

ALABAMA SUCCESS EDUCATION & CAREER PLANNER

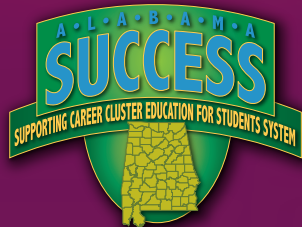
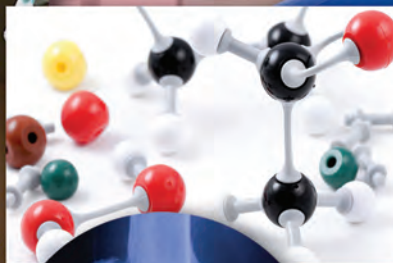
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Save Lives for a Living

Your guide to careers in **HEALTH SCIENCE**

Great Career Ideas • Creating Your Plan • College Resources



A message from . . .



Robert Bentley,
Governor of Alabama

The investments we make in our students today will help shape their futures for years to come. Our students are destined to become high-performing professionals in all sectors of the workforce.

Alabama SUCCESS is an initiative designed to help students access valuable information about current careers, postsecondary learning, and financial literacy resources.

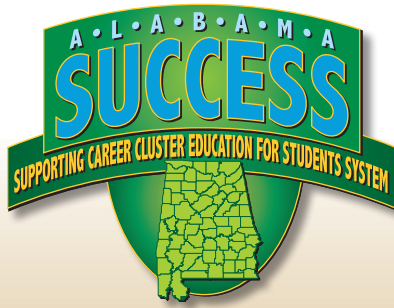
Our goal is to give students the opportunities they need to prepare themselves for success. We want our students to be well-equipped for top careers in Alabama's workforce - which has a growing influence on the global marketplace.

This Alabama SUCCESS guide is a great resource to assist in preparing for a bright and successful future.



Dr. Thomas R. Bice,
Alabama State
Superintendent of
Education

Alabama SUCCESS is an invaluable resource designed specifically for students. By learning about actual career fields and the education and experience required for specific jobs, you will be better able to figure out what you want to do after high school and what you need to do to achieve your goals.



ATTENTION, PARENTS

This guide is part of a series created to help students in Alabama learn more about careers, salaries, and the steps they need to take to reach their goals. By connecting what they learn in the classroom to real jobs that interest them, Alabama students will graduate better prepared for life and work. You can help your child use this guide by:

- ◆ Talking to your child about what careers interest him or her—and why
- ◆ Sharing your work experiences—pro and con—with your child
- ◆ Asking people in your community who work in jobs that interest your child to talk about their careers or to let your child visit their workplace.





What Employers Want



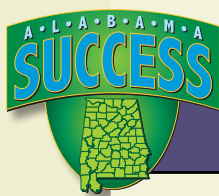
**Dr. Neil Lamb,
Director of Educational Outreach
HudsonAlpha Institute for Biotechnology, Huntsville**

“**S**tudents entering careers in Health Science need a strong foundation in math and science, beginning in middle school. Higher-level classes in these areas are critical for an understanding of the key concepts in Health Science. Computer, communication, and business courses also are valuable. Students need to pursue as many hands-on science opportunities as possible, including laboratory activities in school, science fairs, and volunteer or paid internship work experience in a Health Science field.

Although a high school education provides fundamental knowledge, most careers in Health Science require education and training beyond this level. Training programs in Health Science careers are available across Alabama, at both two- and four-year colleges and universities, leading to either certificates and degrees.”

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CLUSTER

HEALTH SCIENCE

PATHWAY

- ▶ Therapeutic Services
- ▶ Diagnostic Services
- ▶ Health Informatics
- ▶ Supportive Services
- ▶ Biotechnology Research and Development

SAMPLE OCCUPATION

- ▶ Athletic Trainer
- ▶ Nuclear Medicine Technologist
- ▶ Medical Transcriptionist
- ▶ Substance Abuse Counselor
- ▶ Biomedical Engineer

Health Science

There's a huge demand in Alabama and across the United States for health professionals and health care-related services. The career possibilities include creating new medicines, discovering cures for diseases, healing and comforting the sick, and using high-tech tools to diagnose and treat illnesses and injuries.

