitive advertising agency using these students.”

Build on the Basics
Jackson Career Center students, and students in the arts across Texas, build their artistic expertise on a foundation of rigorous academic basics.

“English is generally a very important subject for advertising, journalism, printing and graphic arts, desktop publishing, and drama,” notes Lynne Cox, project coordinator at the University of North Texas in Denton. Students interested in careers in printing and A/V also benefit from mastery of math and science skills.

Because many people in Arts, A/V Technology, & Communications...
Mark Harman, who works with his wife, Denise, at the Dale Jackson Career Center, teaches Animation. His students learn 2-D and 3-D techniques used in Shrek, The Simpsons, and Toy Story. Media Technology I at the school includes up-to-date training for employment in motion picture, video, audio, and TV production. Students learn to operate different types of cameras. They experiment with electronic editing, signal control, and monitoring equipment.

2-D and 3-D

Creating a Portfolio
Denise Harman’s graphic design and illustration students also utilize technology. They learn digital photography and software programs such as Adobe Photoshop, Illustrator, and InDesign.

“Most of the students have an online portfolio, a digital portfolio on DVD or CD, and a print portfolio,” she says. “I try to have the students portfolio-ready before they leave high school so they can secure a job or go to college or design school.”

Digital Media Technology

Fundamentals of Art
Cox, a trained architect, photographer, and quilter, appreciates the fundamentals of art—knowledge of composition, balance, harmony, and contrast—that she learned as a student at Skyline High School in Dallas. The fundamentals apply to all her work, she says.

Cox, who is also executive director of the Visual Arts Society of Texas, advises students to master business fundamentals to help with self-promotion. She adds that “technology is a huge component of nearly every career in this cluster. Anyone interested in the arts should take courses in technology. Even in the visual arts, technology is playing an increasing role in the production and marketing of images.”

Electives for All
Meaningful elective courses related to the arts are available to students in Texas high schools. In addition to the traditional offerings such as Theater, Band, Music, Art, Journalism, and Speech Communications, there are specialized career and technical education (CTE) programs that offer preparation in particular fields.

Imagine the chance to take electives such as Animation, Audio Video Production, Fashion Design, Commercial Photography, Graphic Design and Illustration, and more. Seem impossible? These electives make sense when you look at the six programs of study in the Arts, A/V Technology, and Communications cluster (see “Program Profiles” at left).
Michael Schwerin has a master’s degree in music theory earned as a Priddy Fellow at the University of North Texas in Denton, as well as a bachelor’s degree in mathematics and trumpet performance. His degrees stand out on his resume, but when it comes to day-to-day performance as marketing director for the Waterbury Symphony Orchestra in Connecticut, an internship he had with the Greater Denton Arts Council may have been just as important to his career.

Schwerin says he draws on skills learned in his internship every day. Margaret Chalfant, the council’s executive director, had him writing press releases and learning budgeting and grant writing.

Extend Learning
Learning your art in a high school or college classroom is a good way to start down the road to success, but careers in Arts, A/V Technology, & Communications are built by perfecting skills in real-world settings. Such career learning experiences are called “extended” learning because they take learning outside the classroom.

“We think it would be a mistake to leave this teaching to the schools,” says Susan Smith, audio video production instructor at the Career and Technical Education Center serving three high schools in Edinburg. “I reinforce what you’ve learned in class, but also let students know what they’ve learned is what’s being practiced in the workplace.”

Internships
Internships are available to students in many forms. Internships such as Michael Schwerin’s are part-time or summer jobs that can help students learn more about careers in the arts. Interns tend to focus as much on learning as on employment. Their temporary position allows them to gain specific skills.

“My other hat,” he adds, “was to help edit the magazine, when I was 16 and 17.”

Even if a part-time or summer job is not an internship organized to help students acquire particular skills, employment can still be a valuable learning experience. Kraig Springer, for example, worked in high school on his father’s magazine, the Red Angus Journal. He learned about editing and publishing.

“The fact that my dad’s a writer and editor was a plus,” Springer says. “But I was in charge of doing that—bringing in computerized type. Before that it was all pasteup and layout.”

