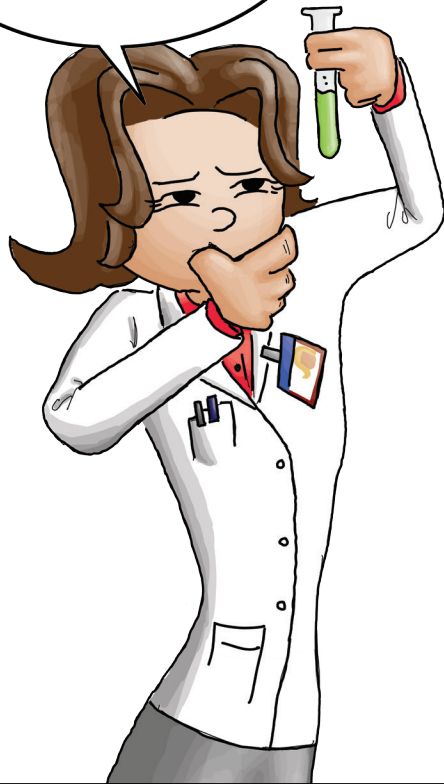


SCIENCE, TECHNOLOGY, ENGINEERING & MATH

EXPLORE YOUR FUTURE WITH THE FOUNDATION HIGH SCHOOL PROGRAM

Published by the Texas Workforce Commission
101 E. 15th St., Rm 0252, Austin TX 78778-0001
October 2016

**CAN YOU
IMAGINE
YOUR FACE
HERE?**



Figuring out what you want to do when you grow up is a challenge, but boy is it worth it! With the Foundation High School Program's endorsement options, you have the opportunity to explore classes and fields of study that interest you today so you can find your dream job tomorrow. In many of these courses, you will even get to experience what it's like to work in the jobs that interest you.

Remember: you have options, probably more than you have ever considered. Maybe you're interested in the medical field, but not sure if you want to be a medical doctor. You could also consider being a Registered Nurse, Medical Lab Technologist, or Nutritionist. Did you know some medical field jobs only require a two-year college degree and certification? Yep, like Cardiovascular Technologist, Veterinary Technician, Diagnostic Medical Sonographer, and Physical Therapy Assistants, just to name a few.

So go exploring! Research your endorsement and career interest options before deciding which paths to pursue. The decisions you make about your education today will affect how well you enjoy your job in the future, how much money you earn, your future lifestyle, and so much more. So think it through, plan your future, and have fun!

CHEMICAL TECHNICIAN

Jobs projected in Texas by 2024:
7,500

You will need:
an Associate degree

Typical starting pay is:
\$29,097 a year

Typical average pay is:
\$50,437 a year

Turnover: Low

WHAT IS THE FOUNDATION HIGH SCHOOL PROGRAM?

The **Foundation High School Program** is a detailed plan of 22 credits that you and all your classmates will have to earn in order to graduate from high school. See page 4 for details.

An **endorsement** is an option you can add to your high school diploma to show your knowledge and/or skills gained in one of five broad subject matter areas: STEM, Arts and Humanities, Business and Industry, Public Services, and Multidisciplinary Studies. To get an endorsement, you must complete a logical sequence of specific courses approved by your district.

If you have questions about which endorsement would be best for you, talk to your school Counselor!



HOW ABOUT HERE?



