HEALTH SCIENCE EDITION

PATHWAYS TO SUCCESS

An education– and career–planning guide for South Carolina students
Dear South Carolina Student,

“What do you want to be when you grow up?” You’ve heard it again and again, and if you’re like most people in school, you probably feel pretty lost. However, knowing what appeals to you or, better yet, what you want to do, can help you focus on those subjects and activities that will prepare you for the future.

But with so much to think about in life right now, and so many career directions to choose from, choosing a career pathway can be overwhelming. Even worse, what if you were to decide and then change your mind?

How would you like to know more about your options? This guide offers you realistic insight into various career clusters and how they might fit into the way you think and feel. Pathways to Success can help you get started. It is a series of education- and career-planning guides designed to help you make informed, smart career decisions. You can use this information to eliminate options that aren’t attractive, so you can begin focusing on a career direction that is more appealing.

If you change your mind along the way, Pathways to Success can help you redirect your career plans, courses, and extracurricular activities.

In South Carolina, there are 16 career clusters that you can explore. This issue of Pathways to Success introduces you to one of these clusters. The clusters correspond to different fields within the job market (business, healthcare, the arts, agriculture, manufacturing, etc.). Each issue of Pathways to Success explains what it is like to work in one of the career clusters, what kinds of jobs are available, and what parts of the career cluster are growing fastest. It also spells out the specific ways to prepare yourself for an occupation: majors to choose in high school, what classes to take, opportunities to learn outside of class, and the kind of education and training you can pursue after high school.

Believe it or not, being in school gives you a great chance to explore all of your options. So go for it. Figure out just how you feel about certain subjects. Seek out those things that you feel good about. Then start preparing yourself so you will be able to do the things you like to do “when you grow up.”

Examine Health Science Careers

Health Science is the fastest-growing sector of the South Carolina job market, and high demand for healthcare workers means their jobs are among the best paying in the state, as well. As South Carolina’s population ages and more people need healthcare services, opportunities expand for employees who like working with people and have mastered the basics in math, science, and communications. You don’t have to go to school for 10 years, either—plenty of good healthcare jobs require only associate’s or bachelor’s degrees. Read on to find out if you’ve got what it takes for a healthcare career.

Contents
4 Seven Steps to Success
Making your way through high school, on to college or other education, and into a Health Science career all starts with smart planning.

7 Caring Careers
Health Science careers have one goal in common: to maintain and restore health and deliver care.

10 Pick a Major
Choose a major and start training for a Health Science future.

16 Clinical Practice
Health Science career success requires training in real-world healing.

18 Make the Most Out of Your Health Science Career by Specializing
Extend your career training to college and beyond.

21 Resource Roundup
Find more information on Health Science education and career planning.

Attention:
Parents, Teachers, and Counselors: This Guide Is for You, Too.

This career cluster guide speaks to students about their education and career paths, but you play a critical role by providing guidance as they plan their futures. Read this guide and learn more about the Health Science cluster. Then sit down and talk with your child or a student you are advising. Help craft an Individual Graduation Plan, or IGP, that puts that teen on a personal pathway to success (see “What is an IGP?” on page 6).
What Are Career Clusters and Majors?

Career clusters help you acquire the knowledge and skills you need to reach your personal career goals. They organize what you learn in school around specific professional fields such as Education and Training or Information Technology. Information Technology, for example, focuses on professions that require highly technical training, while Human Services emphasizes occupations that involve people skills. South Carolina recognizes these 16 career clusters offered at various schools across the state.

- Agriculture, Food, and Natural Resources
- Architecture and Construction
- Arts, A/V Technology, and Communications
- Business, Management, and Administration
- Education and Training
- Finance
- Government and Public Administration
- Health Science
- Hospitality and Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections, and Security
- Manufacturing
- Marketing, Sales, and Service
- Science, Technology, Engineering, and Mathematics
- Transportation, Distribution, and Logistics

Each cluster consists of career majors, which are based on groups of professions that require similar talents, knowledge, and skills. For example, five majors fall within the Health Science cluster (see illustration above). Each major provides the required courses, instruction, and experiences necessary to move toward employment in a specific field such as nursing or dentistry, either right after high school or after additional education in college, the military, or elsewhere.