Work in Your Field
After-school employment experience in a chosen field can prove valuable, whether it’s in dance, design, printing, or painting. Even if the job is as a courier or office worker, students will gain

THE $30,000 ARTHOUSE TEXAS PRIZE IS THE LARGEST REGIONAL VISUAL ARTS AWARD FOR EMERGING ARTISTS IN THE UNITED STATES.

Students EXPERIENCE CREATIVITY outside the classroom and pick up important career skills.
a better understanding of the field and might also make good contacts for the future. Meanwhile, they’ll be learning work habits, such as reliability, punctuality, and teamwork, that can take them far no matter what their career goals.

Volunteering

Students can learn a lot whether they’re paid or not. Smith’s students in audio and video production help out at their local public television station. “When they have telethons, students volunteer on the telephones. Sometimes they have actually run cameras,” she says. “They’re doing community service work, but they’re doing it in a television station, so they also get to see that side of the production while it’s going on. They get a lot of really good experience that way.”

Students also volunteer to tape their high school football games. “This is Texas. Football’s very popular,” Smith says, and the fast pace of play gives the student video operators a challenging learning experience. “The team doesn’t stop and redo it for you,” Smith notes.

Job Shadowing

Job shadowing is another way Smith’s students learn outside the classroom. By following a professional as he or she goes through a day at work, job shadowers gain an up-close perspective that lets them judge whether the field would be a good fit for them.

Smith’s students have shadowed TV reporters, editors, and station managers. At radio stations they have sat in as disc jockeys did their shows.

“Most of them shadowed jobs in which they were interested,” Smith says. “They got an idea of how fast-paced things are and the variety of jobs behind the scenes.”

CREATE a Career PORTFOLIO

One valuable tool that can help you get ready for college and beyond is a career portfolio—a collection of items that document your achievements both in and out of school, assembled in one convenient package.

A career portfolio is not simply a resume, although it can certainly include one. So what should go in a career portfolio? A variety of things, depending on your own personal experiences. It could include transcripts and grades; writing samples; letters of recommendation from teachers, mentors, or employers; awards you’ve received; and items that document other activities, such as internships and job shadowing experiences.

“You need to be specific—dates, how many years, any awards, what they meant, and who you received them from,” says Grace Brauchle, who helps students put their portfolios together as the career center coordinator for Lehman High School in Kyle.

Brauchle says portfolios come in handy when students apply for jobs or admission to college. “First impressions are a very big thing,” she says, “and you want to be the one whose papers get passed around the office. You want to be the one where the admissions counselors say, ‘Wow, look at this one!’”

SPOTLIGHT

ARTS TAKEOFF
SkillsUSA and TSA Competitions Bring the Arts to Life

Oscar Melendez felt out of place in high school. Then he discovered a talent for graphic arts, and his teacher suggested that he join Texas SkillsUSA.

“I always knew I didn’t really belong in sports or other clubs,” recalls Melendez, now a Printing and Imaging Technology instructor at Socorro High School in El Paso.

He was soon involved in SkillsUSA activities, however, improving his art skills, participating in community service, entering competitive events, and meeting people from across Texas and the United States.

SkillsUSA helps high school students improve their leadership, teamwork, and communication ability. Programs include local, state, and national competitive events in which students exhibit their occupational skills.

Janet Conner, executive director for Texas SkillsUSA, says events in audio video production, graphic design, printing and imaging technology, 3-D visualization and animation, and more allow students to showcase what they have learned throughout the year.

Competitive events at Texas Technology Students Association (TSA) conferences can help students with artistic talents learn how to master technology as a tool for artistic expression.

At local, state, and national conferences, students compete in events including video game design, desktop publishing, imaging technology, film, and scientific and technical visualization. Students can compete in technical research and report writing by creating reports based on their own research in an assigned technical field.
Everett Bradford started with bouncing balls and talking heads in his computer animation class at the Art Institute of Dallas. "In the beginning we'd go through a number of simple animation ideas," he says.