CLUSTER PROFILE



YOU DECIDE

Does the Health Science career cluster fit you, your talents, and your dreams? Take this quick quiz to find out.

1

Do you enjoy helping others?

WHY IT MATTERS:

There are plenty of interesting jobs available for caring, patient, and helpful people in nursing, athletic training, rehabilitation, and other health-related fields.

2

Is science one of your favorite subjects?

WHY IT MATTERS:

To succeed in any health-related career, you need to understand and enjoy science.

3

Do you like working on projects as part of a team?

WHY IT MATTERS:

Jobs such as finding solutions to complex health problems, caring for patients, and managing health-care facilities all require teamwork.

4

Do you enjoy doing hands-on experiments in a lab?

WHY IT MATTERS:

Training for all health-related careers includes lots of lab work, so you need to be able to follow directions carefully and take accurate measurements.

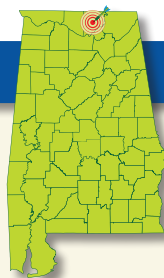
5

Are you interested in how the human body works?

WHY IT MATTERS:

Everything in Health Science is related to the human body in some way.

If you answered "yes" to most of these questions, Health Science could be right for you.



YOUNG PROFESSIONAL PROFILE

NAME: Kelly East

EDUCATION: Westminster Christian Academy, Huntsville; Auburn University, Auburn—Microbiology, Bachelor of Microbiology Degree; University of North Carolina, Greensboro, North Carolina—Genetic Counseling, Master of Genetic Counseling Degree

I had a wonderful high school biology teacher who sparked my interest in science, particularly in genetics. High school also gave me the experience that I needed to prepare for college-level studying and time management.

At Auburn, I learned about genetic counseling and realized that it was the perfect fit for me. Genetic counseling will allow me to blend my interests in genetics, health, and education as I work with patients and the public to help them understand how genetics impacts their lives.

I hope to use my degree and skills as a genetic counselor to work either in a traditional clinic setting or in research or education. I am an Alabama native, so it is very important to me to come back and live and work in my hometown near family and friends."

LEARN MORE

Explore Health Science education and career options in Alabama at the Alabama Health Careers website.



MAKE A PLAN

Sit down with your parents and counselor and create a plan.

Map out an Alabama Education Plan (sample at right) based on your interests, strengths, and possible career goals.

Your plan outlines the courses and electives you'll take in high school, plus related clubs and career preparation. Your counselor will work with you to determine the learning experiences needed for you to complete your plan, such as using distance learning or earning college credit from your local community college.

Here's a sample Alabama Education Plan for you to use as a guide.

SAMPLE* Alabama Education Plan						
Name: Jordan Smith School: Central High School Diploma Option: Advanced Career and Technical Endorsement Cluster: Health Science Pathway: Therapeutic Services Career Goal: Nursing Postsecondary Goal: Bachelor of Science, Nursing						
	Math	English	Science	Social Studies	Other Optional Courses	Sampling of Career and Technical Education Courses in Pathway
9th Grade	Algebra I	English 9	Physical Science	World History 1500–Present	<ul style="list-style-type: none"> Health—1/2 Fine Arts—1/2 Computer Applications Physical Education—1 Foreign Language I** Foreign Language II** 	<ul style="list-style-type: none"> Foundations of Health Science Emergency Services Health Promotion and Wellness Introduction to Pharmacy Health Science Internship Dental Assisting Therapeutic Services Human Body Structures and Functions Safety and Health*** Dental Assisting*** Health Informatics Support Services Regulations Sports Medicine Advanced Health Seminar Diagnostic Services Introduction to Biotechnology Advanced Health Seminar
10th Grade	Geometry	English 10	Biology	United States History to 1877		
11th Grade	Algebra II with Trigonometry	English 11	Chemistry	United States History to Present		
12th Grade	Pre-Calculus or Calculus	English 12	Physics	Government and Economics		
Community College	General Education Requirements <ul style="list-style-type: none"> Biology Chemistry Physics Mathematics English Psychology Statistics 			Required and CTE Courses <ul style="list-style-type: none"> Anatomy Physiology Child Safety and Health*** Fundamentals of Nursing Introduction to Pharmacology Health Assessment 		<ul style="list-style-type: none"> Adult Health Sociology Anthropology Maternal and Child Nursing Adult/Child Nursing Psychosocial Nursing
Higher Education				<ul style="list-style-type: none"> Role Transition Intro to Human Nutrition Computer Science Medical Ethics Professional Nursing Practice 		
Education and Career Assessments: 8th Grade: Interest inventory and education plan initiated for all learners 11th Grade: College placement assessment Career Learning Experiences: Career preparation—paid and unpaid, internships, job shadowing						
Co-Curricular Experiences: Health Occupations Students of American (HOSA) Extracurricular Experiences: National Youth Leadership Forum on Medicine; Special Olympics Service Learning Experiences: Service project in which students demonstrate first-aid techniques to clients of children's charities						