ARCHITECT
Jobs projected in Texas by 2024: 11,430
You will need:
 a Bachelor's degree
Typical starting pay is:
 \$46,516 a year
Typical average pay is:
 \$81,783 a year
Turnover: Low

APP DEVELOPER
Jobs projected in Texas by 2024: 63,120
You will need:
 a Bachelor's degree
Typical starting pay is:
 \$64,862 a year
Typical average pay is:
 \$99,827 a year
Turnover: Very Low

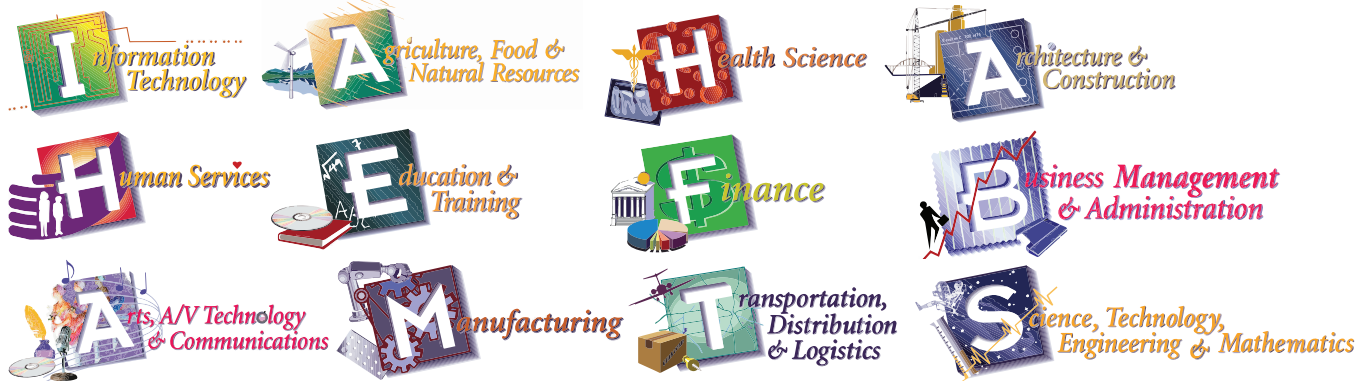


So ... you think you might want to select the Science, Technology, Engineering and Math Foundation High School Program endorsement option? Awesome! Browse through some of the data for job titles found under the STEM endorsement in this booklet to help you decide if this is the right educational and career path for you. For more information on jobs in this career field, you can:

1. Call our **24-hour Hotline at 1-800-822-PLAN (7526)**
2. Go to Texas Career Check and click "Explore Careers" at **www.texascareercheck.com**
3. Visit the LMCI website to see what available products may best serve your needs: **www.texasworkforce.org/labormarket**

We hope that by learning all you can about potential careers in the fields that interest you, you will be empowered to find a career that you love, and that also pays for you to live the way you want once you are living on your own. So enjoy this booklet, explore some options, and don't hesitate to talk to your parents, family, friends, teachers, counselors, and us at the Texas Workforce Commission if you have questions about your career goals.

STEM occupations can be found in all of the following Achieve Texas career clusters.



Sample STEM Occupations by Emphasis

Below are sample occupations under the STEM endorsement. Not all STEM-related occupations are included here (there are hundreds), and some of those listed below may fall under other endorsements as well. Talk to your school Counselor for more information.

Science		
Astronomers	Biochemists/ Biophysicists	BioMedical Researcher
Cellular Biologists	Chemists	Environmental Scientists
Food Scientists	Forensic Scientists	Foresters
Geneticists	Hydrologists	Meteorologists
Technology		
App Developers	Computer Engineers	Computer Hardware Engineer
Computer Network Architects	Computer Network Specialists	Computer Programmers
Computer Research Scientists	Computer Systems Analyst	Database Administrators
Graphic Designers	Information Security Analyst	Multi-Media Animators
Engineering		
Aerospace Engineers	Automotive Engineers	Chemical Engineers
Civil Engineers	Drafters	Electrical Engineers
Industrial Engineers	Marine Architects	Mechanical Engineers
Mining Engineers	Nuclear Engineers	Petroleum Engineers
Mathematics		
Accountant	Actuaries	Auditors
Biostatisticians	Budget Analysts	Cartographers
Credit Analysts	Economists	Financial Managers
Loan Officers	Mathematical Technicians	Mathematicians
Health Science		
Anesthesiologists	Chiropractors	Dental Hygienists
Family Practitioner	Health Service Manager	Medical Lab Technician
Medical Records Technician	Medical Sonographers	Nutritionists
Optometrists	Pharmacists	Physical Therapists

Keep in Mind

The career titles listed above are just a fraction of the possible occupation opportunities available within this endorsement area, so be sure to visit TWC's AutoCoder website to find other job titles that may interest you: <http://autocoder.lmci.state.tx.us>.