By the end of the course, he was adding music and sound to his computer animations. "It was so much fun. We would stay at school late," he recalls, "working on computer animation."

In 2006, Bradford's two years of hard work at the institute earned him an associate's degree in applied arts. He is now exploring opportunities in video game production and believes "real job experience" will sharpen the technical skills he acquired at the Art Institute.

Across Texas, students in Arts, A/V Technology, & Communications are finding that the opportunities for career preparation and development after high school are rich and varied. Two-year and four-year programs are available in printing, communications technology, fine arts, and other disciplines. Graduate programs help students take their art to a higher level or prepare them for careers as university professors.

Two-Year Degrees
Tonya Littmann, a freelance graphic designer, says she has made a good living with a two-year associate's degree in commercial art and advertising from Texas State Technical College (TSTC) in Waco. Working with clients such as the specialty jeweler Zale Corp. and seven local school districts, she stays busy with layout, production, and print jobs, as well as public information work.

"I'm really visual and creative, so it was a good fit," Littmann says of her decision to obtain an associate's degree. A community college such as TSTC can be easier on the budget and closer to home than a large university. The Waco campus offers associate's degrees in a wide variety of programs, including advertising design and print technology.

Four-Year Degrees
For Tom Judd, a professional photographer in Denton, a four-year degree provided a wider lens on the world. "Typically, when you reach the college level in photography, a lot of programs are geared around a fine arts or photojournalism approach," he says.

Judd, who completed his degree at Southern Illinois University, was drawn to classes in fine arts such as design, as well as business courses, which come in handy for a self-employed photographer. "If students have a good advisor, he or she will probably suggest they take business courses," Judd says.

Robert Milnes, dean of the School of Visual Arts at the University of North Texas, says two-year associate's degrees provide "nuts-and-bolts education," whereas four-year bachelor's degrees add the academic education component beyond your field of concentration.

"A bachelor's degree allows students
a lot of elective credits so they can move around in different disciplines,” Milnes explains. “It leaves a lot of room for study in foreign languages and related cultural subjects.” Most students who plan to work as designers and illustrators obtain a bachelor’s degree.

The University of North Texas offers 13 programs leading to bachelor’s, master’s, and doctoral degrees in art history, art education, design, and studio arts. With 2,400 students and 50 faculty members, the School of Visual Arts is one of the largest in the country.

Milnes says students also benefit from being so close to Dallas/Fort Worth. Design majors, for instance, can secure internships with museums, jewelers, and fashion companies.

Beyond Four Years

Those who earn a four-year degree at the University of North Texas often pursue further education, Milnes says. The school offers master of arts degrees in art education and art history. Art education is of interest to students who want to teach in elementary and secondary schools and community colleges. The art history degree appeals to students who prefer to work in museums.

Students who wish to advance their art can pursue a master of fine arts (MFA) degree. MFA programs give students the benefit of working closely with a group of fellow artists. “A really good master of fine arts program is exciting,” Milnes says. “It gives students a chance to discuss their work with a group of other artists and develop their talents faster than they would have on their own.”

To teach art at the university level, students need at least an MFA. Many professors have a Ph.D., or doctor of philosophy degree. This is an academic degree of the highest level, involving additional time and advanced study.

Texas Art Schools

Of course, Texas boasts many other postsecondary schools with excellent arts programs. For instance, the Fiske Guide to Colleges cites a number of Texas universities with “unusual strength” in categories such as architecture, art and design, communications and journalism, dance, drama, film and TV, and music. They include Rice University, Texas A&M University, Texas Christian University, and the University of Texas at Austin. The website www.artschools.com provides a general directory of Texas art schools and programs at the university level.

The military offers other opportunities for career education after high school, even in the arts. For instance, Judd points out, some branches of the armed services train and employ photographers. “That is one way a student could learn about certain kinds of photography,” he says.