ARTICULATION AGREEMENT

is a fancy term for a simple education agreement that can streamline your road to a successful career.

Statewide articulation agreements link all high schools and two-year colleges in Alabama. They provide credit at two-year colleges for coursework mastered at the high school level.

*This is a sample plan and should not be considered a definitive plan for any student interested in this career cluster.
 Alabama First Choice diploma requires 2 years of the same foreign language. *Statewide articulated course

Articulation agreements can take you down your career pathway as well. In many cases, students transferring from two-year to four-year colleges and universities can complete four-year general studies core course requirements before they transfer.



Get Career Credentials

If you're a student in a career and technical education (CTE) program, you may have the option of earning a Career Readiness Certificate along with your high school diploma. The nationally recognized certificate shows you're proficient in applied math, reading for information, and locating information—skills employers highly value. Ask your school counselor about the statewide program; if it's not in your high school now, it will be implemented soon.



CAREER IDEAS

Need-to-know facts and figures about real Alabama jobs, salaries, and education options available in the Health Science cluster.

The 12 careers highlighted on the next page are a sampling of occupations in the **Health Science** cluster in Alabama. The charts include occupation name, description, plus wages for workers just starting out in the profession, average wages for those in the occupation, and the wages earned by experienced workers in the job (see “How to Read Job Charts”). The bar below the occupation’s name contains the Standard Occupational Code (SOC); use the SOC to look up more information about the career in online databases such as O*NET (see below). The bars are also color-coded to indicate the minimum level of education required for each profession.

For further information on occupations in all career clusters, go to the O*NET database



How to Read Job Charts

- Starting Hourly Wage
- Average Hourly Wage
- Experienced Hourly Wage
- Occupation Name
- SOC Number
- Minimum Education Level (indicated by color bar)
- Occupation Description

EDUCATION LEVELS

- On-the-Job Training
- Work Experience in a Related Occupation
- Postsecondary Vocational Training
- Associate's Degree
- Bachelor's Degree
- Master's Degree
- Doctoral Degree

Source: Alabama Department of Industrial Relations, Labor Market Information Division.

Check Out These Three COOL CAREERS

Respiratory Therapist

WHAT: Under the direction of a doctor, respiratory therapists treat patients with breathing and cardiopulmonary disorders, including both long-term and emergency care. In addition to treatment, they also test and evaluate patients to chart each patient's progress.

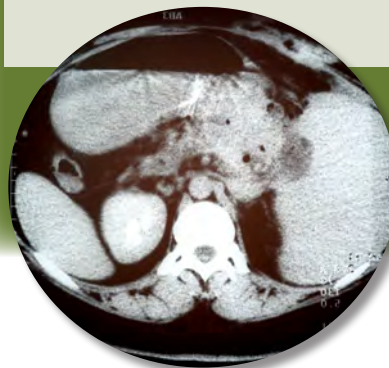
WHO: Respiratory therapists treat a variety of patients, from infants to the elderly. Therefore, anyone interested in this job must be comfortable working with any age group.



Diagnostic Medical Sonographer

WHAT: Produce ultrasonic recordings of internal organs for use by physicians. Decide which images to offer physicians, looking for differences between healthy and problem areas.

WHO: Diagnostic medical sonographers have strong investigative, decision-making, and communication skills. They work directly with patients and physicians, and operate and maintain high-tech equipment.