A Model Career Cluster System

<table>
<thead>
<tr>
<th>Grades K–2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students learn about different kinds of work.</td>
</tr>
<tr>
<td>Students are instructed in diversity and gender equity in the workplace.</td>
</tr>
<tr>
<td>Students learn about goal setting and decision making.</td>
</tr>
<tr>
<td>Students learn what it means to be a good worker.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grades 3–5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students use career assessment instruments to identify occupations.</td>
</tr>
<tr>
<td>Students learn about occupations in the various career clusters.</td>
</tr>
<tr>
<td>Students get involved in career guidance classroom activities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students begin career exploration activities, including identification of learning opportunities in the community.</td>
</tr>
<tr>
<td>Students take career assessment instruments.</td>
</tr>
<tr>
<td>Students identify jobs within the clusters requiring different levels of education.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students identify the steps of the career decision-making process.</td>
</tr>
<tr>
<td>Students identify and explore sources of career information.</td>
</tr>
<tr>
<td>Students take career assessment instruments.</td>
</tr>
<tr>
<td>Students explore work-based learning activities including service learning, job shadowing, and mentoring.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students pick a cluster of study that they are interested in exploring.</td>
</tr>
<tr>
<td>Students explore work-based learning activities including service learning, job shadowing, and mentoring.</td>
</tr>
<tr>
<td>Students meet with parents, counselors, teachers, guardians, and legal designees to develop both an academic and career focus.</td>
</tr>
<tr>
<td>Students take career assessment instruments.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students explore work-based learning activities including service learning, job shadowing, and mentoring.</td>
</tr>
<tr>
<td>Students may declare majors and focus their elective choices in particular areas.</td>
</tr>
<tr>
<td>Students review and update their IGP.</td>
</tr>
<tr>
<td>Students take career assessment instruments.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students review and update their IGP.</td>
</tr>
<tr>
<td>Students take career assessment instruments.</td>
</tr>
<tr>
<td>Students explore work-based learning activities including service learning, job shadowing, and mentoring.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students review and update their graduation plans, with particular attention to postsecondary goals.</td>
</tr>
<tr>
<td>Students take career assessment instruments.</td>
</tr>
<tr>
<td>Students explore work-based learning activities including service learning, job shadowing, and mentoring.</td>
</tr>
<tr>
<td>Students may change or modify their career majors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students complete requirements for their majors.</td>
</tr>
<tr>
<td>Students receive recognition for completion of career cluster majors at graduation.</td>
</tr>
<tr>
<td>Students take career assessment instruments.</td>
</tr>
<tr>
<td>Students explore work-based learning activities including service learning, job shadowing, and mentoring.</td>
</tr>
<tr>
<td>Students may change or modify their career majors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Postsecondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are encouraged to review their IGP and modify or change this focus throughout their secondary school careers with the guidance of educators and parents.</td>
</tr>
</tbody>
</table>

* Students are encouraged to review their IGP's and modify or change this focus throughout their secondary school careers with the guidance of educators and parents.
Seven Steps to Success

Your future career can be fun, or it can make you totally miserable depending on whether you choose one that fits your unique personality, interests, goals, and abilities. Planning to be a nurse, for example, makes no sense if you can’t stand the sight of blood. Forget being an engineer if you aren’t going to take on advanced math. And if you live to be outdoors, opt out of a profession that keeps you cooped up in an office all day. The truth is, earning a living for about 40 years is a lot more rewarding—financially and otherwise—if you find the profession that fits you perfectly.

The search for your perfect profession starts with creating an Individual Graduation Plan, often called an IGP, to guide you through high school (see “What is an IGP?” on page 6). Every South Carolina student is required to create an IGP, but don’t think of it as a hassle. Instead, look at it as a chance to explore your interests and options and to start working toward your personal dream—whether it’s to be a movie star or a minister, a CEO or a chef, an entrepreneur or an engineer.

Here’s a step-by-step guide to creating your own Individual Graduation Plan.

Step 1: Complete Assessments

Start putting together your IGP by determining your strengths and weaknesses, what you love (or hate) to do with your time, and your hopes and dreams in life. To find the answers to these and other questions, take advantage of career assessment tools such as Holland’s Self-Directed Search, ASVAB (Armed Services Vocational Aptitude Battery), and the Kuder Interest Inventory available through your school and online (see “What is an IGP?” on page 6).

Step 2: Research Your Career Opportunities

After learning more about yourself, put together a list of careers you might want to research. Get the facts about what each possible profession pays, how many jobs in those professions are available in South Carolina (both now and in the future), and what kind of education you’ll need to break into each of them. (For profiles of 25 career options in Health Science, see page 8). Use the career information resources available through your school’s library and the Internet, including SCOIS, O*NET, and COIN (see “Resource Roundup” on page 21). Go beyond the statistics, though, to get inside the story on what those who work in occupations on your list really do every day. Start by contacting professional associations and visiting Web sites, then arrange personal interviews and job shadowing.