Whether pursuing career development in the military, in a university, or on the job, arts professionals stress the importance of continued learning after high school. From his own experience, Judd says, “artists are always learning and finding out about the latest technology. If not, they’ll be left behind.”
SIX THINGS Texas students should know about getting into college

Applying to college is a lot like looking for a job or trying out for a team. You choose something that interests you, and then try your best to convince whoever is in charge that you have what it takes to be part of their organization. But whereas there might be only a few spots open on your high school’s varsity football squad, there are thousands of places available in hundreds of colleges each year. Whether you are the first in your family to apply to college or both of your parents have advanced degrees, going through the admissions process can be stressful. Fortunately, there are plenty of free resources available for Texas college-bound students. The best is College for Texans (www.collegeforalltexas.com), which features a list of all the state’s colleges and universities, a checklist for selecting a school, and a link to the online Texas Common Application. To help you get started on your own college search process, here are six steps you should take.

1. Make School Your Job
   The first thing college admissions officers look for on your application is your grade point average. It’s simple—you have to make the grades in high school to earn your spot in a college. The easiest way to do that is to think of school as your job, starting in your first year. If you show up late for work, slack off, and talk back to the manager, you’ll get fired faster than you can say, “Do you want fries with that?” But if you always arrive on time, work really hard, and try to learn from management, then pretty soon you’ll probably get a raise or a promotion.
   What works on the job works in the classroom, too. Take challenging courses. Turn in all your work on time. Pay attention in class. Contribute to discussions. Ask for help when you don’t understand something. By treating school as a career, you’ll have a better shot at earning the grades and teacher recommendations that you need to move to the next level.

2. Get Involved in Activities
   Colleges don’t accept students to fill seats. They look for students who will add to the entire college community by playing on sports teams, performing on stage, volunteering for service projects, and so on. Look at the clubs and teams available at your school and sign up for the ones that interest you. In addition to showing school spirit, being part of an organization is a great way to build teamwork and leadership skills—two traits that can really help your college application stand out from the pack.

3. Build a Resume Portfolio
   What if you had to take a final exam on the last three years of a subject and didn’t have any notes to study? Well, that’s exactly what it’s like trying to complete a college application if you haven’t kept an ongoing file of all your activities, honors, and employment.
   Start your first year and build a career portfolio (see page 15). It’s also smart to create a computer file called “college resume” and add to it each time you participate in a service project, win an award, get a new job, and so on. Use technology to create a resume format or ask your parents or guidance counselor for help. When you sit down to complete your college applications, review your career portfolio and call up the resume—all the information you need will be right at your fingertips.

4. Prep for Tests
   Most colleges use scores from the SAT, SAT II, or ACT tests in making their admissions decisions. Check which tests the schools you’re interested in require and sign up to take them in time to include the scores in your application. College for Texans (www.collegeforalltexas.com) also has a free ACT, SAT, and GRE prep course.
   Spend time preparing for the tests before you walk into the room with your No. 2 pencils and calculator. Go through sample SAT questions at www.collegeboard.org or ACT tests at www.actstudent.org. There are also dozens of test-prep books you can buy, some including software that tracks your progress as you go through sample exams.
   Remember: If you don’t do well on a test the first time, you usually can take it again and try to improve your score.

5. Make a List of Colleges
   Do you want to stay in Texas for college or see another part of the country? Would you be more comfortable at a big university or a small college?
   Think about what you would like to study and what matters most to you (like location, size, or religious affiliation), and then start developing a list of colleges that fit your criteria.
   Use online tools like www.collegeforalltexas.com or www.collegeboard.org to learn more about each school and take online campus tours. Buy or borrow from the library some of the many college guides available. If possible, schedule visits to the schools you are interested in, or, through the school’s admissions office, arrange an interview with a recent grad who lives in your area so you can ask questions about courses, faculty, or anything else.
   By the fall of your senior year, narrow the list down to the top five or six choices. While some online applications are free, it can cost up to $70 per school to apply, so be realistic about how much you can spend on applications.