Health-care Interpreter

WHAT: Help patients with limited English language and reading skills understand spoken and written health information, and talk to their physicians, nurses, lab technicians, and other health-care providers.

WHO: Health-care interpreters are fluent in both English and a second language, are trained, qualified interpreters, and are familiar with medical terminology. They also may provide cultural information to health-care providers, which can help in a patient's care.





\$7.78
\$9.86
\$13.36

Nursing Aide, Orderly, and Attendant

SOC: 31-1012

Provide basic patient care under direction of nursing staff.



\$15.43
\$20.83
\$26.88

Dental Hygienist

SOC: 29-2021

Clean teeth and examine mouth for signs of disease.



\$48.83
\$80.00+
\$80.00+

Internist (General)

SOC: 29-1063

Diagnose and provide nonsurgical treatment of diseases and injuries of internal organ systems.



\$19.41
\$26.44
\$36.90

Registered Nurse

SOC: 29-1111

Address health needs of healthy and of ill or injured people.



\$61.35
\$80.00+
\$80.00+

Physician and Surgeon

SOC: 29-1069

Treat diseases, injuries, and deformities by methods such as manual manipulation, or instruments and appliances.



\$9.70
\$14.86
\$22.71

Dental Laboratory Technician

SOC: 51-9081

Construct and repair full or partial dentures or dental appliances.



\$10.43
\$14.77
\$21.58

Medical and Clinical Laboratory Technologist

SOC: 29-2011

Perform complex medical laboratory tests to diagnose, treat, and prevent disease.



\$12.05
\$16.31
\$21.26

Licensed Practical and Licensed Vocational Nurse

SOC: 29-2061

Care for ill, injured, convalescent, or disabled people in a variety of institutional settings.



\$20.88
\$28.09
\$36.32

Nuclear Medicine Technologist

SOC: 29-2033

Operate cameras that map radioactive drugs in a patient's body to create diagnostic images.



\$8.18
\$11.41
\$16.41

Pharmacy Technician

SOC: 29-2052

Prepare medications under the direction of a pharmacist.



\$37.05
\$80.00+
\$80.00+

Dentist (General)

SOC: 29-1021

Diagnose and treat diseases, injuries, and malformations of teeth and gums.



\$7.52
\$8.80
\$12.34

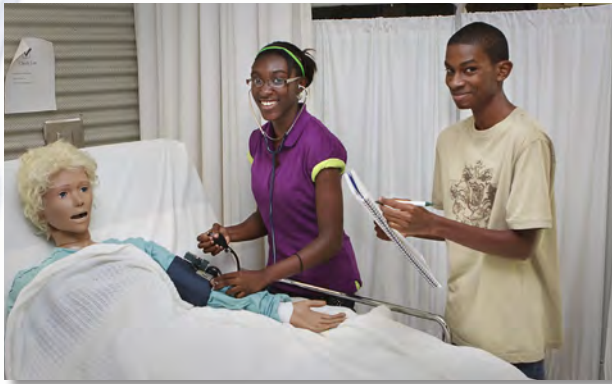
Home Health Aide

SOC: 31-1011

Provide routine personal health care to elderly, convalescent, or disabled persons in their home or in a residential care facility.

Think Again

Now is the time to take a fresh look at careers you may not have considered before.



MYTH: Only women are nurses.

FACT: Nursing offers rewarding job opportunities for both men and women. The American Hospital Association estimates that 75 percent of all medical vacancies are for nurses. This high demand helps nurses enjoy top pay, flexible scheduling, and extra benefits. Registered nurses interested in a military career can qualify for an appointment as an officer in the Nurse Corps, and Army soldiers who want to become nurses may be eligible to attend college full-time to earn a Bachelor of Science degree in Nursing (BSN).

Reality Check

What It Costs to Live on Your Own in Alabama

Estimated 2009–2010 monthly expenses for a 22-year-old living in Birmingham.

Note: Keep in mind that your paycheck will be reduced by about 30 percent to cover taxes, retirement, and insurance. What's left is known as your "take-home pay." Subtract 30 percent from the salaries shown on page 5 to get a more accurate take-home amount.