Step 3: Explore Your Education Options

Use your list of possible professions to investigate your education options in high school and beyond (see “Make the most out of your healthcare career by specializing” on page 18). Identify both two-year and four-year colleges with programs that best fit your career goals. In the same way, find out about obtaining associate’s degrees at two-year technical colleges with programs in Health Science. Also, research opportunities for Health Science training in the military. Then look at the clusters, majors, and courses offered in high school as well as special programs such as co-op education and dual-credit courses. Learn about academic requirements and tests you may have to take to graduate and get into college, including PACT, PSAT, PLAN, SAT, ACT, and WorkKeys. Also, explore extracurricular activities (see “Clinical Practice” on page 16) related to your list of possible professions, including sports, community service groups, band, clubs, and student organizations such as Health Occupations Students of America (HOSA).

Step 4: Talk About Your Options With Parents and Counselors

Assessment and research are essential, but input from your parents (or guardians), counselors, and teachers can also help as you narrow your career and education choices. Talk with them about what you are learning as you are assessed—they can help you further identify your strengths, opportunities, and interests. Tell them about your hopes and dreams. Discuss with them career options five, 10, or 20 years from now. Ask them to help with your research by providing resources or using their contacts to set up career exploration experiences such as job shadowing and internships. Time with your guidance staff person may be limited, so make the most of it. Come in with clear and well-researched ideas about your future, and ask what he or she can do to help you get where you want to go in life.

Now that you are armed with valuable research and good advice from people you trust, it’s time to make some decisions. Ask your counselor what format your IGP should follow—it likely will include most of the information shown in “What is an IGP?” on page 6. Select your career objective, cluster, and major, and write them down on your IGP. Fill in a tentative schedule for your high school years. Add to your plan lists of the out-of-class and work experiences you want to pursue and your goal after high school—college, the military, employment, or another option. It’s also smart to create a career portfolio, which is a file of material related to the education and career choices in your IGP. This folder might include items such as a resume, samples of your schoolwork, and research and assessment information. Once you have documented your decisions, save your IGP and career portfolio as your school directs.

Step 5: Make Your Choices and Document Your Decisions

Once you have documented your decisions, save your IGP and career portfolio as your school directs. Make a good IGP is frequently updated. It expands and changes as you go through high school. At least once at the end of each year, go back to your IGP and revise it as needed. Ask yourself if your decisions are still sound or if you’ve changed your mind about your career objective or plans after high school. Be realistic, but don’t feel locked in to the choices you made earlier. Switching your cluster or major as you learn more about your interests and options in life is okay. Some direction—even if it changes—is better than no direction at all. Use this annual review of your plan to make choices that are intentional, not accidental, as you grow and change.

Step 6: Review and Revise Your IGP Each Year

The goal of an IGP is to give you a clear path to high school graduation, but that’s not the end of your road to success. The plan you created will carry you on to college, the military, an apprenticeship, other education or training, or directly into the job market. You likely will continue to assess, research, discuss, and refine your career choices after high school and throughout your life.
An Individual Graduation Plan (IGP) is like a road map to your future. If you stay on course, you’ll reach your destination—graduation—with all the courses, skills, and experience you need to take your education or career to the next level. Here’s what a basic IGP includes:

### Information such as your name and school.

Your chosen career cluster is a field of study such as Information Technology or Hospitality and Tourism on which you plan to focus in high school and beyond. South Carolina recognizes 16 career clusters (see page 2), although local schools and districts may offer different clusters. This guide is an introduction to the Health Science cluster.

### Your chosen career major, a field such as Diagnostic Services or Health Informatics, in which you plan to work when you enter the job market.

Out-of-class learning opportunities you want to pursue, such as student organizations or work experiences.

A grade-nine-through-twelve outline of classes you should take, including core academic classes required for graduation and electives. Fill in the specific classes your school offers.

Your plan for what to do after high school—get an associate’s or bachelor’s degree, enter the armed forces, seek industry certification, find employment, or pursue other options. Be specific—it’s just a goal you can change later if needed.

### Nearly 150,000 people in South Carolina are employed in hundreds of different Health Science occupations—from physicians and nurses to veterinarians, health information technicians, dental hygienists, and nuclear medicine technologists. The one thing these jobs have in common is that they are all part of organized systems to maintain and restore health and deliver care.

Generally, people in Health Science are caring, because they are there to help; they like science, because they have to understand something about how a living thing works to assist it back to health; and they are detail-oriented, because so much is riding on what they do. That means studying biology and other sciences along with math has become important as healing relies more and more on new technologies.

As our elderly population increases, so does the high demand for careers in Health Science. In the next 25 years, the number of people aged 65 or older in South Carolina is expected to rise to more than one million. Older people need more healthcare, which is why our state will need more healthcare workers.