6. Submit Polished Applications
   Once you send in an application to a college there’s no taking it back, so make sure you get it right the first time. Double-check your spelling. If you use the same essay for multiple schools, remember to change the name of the school to fit each application. Make sure you have any required standardized test results (ACT, SAT, SAT II) sent to each school.
   Be neat and complete, and meet every deadline. Make copies of each application before you hit the send button or pop it in the mail. If you don’t receive an email or postcard confirming that your application was received, contact the college to make sure it arrived. Items can get lost or misdirected, especially when thousands of students are sending in applications at the same time. By having copies, you can easily apply again.
EVEN IF you get accepted to college, you’ll never be able to pay the bill, right? Wrong! There’s financial aid available if you know where to look.

College isn’t cheap. With tuition and room and board at private schools often topping $40,000, and even in-state, public schools costing several thousand dollars a year, you may wonder why you should even apply.

Well, don’t worry. Every Texas student can afford to go to college.

“Access and affordability of higher education can be intimidating to students and parents; however, there are numerous resources available to walk you through the process and into an exciting future,” says Heather V. Crowson, vice president for enrollment management at Sam Houston State University.

The secret to getting the aid you need to go to school is in filling out the necessary forms, getting good grades, and applying to schools that offer generous financial aid packages. (A financial aid package consists of need- or merit-based scholarships and grants plus work-study jobs and low-interest student loans.)

Here’s a quick overview of steps you can take to get the financial aid you need to continue your studies after high school. For more information about the aid available at a specific college or university, go to the school’s website and click on the “Admissions and Financial Aid” link. Many schools provide an online form you and your parents can fill out that will give you the estimated financial aid package you might receive if accepted to that school.

Apply: You definitely won’t get any financial aid if you don’t apply. To figure out how much grant money (which you don’t pay back) and loans (which you do pay back) you’ll need to afford school, colleges use a formula that factors in your parents’ income and investments, your income, the number of kids in the family who will be in college at the same time, and other financial information. Families of all income levels may receive aid, so fill out the forms.

All schools require the Free Application for Federal Student Aid (FAFSA), which determines eligibility for federal aid, such as work-study, Pell grants, and the Stafford loan program; and for college grants and, sometimes, merit scholarships. Complete the application as soon as possible at the beginning of October your junior year. FAFSA forms and instruction booklets are available in your guidance counselor’s office, or you can complete the form online at www.fafsa.ed.gov.

Most private schools also require applicants to complete a school financial aid application and, in some cases, the CSS/Financial Aid Profile form (http://profileonline.collegeboard.org), which is used to award nonfederal student aid funds. Carefully read each college’s application to determine financial aid deadlines and what forms you will need to submit.

Study In-state: Whether you choose a public or a private school, staying in-state for college will cut your costs considerably. Plus, since Texas covers 267,339 square miles, you can “go away” to college without ever leaving the state.

To help ensure that qualified Texas high school graduates with financial need can go to college, the State Legislature established the TEXAS (Towards Excellence, Access, and Success) Grant Program. Grants can be used to study at any public college or university in the state and are equal to the student’s tuition and required fees. In 2005–2006, 61,086 students received TEXAS Grants. To apply, fill out the FAFSA.

Another way to score some serious state aid is to get good grades in high school. Texas students who are in the top 10 percent of their graduating class are eligible for automatic admission to any public university in the state. With that automatic admission comes the opportunity to apply for merit scholarships and special programs available at each school.

Take Two at a Community College: The first two years of many college programs are filled with core courses that could easily be taken at a local community college for a lot less money. If you fill out all the forms, do the math, and still can’t afford a four-year school, enroll in a community college for the first two years, then transfer to a four-year school.

By living at home, working part-time, and getting required courses out of the way, you could save tens of thousands of dollars in tuition and room and board, and be able to afford to attend the college of your choice for junior and senior years. For a complete list of the state’s community colleges, go to the Texas Association of Community Colleges website at www.tacc.org.

Target Your Search: Applying to a couple of colleges where your grades and talents put you near the top of the typical talent pool makes it more likely you’ll qualify for merit aid and other special school scholarships and grants. Do a little research on college websites to find schools where your standardized test scores and grade point average rank you in the top 25 percent or so of the most recently accepted first-year class. Colleges want to attract the best and brightest students available, and often will offer attractive scholarship/grant/loan packages to convince those students to come to their school.