- Just enter a job title or a description in the appropriate search box, and you will get a list of the most common title matches.
- Click on the title that best matches the job that interests you, and a catalog of other, closely-related (or interchangeable) job titles will appear.

Your Foundation High School Program Graduation Requirements

This table shows what every Texas student needs to graduate. Every student must earn the 22 credits under the “Foundation-Only” column. Your parents or guardians will need to give the school district written permission to allow you not to earn an endorsement. Otherwise you must pick an endorsement and earn 26 credits to graduate. Remember that your school district has the authority to establish requirements in addition to those listed here. Check with your school Counselor for more information.

Subjects and courses required for Foundation-Only Credits	Foundation-Only Credits	Foundation + Endorsement Credits	Distinguished Level Credits
English <ul style="list-style-type: none"> • English I, II, and III • Advanced English course 	4	4	4
Mathematics <ul style="list-style-type: none"> • Algebra I • Geometry • Advanced Math course 	3	4 - All Foundation requirements, plus additional advanced Math course	4 - All Foundation requirements, plus Algebra II specifically
Science <ul style="list-style-type: none"> • Biology • Integrated Physics and Chemistry • Advanced Science course 	3	4 - All Foundation requirements, plus additional advanced Science course	4 - All Foundation requirements, plus additional advanced Science course
Social Studies <ul style="list-style-type: none"> • U.S. History • U.S. Government (1/2 credit) • Economics (1/2 credit) • World History or Geography 	3	3	3
Physical Education	1	1	1
Languages other than English <ul style="list-style-type: none"> • Two credits in the same language • OR two credits from Computer Science I, II, and III 	2	2	2
Fine Arts	1	1	1
Electives <ul style="list-style-type: none"> • Classes available for electives will be based upon the endorsement options selected by the student. 	5	7	7
Speech <ul style="list-style-type: none"> • Demonstrated proficiency 	0	0	0
Total Credits	22	26	26

Students can earn one or more Performance Acknowledgments, in addition to any graduation program they follow, for any of the following areas: Dual Credit course; Advanced Placement or International Baccalaureate exam performance; Bilingualism and biliteracy; Earning a nationally or internationally recognized business or industry certification or license; PSAT, ACT-PLAN, SAT, or ACT score. Talk to your school Counselor for specific guidelines.

Your STEM Endorsement Options

Students interested in earning the STEM endorsement have several options. Once you've met your Foundation graduation requirements, you will need to successfully complete additional advanced courses in math and science (one each), plus electives, and choose **one** of the five options below to earn your remaining STEM endorsement credits.

1. Complete consecutive levels [For example: **Principles of Engineering** followed by **Introduction to Engineering Design** or **Medical Terminology** followed by **Pharmacology**] of four or more Career Technical Education (CTE) courses with the first two being from the same career cluster.
 - a. The third CTE credit must be from an advanced course
 - b. The fourth CTE credit must come from a class in the **STEM** career cluster
2. Complete four credits from the following **Computer Science** course options:
 - a. **Fundamentals of Computer Science**
 - b. **Computer Science I, II, and III**
 - c. **AP Computer Science**
 - d. **IB Computer Science, Standard Level**
 - e. **IB Computer Science, Higher Level**
 - f. **Discrete Mathematics for Computer Science**
 - g. **Digital Forensics**
 - h. **Game Programming and Design**
 - i. **Mobile Application Development**
 - j. **Robotics Programming and Design**
 - k. **Independent Studies of Technology Applications**
3. Complete a total of five mathematics credits by completing:
 - a. **Algebra I**
 - b. **Geometry**
 - c. **Algebra II**
 - d. Any two additional courses in which **Algebra II** is a prerequisite
4. Complete a total of five science credits by completing:
 - a. **Biology**
 - b. **Chemistry**
 - c. **Physics**
 - d. Any two additional science courses
5. Successfully complete **Algebra II, Chemistry, Physics**, and:
 - a. Three additional credits from no more than two of the areas listed in options 1 - 4.