Health-related careers are 15 of the top 20 fastest-growing jobs in South Carolina (see “10 Fastest-Growing Health Science Professions” on page 19). That means Health Science jobs often offer relatively high salaries and job security, not just to doctors, but also to the many people who help doctors care for the sick.

Opportunities within the Health Science cluster are incredible. While the number of doctors is growing, the really booming jobs are those that play supporting roles in delivering healthcare such as physician assistants, dental hygienists, home health aides, and nurses, among others. These are very important health science careers, but they don’t require years of training. In fact, many Health Science jobs call for less than four years of education after high school.

For a sampling of Health Science occupations, check out “25 Career Choices in Health Science” on page 8.

Source: SC Employment Security Commission and U.S. Census Bureau
## About This Chart

This chart is a sampling of 25 of the more than 100 occupations that fall within the Health Science sector of the South Carolina job market. For more information about any Health Science occupation, check out the South Carolina Occupational Information System (SOCIS). This electronic database is packed with valuable information on careers, colleges, scholarships, and more. SCGIS is available in local schools and at more than 600 other locations throughout South Carolina. Here are explanations for the abbreviations and symbols used in this chart.

### Education Requirement Abbreviations

C — 12- or 18-month certificate
AD — Two-year associate’s degree
AP — Advanced Placement
BD — Four-year bachelor’s degree
HS — High school diploma or GED
MA — Master’s degree
NA — Information not available or item does not apply
OJT — On-the-job training
DD — Doctorate degree

### Source: www.salary.com

### Description:

1. The expected percentage increase or decline in the number of positions in the profession in South Carolina through 2008.
2. The minimum educational attainment required to enter the profession; occupations may have different entry-level jobs for those with different degrees.
3. The South Carolina Career Readiness Certificate demonstrates to employers that you have the skills necessary to be successful in your chosen occupation.

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### 25 Career Choices in Health Science