There are also more than 1 million local, national, and college-specific scholarships available each year. The trick is to find and apply for scholarships that best fit your strengths and talents. FastWeb (www.fastweb.com) is a free college scholarship search source. Register online and you will start receiving email notices about scholarships, internships, and other opportunities that fit the profile information you submit.
LOOK IT UP! Here are key words and phrases used in this guide that you may not already know.

Articulation agreements: formal agreements between or among educational organizations (high schools, community colleges, and universities) that align courses and majors in a way that allows students to transition from one institution to another without loss of course credit or time.

Associate’s degree: a two-year degree awarded by a community or technical college.

Bachelor’s degree: a four-year degree awarded by a university.

Career and technical student organizations (CTSOs): curricular organizations for students that offer activities and competitions related to particular careers.

Career cluster: a way of organizing curricula, instruction, and assessment around specific occupational groups (for example, Information Technology or Health Science) that offers students core academics, coursework related to specific occupations, and extended learning experiences.

Career guidance: structured developmental experiences presented systematically from kindergarten through 12th grade that help students analyze and evaluate abilities, skills, and interests.

Career portfolio: a collection of student work indicating progress made in subjects, activities, or programs. In career cluster systems, portfolios are often used to assess student performance in extended learning experiences.

Doctoral degree: a degree awarded by universities for study beyond a master’s degree. Also referred to as a Ph.D. or professional degree.

Dual credit: credit given in both high school and college for college-level courses taken while in high school.

Extended learning experiences: participation in career and technical student organizations, extracurricular activities, job shadowing, internships, or service learning.

Financial aid: scholarships, grants, loans, and work-study funds awarded to students to pay for college expenses.

Internship: an extended learning experience in which students work temporarily at entry-level jobs in careers that interest them.

Job shadowing: an extended learning experience in which students observe professionals in particular careers as they go through a day on the job.

Master’s degree: a degree awarded by universities for study beyond a bachelor’s degree.

Postsecondary education: education beyond high school. Middle school and high school are referred to as secondary education, so postsecondary means after high school.

Program of study: a way of organizing the curricula and educational activities within a career cluster related to a student’s specific academic and career goal.

Service learning: an extended learning experience in which students do volunteer work related to their career goals.

Targeted industry clusters: six industry clusters that have been identified by Texas as high-demand, high-growth sectors paying high wages. As they are developed by the State, these may be hot areas in which to build a rewarding career.

Program of Study: an education plan suggesting the high school courses a student should take to prepare successfully for graduation and transition into postsecondary education. The vision for Texas CTE is that eighth graders, in consultation with their parents/guardians, counselors, and teachers, will select a program of study and create a plan. Plans are to be reviewed and revised at least once each school year.
Online Info

Explore these Internet resources for more about your education and career options.

America’s Career InfoNet
www.acinet.org/acinet
This is the place to search for occupational information, industry information, and state-specific labor market information.

Competency Model Clearinghouse
www.careeronestop.org/competencymodel/default.aspx
This career planning resource focuses on the skill sets and competencies essential for careers and industries.

College for Texans
www.collegeforalltexans.com
Here is everything a Texan needs to know about preparing for, applying for, and paying for college or technical school. And it’s all in one up-to-date, easy-to-navigate mega-site almost as big as the state itself. Remember: $4 billion is available every year to help Texans attend college.

College Tech Prep of Texas
www.texasgateway.org/node/94476
Tech Prep is a way to begin your course of study in high school and continue in a community or technical college. The result is a certificate or associate’s degree in a career field.

O*NET (Occupational Information Network)
http://online.onetcenter.org/
Also available in schools and libraries, O*NET provides full information on occupations, including compensation, employment prospects, and skill matching for students. Information on compensation is available on a state-by-state basis.

U.S. Department of Labor Occupational Outlook Handbook
www.bls.gov/home.htm
This nationally recognized resource offers information on job responsibilities, earnings, working conditions, and job prospects for the future.