Cable and Internet:
\$90

Cell phone:
\$70

Rent and utilities:
\$700–\$800

(1-bedroom)

Groceries:
\$200–\$250

Gasoline:
\$124

(1,000 miles @ \$3.10 per gallon 25 MPG)

Car insurance:
\$30–\$95

(6-month policy)

Monthly total:
\$1,310–\$1,654

Yearly total:
\$15,742–\$19,851

Car payment:
\$350–\$450

(Used 2010/2011 4-door)

Take It to the Next Level

Check It OUT

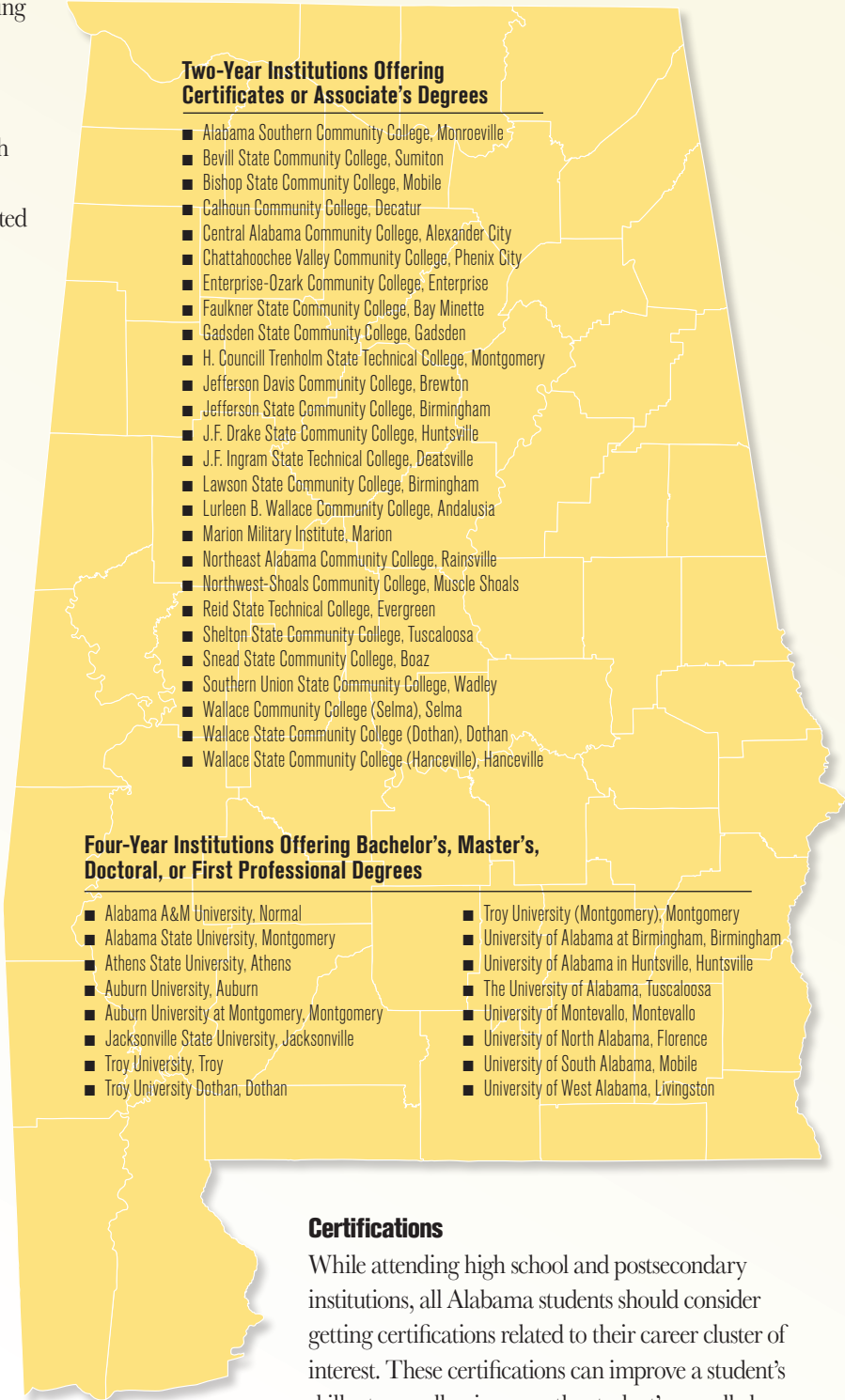
Most Alabama schools offer this student organization related to the **Health Science** career cluster:



Health Occupation Students of America (HOSA)

HOSA's mission is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill, and leadership development among all Health Science technology students.