<table>
<thead>
<tr>
<th>Occupation</th>
<th>SC Salary</th>
<th>Job Growth</th>
<th>Education Required</th>
<th>Career Readiness Certificate Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>$204,290</td>
<td>NA</td>
<td>DD</td>
<td>gold</td>
<td>Diagnoses and treats human diseases and injuries</td>
</tr>
<tr>
<td>Dentist</td>
<td>$143,123</td>
<td>NA</td>
<td>DD</td>
<td>gold</td>
<td>Examines and treats patients who have cavities or injuries/diseases of the teeth, gums, and mouth.</td>
</tr>
<tr>
<td>Nurse Anesthetist</td>
<td>$135,763</td>
<td>NA</td>
<td>BD, MA</td>
<td>gold</td>
<td>Administers anesthetics under the orders of surgical anesthesiologists.</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>$100,217</td>
<td>NA</td>
<td>DD</td>
<td>gold</td>
<td>Dispenses drugs and medicines.</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>$71,290</td>
<td>27.0%</td>
<td>MA</td>
<td>gold</td>
<td>Examines and treats patients independently and in autonomous collaboration with physicians and other healthcare professionals.</td>
</tr>
<tr>
<td>Veterinarian</td>
<td>$92,780</td>
<td>9.4%</td>
<td>DD</td>
<td>gold</td>
<td>Diagnoses and treats sick and injured animals.</td>
</tr>
<tr>
<td>Chiropractor</td>
<td>$92,305</td>
<td>NA</td>
<td>DD</td>
<td>gold</td>
<td>Treats patients primarily by manipulating parts of the body, particularly the spinal column.</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>$79,203</td>
<td>23.6%</td>
<td>BD</td>
<td>gold</td>
<td>Provides medical services to patients under the supervision of a doctor.</td>
</tr>
<tr>
<td>Physical Therapist</td>
<td>$72,249</td>
<td>23.6%</td>
<td>MA</td>
<td>gold</td>
<td>Treats patients disabled by a disease or injury using exercise, light, heat, cold water, electricity, ultrasound, and massage.</td>
</tr>
<tr>
<td>Health Information Administrator</td>
<td>$71,290</td>
<td>NA</td>
<td>BD</td>
<td>bronze</td>
<td>Helps plan, design, and manage healthcare record systems.</td>
</tr>
<tr>
<td>Audiologist</td>
<td>$66,321</td>
<td>21.1%</td>
<td>BD</td>
<td>gold</td>
<td>Assesses and treats hearing problems.</td>
</tr>
<tr>
<td>Pulmonary Perfusionist</td>
<td>$67,410</td>
<td>24.3%</td>
<td>BD</td>
<td>gold</td>
<td>Operates an electrocardiograph machine to record the action of the heart during surgery.</td>
</tr>
<tr>
<td>Clinical Laboratory Technologist</td>
<td>$67,216</td>
<td>23.9%</td>
<td>BD</td>
<td>gold</td>
<td>Performs tests and interprets results for physicians in hospitals, doctors’ offices, and clinics for use in diagnosis and treatment of disease.</td>
</tr>
<tr>
<td>Dietitian and Nutritionist</td>
<td>$66,224</td>
<td>20.0%</td>
<td>BD, MA</td>
<td>gold</td>
<td>Applies the rules of good nutrition to the preparation and serving of meals in hospitals, schools, and restaurants.</td>
</tr>
<tr>
<td>Registered Nurse (RN)</td>
<td>$64,729</td>
<td>NA</td>
<td>AD, BD</td>
<td>gold</td>
<td>Cares for the sick and injured and helps people stay well.</td>
</tr>
<tr>
<td>Dental Hygienist</td>
<td>$63,626</td>
<td>24.4%</td>
<td>AD</td>
<td>gold</td>
<td>Cleans teeth; gives preventive dental care and advice.</td>
</tr>
<tr>
<td>Athletic Trainer</td>
<td>$57,580</td>
<td>17.8%</td>
<td>BD</td>
<td>gold</td>
<td>Works with athletes to prevent injuries. Makes sure athletes are physically ready to play after injuries occur.</td>
</tr>
<tr>
<td>Electrophysiological Technician</td>
<td>$52,478</td>
<td>NA</td>
<td>HS, OT, AD</td>
<td>gold</td>
<td>Operates equipment that records the electrical activity of the heart on a graph and provides doctors with a way to diagnose brain disorders and head injuries.</td>
</tr>
<tr>
<td>Optician</td>
<td>$59,375</td>
<td>12.6%</td>
<td>OT, HAS, AD, MP</td>
<td>gold</td>
<td>Makes eyeglasses or dispenses and fits glasses depending on training as a manufacturing or dispensing optician.</td>
</tr>
<tr>
<td>Licensed Practical Nurse (LPN)</td>
<td>$37,874</td>
<td>NA</td>
<td>C</td>
<td>silver</td>
<td>Cares for patients in hospitals, clinics, doctors’ offices, and long-term care facilities.</td>
</tr>
<tr>
<td>Dental Assistant</td>
<td>$31,768</td>
<td>24.5%</td>
<td>OT, HS, AD, AP</td>
<td>gold</td>
<td>Aids dentists during the examination and treatment of clients.</td>
</tr>
<tr>
<td>Dialysis Technician</td>
<td>$30,772</td>
<td>23.6%</td>
<td>HS, OT, AD</td>
<td>gold</td>
<td>Provides services to patients with kidney disorders. Operates a dialysis machine that clears the patient’s blood of waste products.</td>
</tr>
<tr>
<td>Emergency Medical Technician</td>
<td>$28,686</td>
<td>19.3%</td>
<td>HS, AD</td>
<td>gold</td>
<td>Administers emergency aid to accident victims and to those who suffer sudden illnesses.</td>
</tr>
<tr>
<td>Medical Assistant</td>
<td>$27,359</td>
<td>23.6%</td>
<td>HS, AD</td>
<td>silver</td>
<td>Performs routine clinical and office duties in doctors’ offices, clinics, and hospitals.</td>
</tr>
<tr>
<td>Nurse Aide</td>
<td>$22,844</td>
<td>24.1%</td>
<td>HS</td>
<td>silver</td>
<td>Provides patient care such as personal care, bedmaking, feeding, and other activities of daily living along with basic treatments.</td>
</tr>
</tbody>
</table>

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For more information on the CRC in South Carolina go to [www.WorkReadySC.org](http://www.WorkReadySC.org).
## Career Major Map: Diagnostic Services

Diagnostic Services employees analyze and record the state of a patient’s health at the time of the examination. Employees in Diagnostic Services include all the technicians who conduct procedures that give physicians the information they need to provide effective treatment.

### Required Core for Graduation

| Sample Core Choices For additional college entrance requirements, refer to the college of your choice. |
|---|---|---|---|---|
| 9 | 10 | 11 | 12 |
| **English** Four Units Required | English 1 | English 2 | English 3 | English 4 |
| **Math** Four Units Required | Algebra 1 or Math for the Technologies 1 | Geometry or Math for the Technologies 2 | Algebra 2 or Math for the Technologies 3 | Pre-Calculus or Math for the Technologies 4 |
| **Science** Four Units Required | Physical Science | Biology or Applied Biology | Chemistry or Chemistry for the Technologies | Physics or Chemistry for the Technologies |
| **Social Studies** Three Units Required | World Geography | Global Studies 2 or Social Studies Elective or World History | U.S. History | Economics/Government |