Take a Reality Check

The Texas Workforce Commission has created an online resource called Reality Check to help you understand how much money you’ll need to live on your own after high school or college and how you can earn it. There are three ways to explore careers, expenses, and earnings. For the first option, which is called “Get a Reality Check,” you choose an area you’d like to live in, such as Austin. You then go through a series of screens with real-world costs for items such as housing, clothing, transportation, health care, and personal expenses. The site automatically adds up your estimated monthly expenses, then uses salary information for Texas to show you careers that will make you that much money. The second option, called “Future Salary,” starts with the wages you expect to earn, what education you plan to pursue, and the career cluster that interests you. Then it generates a list of careers in which you can make that amount of money. The third option, “Occupation Direct,” begins with your occupational choice and the area where you want to live, then shows how your estimated expenses subtract from the salary for your chosen job. The site, which is at www.careerwise.mnscu.edu/careers/realitycheck.html, is a great way to play “what if” when it comes to mixing your job, earnings, and expense options.

The results of Reality Check show you how expenses add up quickly when you are living on your own.

Texas Career Check
The State of Texas has created a special website for students and others researching careers. It’s called Texas Career Check. Texas Career Check lets you explore higher education options by looking at detailed information by school and program of study, AND you can explore careers, occupational information, and postsecondary education options. You’ll find a wealth of information about hundreds of career choices. To explore Texas Career Check, go to www.texascareercheck.com.
Texas CTE Career Clusters

Agriculture, Food & Natural Resources
- Processing, production, distribution, and development of agricultural commodities and natural resources
- Organizing, directing, and evaluating functions essential to productive business operations
- Executing governmental functions at the local, state, and federal levels

Architecture & Construction
- Designing, managing, building, and maintaining the built environment
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research

Arts, A/V Technology & Communications
- Creating, exhibiting, performing, and publishing multimedia content
- Financial and investment planning, banking, insurance, and business financial management
- Managing restaurants and other food services, lodging, attractions, recreation events, and travel-related services

Business Management & Administration
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research
- Providing legal, public safety, protective, and homeland security services

Education & Training
- Performing marketing activities to reach organizational objectives
- Performing scientific research and professional and technical services

Finance
- Designing, supporting, and managing hardware, software, multimedia, and systems integration
- Providing legal, public safety, protective, and homeland security services
- Performing scientific research and professional and technical services

Government & Public Administration
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research
- Providing legal, public safety, protective, and homeland security services

Health Science
- Performing marketing activities to reach organizational objectives
- Performing scientific research and professional and technical services
- Performing scientific research and professional and technical services

Hospitality & Tourism
- Performing marketing activities to reach organizational objectives
- Performing scientific research and professional and technical services
- Performing scientific research and professional and technical services

Human Services
- Processing materials into intermediate or final products
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research

Information Technology
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research
- Providing legal, public safety, protective, and homeland security services

Manufacturing
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research
- Providing legal, public safety, protective, and homeland security services

Marketing
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research
- Providing legal, public safety, protective, and homeland security services

Music, Media, Performing Arts, & Entertainment
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research
- Providing legal, public safety, protective, and homeland security services

Science, Technology, Engineering & Mathematics
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research
- Providing legal, public safety, protective, and homeland security services

Transportation, Distribution & Logistics
- Providing education and training services, and related learning support services
- Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research
- Providing legal, public safety, protective, and homeland security services

About Texas CTE You may have seen the name Texas CTE on the cover of this magazine. What exactly is that?

Texas CTE is the name of Texas’ college and career education initiative. The idea behind it is simple: Planning for the future so that students achieve lifelong success. As Texas CTE grows, you’ll see how subjects such as English, math, science, and social studies are relevant to your personal goals and ambitions. You’ll get the chance to begin a plan that gets you where you want to go in life. You’ll have the opportunity to take courses and engage in extended learning experiences that give you marketable skills. Best of all, you’ll be in control of your future. Read all 16 editions of Texas CTE in Action (available through your counselor) to explore Texas’ career clusters and start on the road to success.