In Alabama, the learning doesn't stop with high school graduation. Here is a list of public postsecondary (after high school) institutions that may offer programs related to this cluster.



Certifications

While attending high school and postsecondary institutions, all Alabama students should consider getting certifications related to their career cluster of interest. These certifications can improve a student's skill set, as well as increase the student's overall chance of gaining employment in the field.





GETTING READY

GRADE 9 FRESHMAN YEAR

- ◆ Research your career options based on your interests, talents, and goals.
- ◆ Choose a career cluster.
- ◆ Create an Alabama Education Plan (see page 3).
- ◆ Do your best work in all your classes. Course selection and grades really do count when you are applying to colleges and training programs.
- ◆ Keep a folder or portfolio of your activities, awards, accomplishments, and work experience, and add to it during your high school career.

GRADE 10 SOPHOMORE YEAR

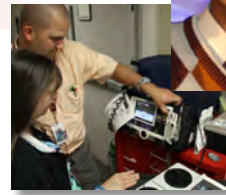
- ◆ Continue building the strongest possible academic record.
- ◆ Consider taking the PLAN (pre-ACT) if you plan to apply to a two-year college or university in the future.
- ◆ Consider taking the PSAT (preliminary SAT/National Merit Scholarship Test) if you plan to apply to a two-year college or university in the future.
- ◆ Use the information in your portfolio to create a resume.
- ◆ Apply for summer jobs, internships, or volunteer activities related to your career cluster.

GRADE 11 JUNIOR YEAR

- ◆ Take the PSAT/NMSQT.
- ◆ Use resources available at your school (books, online tools, college fairs, etc.) to research postsecondary education options related to your career goals.
- ◆ Register to take either the ACT or the SAT I and SAT II Subject Tests. There are testing dates every month from January through June. Registration deadlines are approximately four weeks before each testing date.
- ◆ Apply for summer jobs, internships, and volunteer activities related to your career goals.

GRADE 12 SENIOR YEAR

- ◆ In the fall, apply to postsecondary programs and retake any standardized college admissions tests if you would like to improve your score.
- ◆ Beginning in November, complete college financial aid forms. Deadlines and required data differ from school to school, so read the instructions carefully.
- ◆ In the spring, choose your postsecondary program on the basis of where you have been accepted, costs, etc.
- ◆ Continue doing your best work. Most schools require a final transcript before making your acceptance official.



COLLEGE PREP: Getting Accepted

The college admissions process can be stressful and a bit scary, especially if you are the first in your family to apply. Give yourself the best shot at getting into a college program that matches your goals by following these five steps:

1. Make the Grade

Your grade point average really does count, so do your best work on every assignment, pay attention in class, and participate in group discussions.

2. Get Involved

Build teamwork and leadership skills by joining clubs and teams at your school, volunteering for service projects, and participating in church or community activities.

3. Make a List

Before you can apply to college, you have to figure out what you would like to study and what matters most to you (like location, size, or religious affiliation). Use the college guides in your local library, school library, or counselor's office to start making a list of colleges that interest you.

4. Plan for Tests

Most colleges want scores from the ACT, SAT, or SAT II tests. See what tests the schools on your list require, sign up to take them in time to include the scores on your application, and then practice the free SAT sample questions.

5. Be Neat and Complete

Before you send in a college application, double-check your spelling, make sure nothing is missing, and save a copy just in case you have to submit it again.

PAYING YOUR WAY: Financial Aid

Every Alabama student can afford to go to college. It just takes a little planning. Put your college dreams within financial reach by taking these five steps:

1. Consider a Community College

Alabama's public and private two-year colleges offer an affordable way to earn an associate's degree or complete enough credits to transfer into a four-year school as a junior.