**WHAT
ABOUT
HERE?!?**

DENTAL HYGIENIST

Jobs projected in Texas by 2024:
15,960

You will need: an Associate degree

Typical starting pay is: \$60,537 a year

Typical average pay is: \$72,313 a year

Turnover: Low

VETERINARIAN

Jobs projected in Texas by 2024: 5,710

You will need:

a degree from an accredited college of veterinary medicine, AND a state license

Typical starting pay is:

\$60,308 a year

Typical average pay is:

\$99,879 a year

Turnover: Average

LAB TECHNICIAN

Jobs projected in Texas by 2024:

15,200

You will need:

an Associate degree

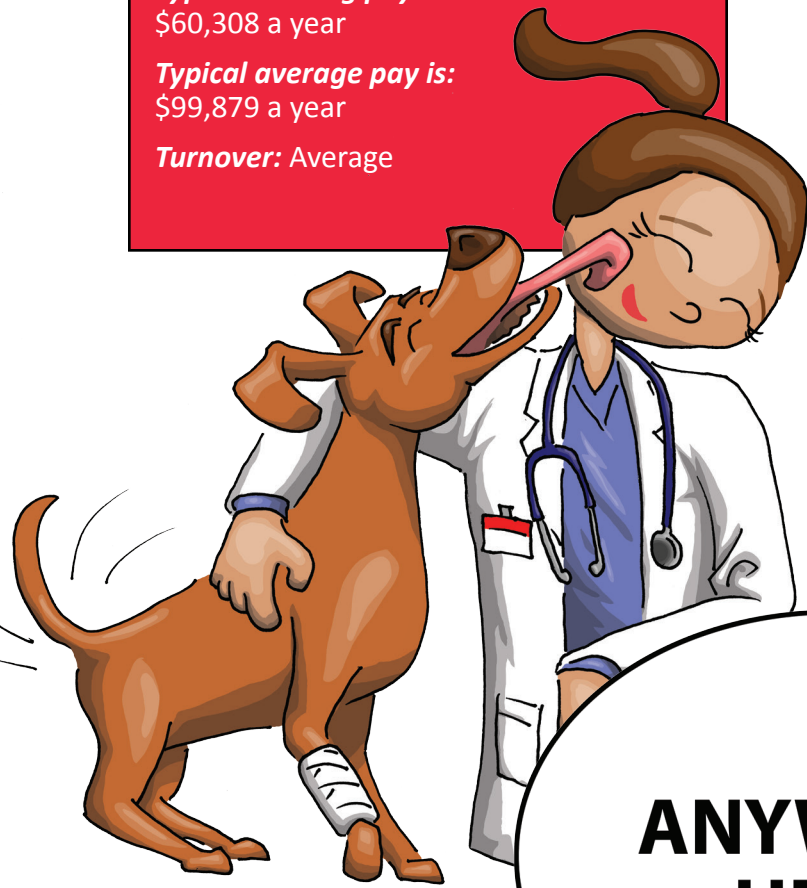
Typical starting pay is:

\$26,767 a year

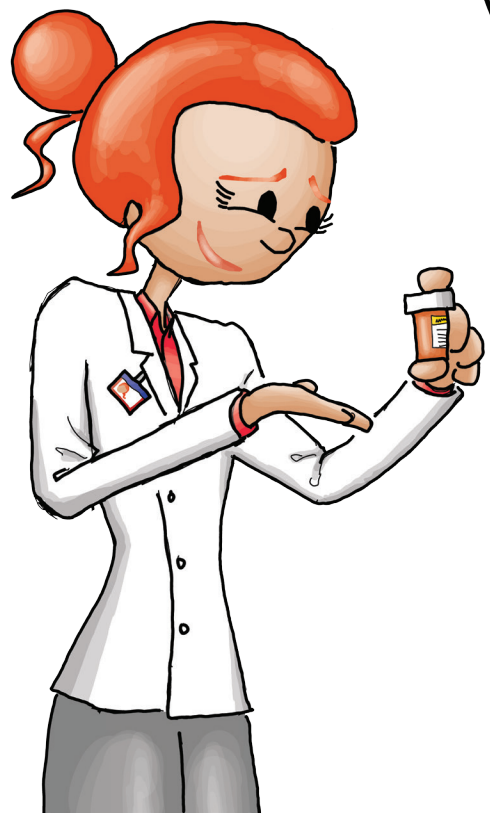
Typical average pay is:

\$38,973 a year

Turnover: Low



**ANYWHERE
HERE?**



PHARMACIST

Jobs projected in Texas by 2024:

24,610

You will need:

a Doctoral or professional degree

Typical starting pay is:

\$96,452 a year

Typical average pay is:

\$120,480 a year

Turnover: Low

The Real Deal

Using Labor Market Statistics to Filter through Career Options

It is important to think about how much money you'll earn in any given occupation. But you should consider many other labor market statistics to help you make informed choices.

Check out the information and numbers below for a few jobs in the Science, Technology, Engineering and Math fields to see other important statistics you can discover on the Texas Career Check website. Use this information to help you determine what's important to you in a career.

Computer-Controlled Machine Tool Operator

You will: operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.

- Manufacturing industries employ almost all of these workers.
- Workers learn in apprenticeship programs, informally on the job, and in secondary, vocation, or postsecondary schools.
- Expect stiff competition for these jobs.

Projected Texas employment for 2024	15,190
Education needed	High School diploma, on-the-job training
2015 Average Annual Wage	\$39,065
Turnover	Very Low

Registered Nurse

You will: Assess patient health problems and needs, plan and administer nursing care to ill, injured, convalescent, or disabled patients, and more.

Licensing or registration required.

- The largest healthcare occupation, with 2.7 million jobs nationwide.
- About 60 percent of jobs are in hospitals.
- Depending on specialization, may require as little as an Associate degree or as advanced as a Master's.
- Excellent opportunities, may vary by employment and geographic location.

Projected Texas employment for 2024	258,880
Education needed	Bachelor's Degree
2015 Average Annual Wage	\$69,891
Turnover	Very Low

Civil Engineer

You will: Plan, design and oversee construction and maintenance of structures and facilities like roads, railroads, airports, bridges and more.

- Bachelor's degree is sufficient for most starting positions, but some research positions may require a graduate degree.
- Starting salaries are among the highest of all college graduates.
- Continuing education is needed for engineers to keep up with technological advancements.

Projected Texas employment for 2024	31,340
Education needed	Bachelor's Degree
2015 Average Annual Wage	\$97,903
Turnover	Low

**WANT INFORMATION ON
MORE JOBS?**

Check out
www.TexasCareerCheck.com
to learn about hundreds
more STEM careers!

EXPLORE YOUR FUTURE!

ENVIRONMENTAL SCIENTIST

Jobs projected in Texas by 2024: 6,370

You will need:
preferably a Master's degree, Bachelor's
degree minimum

Typical starting pay is: \$45,659 a year

Typical average pay is: \$84,553 a year

Turnover: Low



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**CAN YOU
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Equal Opportunity Employer/Program. Auxiliary aids and services are available upon request to individuals with disabilities.
Relay Texas: 800-735-2989 (TTY) and 711 (Voice).