### Additional State Requirements

- Physical Education or JROTC (one unit)
- Computer Science (one unit)
- Electives (seven units)
- Pass High School Assessment
- CTE or Modern or Classical Language (one unit)
- Art (one unit)

### Courses for Major

<table>
<thead>
<tr>
<th>Minimum of four credits required</th>
<th>Complementary Course Work</th>
<th>Extended Learning Opportunity Options Related to Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Medical Services 1, 2, 3, and 4 Introduction to Health Science Health Science Technology 1, 2 Health Science Work-based credit Gerontology Sports Medicine 1, 2 Sports Medicine Work-based credit Medical Terminology</td>
<td>Anatomy and Physiology Probability and Statistics Physics Modern or Classical Language</td>
<td>Career Mentoring Shadowing Internship Cooperative Education Senior Project HOSONA membership</td>
</tr>
</tbody>
</table>

### Professional Opportunities Upon Graduation

- High School Diploma
- Phlebotomist
- Additional Training to 2-year Degree
- Cardiovascular Technologist
- Clinical Lab Technician
- Histotechnician
- Radiologic Technologist/Radiographer
- 4-year Degree & Higher
- Medical Technologist
- Clinical Laboratory Scientist
- Nuclear Medicine Technologist
- Pathologist
- Exercise Physiologist
- Geneticist
- Histotechnologist
- Diagnostic Medical Sonographer

### Taking charge of your life is not the easiest thing in the world to do. It’s a little easier to climb on a bus, take the first empty seat, and snooze your way to your destination than it is to get in your own car, fill it with gas, and try to figure out how to get where you want to go.

Driving yourself and running your own life is more fun than having someone else do it for you, however, with a few directions, it’s not that hard to find your way. The Career Major Maps (on page 11) are your guide to making your way to a future in the Health Science cluster. As we’ve seen, all sorts of jobs in healthcare require all sorts of skills—everything from giving first aid at accident scenes to fitting people with eyeglasses. You must plan ahead for the career that suits you best.

You have lots of options as you move from a freshman to a senior. If your school has a career cluster system, one of your first decisions, after choosing to go into Health Science, is choosing your high school career major. (See “What Are Career Clusters and Majors?” on page 2). With majors, your options have been sorted out ahead of time. They give you a kind of map that divides the job terrain into manageable areas. For example, Health Science is split into five major areas or study:

- Diagnostic Services (page 11)
- Therapeutic Services (page 12)
- Health Informatics (page 13)
- Biotechnology Research and Development (page 14)
- Support Services (page 15)

These five majors correspond to the Health Science job market in South Carolina. If you choose a Therapeutic Services major, for example, you can follow that pathway on to particular programs in Therapeutic Services offered at two- or four-year colleges, and then into occupations such as nursing, medicine, or veterinary science.

### You Can Always Change Directions

What happens if you follow the road map and end up someplace you didn’t really want to go? Don’t worry. Your decision about a cluster and major is not permanent. As you move along through your high school career, you will have plenty of opportunities to review and change your choices. You are free to sample different majors and opt for the one that best suits your tastes.

The following pages present “Career Major Maps” for the five education and employment areas within Health Science. They include sample high school schedules, but your school may offer different programs and classes. The maps also include information about extracurricular activities, options after high school, and jobs for which each major might prepare you. Use these maps to create your IGP and to chart your course into the career of your choice.

Local South Carolina schools and districts may offer fewer career clusters and majors, clusters and majors that are organized differently, or clusters and majors with alternative names.
## Career Major Map: Therapeutic Services

Therapeutic Services employees work to counter the effects of disease and injury, maintaining or improving patients’ health. These workers include physicians, veterinarians, dentists, psychologists, and the various people who assist them in the delivery of care.

<table>
<thead>
<tr>
<th>Required Core for Graduation</th>
<th>Sample Core Choices</th>
<th>For additional college entrance requirements, refer to the college of your choice.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English* Four Units Required</td>
<td>English 1, English 2, English 3, English 4</td>
<td></td>
</tr>
<tr>
<td>Math* Four Units Required</td>
<td>Algebra 1 or Math for the Technologies 1, Algebra 2 or Math for the Technologies 2, Pre-Calculus or Math for the Technologies 4</td>
<td></td>
</tr>
<tr>
<td>Science* Four Units Required</td>
<td>Physical Science, Biology or Applied Biology, Chemistry or Chemistry for the Technologies, Physics or Physics for the Technologies</td>
<td></td>
</tr>
<tr>
<td>Social Studies Three Units Required</td>
<td>Global Studies 1 or World Geography, Global Studies 2 or Social Studies Elective or World History, U.S. History, Economics/Government</td>
<td></td>
</tr>
<tr>
<td>Additional State Requirements</td>
<td>Physical Education or JROTC (one unit), Computer Science (one unit), Electives (seven units), Pass High School Assessment, CTE or Modern or Classical Language (one unit), Art (one unit)</td>
<td></td>
</tr>
</tbody>
</table>