2. Weigh Your Options

Attending one of Alabama's four-year public or private schools cuts travel costs and other living expenses, as compared to attending schools out of state. In addition, public schools offer reduced in-state tuition, and, if there's a college nearby, you can save even more by living at home.

3. Rise to the Top

Apply to a couple of schools at which your grades and accomplishments put you near the top of the typical applicant pool. Since your application will stand out, you'll be more likely to qualify for scholarships and other merit aid.

4. Do a Little Digging

More than one million local, national, and college-specific scholarships are available each year. Ask your school librarian and counselor for help finding printed scholarship resource guides. To find and apply for scholarships online, sign up for the free college scholarship search source.

5. Apply for Aid

Fill out the Free Application for Federal Student Aid (FAFSA) as soon as possible after January 1 of the year you'll be starting college. FAFSA forms and instruction booklets are available in your guidance counselor's office. Some schools also require and others have their own financial aid forms. Carefully read each college's application to figure out what forms you need to submit and when.

Tool Box



Resource Shelf

Use these websites and other resources available from your school counselor to learn more about careers, career clusters, and educational and job opportunities in high school and beyond.

ACCESS

ACCESS (Alabama Connecting Classrooms, Educators, and Students Statewide) Distance Learning provides opportunities and options for Alabama public high school students to engage in advanced placement (AP), elective, and other courses to which they may not otherwise have access.

Alabama Career Information Network

This new Web portal increases Alabama students' and families' access to valuable career exploration activities and college financial aid information.

Alabama Commission on Higher Education

Click on "Colleges & Universities" within this website for a list of four-year institutions in Alabama.

The Alabama Community College System

Learn all about the public and private two-year colleges in Alabama. Connect directly to each school's website to see the courses, majors, degrees, and scholarships it offers to Alabama students.

Alabama Tech Prep

This booklet is sponsored by Alabama Tech Prep. The goal of Tech Prep is to create a smooth transition from high school to college and to a career.

Alabama Virtual Library

This Alabama Legislature-funded site provides all students, teachers, and citizens of the State of Alabama with online access to essential library and information resources.

America's Career InfoNet

Use this site to search for occupational information, industry information, and state-specific labor market information.

Career Voyages

This career planning resource helps students, parents, career changers, and career advisors.

O*NET (Occupational Information Network)

O*NET provides full information on occupations, including state-by-state salary data, employment prospects, and skill matching for students.

U.S. Department of Labor Occupational Outlook Handbook

A valuable resource for both counselors and students, this federal website offers updated information on careers, job responsibilities and working conditions, salaries, and what jobs will be available in the future.

Articulation agreements: formal agreements between or among educational organizations (high schools, community colleges, and universities) that allow students to receive college credit for courses taken in high school.

Associate's degree: a two-year degree awarded by a community college.

Bachelor's degree: a four-year degree awarded by a college or university.

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

Career Clusters: identifies pathways from high schools to two- and four-year colleges, technical schools, graduate schools, apprenticeship programs, and workplace so that learners can recognize the relationship between what they learn in school and what they can do in the future.

Career Pathways: pathways are sub-groupings of occupations/career specialties. Occupations/Career specialties are grouped into Pathways based on the fact that they require a set of common knowledge and skills for career success.

Doctoral degree: a degree awarded by universities for study beyond a master's degree. May also be called a Ph.D. or a first professional degree.

Dual enrollment: a program between Alabama public colleges and universities and local boards of education that allows high school students to enroll in certain approved college-level courses to receive both high school and college credit.

ECEP (Early College Enrollment Program): a program that allows juniors and seniors to have full-time enrollment at an Alabama public college or university while still graduating with their class and staying involved with high school activities.

Extended learning experiences: participation in career and technical student organizations, co-curricular activities, job shadowing, internships, or community service.

Internship: an extended learning experience that gives students an opportunity to work temporarily at an entry-level job in a career that interests 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 and high school are referred to as *secondary education*, so *postsecondary* means after high school.

STARS (State Transfer & Articulation Reporting System): STARS System allows public two-year students in Alabama to obtain a Transfer Guide/Agreement for the major of their choice. This guide/agreement, if used correctly, guides the student through their first two years of coursework and prevents loss of credit hours upon transfer to the appropriate public four-year university in Alabama.