**Courses for Major** (Minimum of four credits required)

- Introduction to Health Science
- Health Science Technology 1, 2
- Health Science Work-based credit
- Gerontology
- Sports Medicine 1, 2
- Sports Medicine Work-based credit
- Emergency Medical Services 1, 2, 3, and 4
- Medical Terminology

**Complementary Course Work**

- Anatomy and Physiology
- Probability and Statistics
- Physics
- Sports Nutrition
- Modern or Classical Language

**Extended Learning Opportunity Options Related to Major**

- Career Mentoring
- Shadowing
- Internship
- Cooperative Education
- Senior Project
- NHA membership

**Professional Opportunities Upon Graduation**

- High School Diploma
- Certified Nursing Assistant
- Emergency Medical Technician
- Home Health Aide
- Pharmacy Technician
- Additional Training to 2-year Degree
- Dental Hygienist
- Paramedic
- Respiratory Therapist
- 4-year Degree & Higher
- Athletic Trainer
- Registered Nurse
- Occupational Therapist
- Physical Therapist
- Pharmacist
- Physician
- Physician Assistant

*Course selection will depend on satisfying prerequisites.

## Career Major Map: Health Informatics

Health Informatics workers manage and document healthcare system information to support patient care. These employees often work in hospitals providing the range of information-management services needed to maintain the delivery of healthcare.

<table>
<thead>
<tr>
<th>Required Core for Graduation</th>
<th>Sample Core Choices</th>
<th>For additional college entrance requirements, refer to the college of your choice.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English* Four Units Required</td>
<td>English 1, English 2, English 3, English 4</td>
<td></td>
</tr>
<tr>
<td>Math* Four Units Required</td>
<td>Algebra 1 or Math for the Technologies 1, Algebra 2 or Math for the Technologies 2, Pre-Calculus or Math for the Technologies 4</td>
<td></td>
</tr>
<tr>
<td>Science* Four Units Required</td>
<td>Physical Science, Biology or Applied Biology, Chemistry or Chemistry for the Technologies, Physics or Physics for the Technologies</td>
<td></td>
</tr>
<tr>
<td>Social Studies Three Units Required</td>
<td>Global Studies 1 or World Geography, Global Studies 2 or Social Studies Elective or World History, U.S. History, Economics/Government</td>
<td></td>
</tr>
<tr>
<td>Additional State Requirements</td>
<td>Physical Education or JROTC (one unit), Computer Science (one unit), Electives (seven units), Pass High School Assessment, CTE or Modern or Classical Language (one unit), Art (one unit)</td>
<td></td>
</tr>
</tbody>
</table>

**Courses for Major** (Minimum of four credits required)

- Introduction to Health Science
- Health Science Technology 1, 2
- Medical Terminology

**Complementary Course Work**

- Anatomy and Physiology
- Administrative Support Technology
- Modern or Classical Language

**Extended Learning Opportunity Options Related to Major**

- Career Mentoring
- Shadowing
- Internship
- Cooperative Education
- Senior Project
- NHA membership

**Professional Opportunities Upon Graduation**

- High School Diploma
- Admitting Clerk
- Unit Coordinator
- Additional Training to 2-year Degree
- Health Information Coder
- Medical Office Manager
- Medical Biller
- 4-year Degree & Higher
- Public Health Educator
- Data Analyst
- Epidemiologist
- Healthcare Administrator

*Course selection will depend on satisfying prerequisites.
Career Major Map: Biotechnology Research and Development

Biotechnology Research and Development workers pursue advances in science and technology to support and improve the diagnosis and treatment of disease. These employees, often working in laboratories and offices in healing settings, perform scientific procedures that further the delivery of healthcare.

**Sample Core Choices**
For additional college entrance requirements, refer to the college of your choice.

<table>
<thead>
<tr>
<th>Course for Graduation</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><em><em>English</em> Four Units Required</em>*</td>
<td>English 1</td>
<td>English 2</td>
<td>English 3</td>
<td>English 4</td>
</tr>
<tr>
<td><em><em>Math</em> Four Units Required</em>*</td>
<td>Algebra 1 or Math for the Technologies 1</td>
<td>Geometry or Math for the Technologies 2</td>
<td>Algebra 2 or Math for the Technologies 3</td>
<td>Pre-Calculus or Math for the Technologies 4</td>
</tr>
<tr>
<td><em><em>Science</em> Four Units Required</em>*</td>
<td>Physical Science</td>
<td>Biology or Applied Biology</td>
<td>Chemistry or Chemistry for the Technologies</td>
<td>Physics or Physics for the Technologies</td>
</tr>
<tr>
<td><strong>Social Studies Three Units Required</strong></td>
<td>Global Studies 1 or World Geography</td>
<td>Global Studies 2 or Social Studies Elective or World History</td>
<td>U.S. History</td>
<td>Economics/Government</td>
</tr>
</tbody>
</table>

**Additional State Requirements**
- Physical Education or JROTC (one unit)
- Computer Science (one unit)
- Electives (seven units)
- Pass High School Assessment
- CTE or Modern or Classical Language (one unit)
- Art (one unit)

**Courses for Major** (Minimum of four credits required)
- Introduction to Health Science
- Health Science Technology 1, 2
- Biotechnical Engineering
- Medical Terminology
- Principles of Biomedical Sciences
- Human Body Systems
- Medical Intervention
- Scientific Research

**Complementary Course Work**
- Anatomy and Physiology
- Chemistry 2
- Biology 2
- Probability and Statistics
- Modern or Classical Language

**Extended Learning Opportunity Options Related to Major**
- Career Mentoring
- Shadowing
- Internship
- Cooperative Education
- Senior Project
- HOSA membership

**Professional Opportunities Upon Graduation**
- High School Diploma
- Additional Training to 2-year Degree
  - Lab Assistant - Genetics
  - Lab Technician
  - Quality Assurance Technician
  - Quality Control Technician
- 4-year Degree & Higher
  - Biochemist
  - Bioinformatics Scientist
  - Biomedical Chemist
  - Biostatistician
  - Microbiologist
  - Research Scientist
  - Toxicologist

*Course selection will depend on satisfying prerequisites.

Career Major Map: Support Services

Support Services workers create and maintain a healthcare delivery environment that supports diagnosis and therapy. They maintain the healthcare setting in a way that ensures the safe and efficient delivery of care.

**Sample Core Choices**
For additional college entrance requirements, refer to the college of your choice.

<table>
<thead>
<tr>
<th>Course for Graduation</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><em><em>English</em> Four Units Required</em>*</td>
<td>English 1</td>
<td>English 2</td>
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<td>English 4</td>
</tr>
<tr>
<td><em><em>Math</em> Four Units Required</em>*</td>
<td>Algebra 1 or Math for the Technologies 1</td>
<td>Geometry or Math for the Technologies 2</td>
<td>Algebra 2 or Math for the Technologies 3</td>
<td>Pre-Calculus or Math for the Technologies 4</td>
</tr>
<tr>
<td><em><em>Science</em> Four Units Required</em>*</td>
<td>Physical Science</td>
<td>Biology or Applied Biology</td>
<td>Chemistry or Chemistry for the Technologies</td>
<td>Physics or Physics for the Technologies</td>
</tr>
<tr>
<td><strong>Social Studies Three Units Required</strong></td>
<td>Global Studies 1 or World Geography</td>
<td>Global Studies 2 or Social Studies Elective or World History</td>
<td>U.S. History</td>
<td>Economics/Government</td>
</tr>
</tbody>
</table>

**Additional State Requirements**
- Physical Education or JROTC (one unit)
- Computer Science (one unit)
- Electives (seven units)
- Pass High School Assessment
- CTE or Modern or Classical Language (one unit)
- Art (one unit)

**Courses for Major** (Minimum of four credits required)
- Introduction to Health Science
- Health Science Technology 1, 2
- Biotechnical Engineering
- Medical Terminology
- Principles of Biomedical Sciences
- Human Body Systems
- Medical Intervention
- Scientific Research

**Complementary Course Work**
- Anatomy and Physiology
- Chemistry 2
- Biology 2
- Probability and Statistics
- Modern or Classical Language

**Extended Learning Opportunity Options Related to Major**
- Career Mentoring
- Shadowing
- Internship
- Cooperative Education
- Senior Project
- HOSA membership

**Professional Opportunities Upon Graduation**
- High School Diploma
- Additional Training to 2-year Degree
  - Biomedical/Clinical Technician
  - Hospital Maintenance Engineer
- 4-year Degree & Higher
  - Biomedical/Clinical Engineer
  - Facilities Manager

*Course selection will depend on satisfying prerequisites.
Clinical Practice

Health Science career success requires training in real-world healing.

Healing is a complicated art supported by centuries of scientific research. No one practices healthcare without hitting the books in a serious way to master the knowledge that underlies Health Science. By the same token, no one can play a successful part in a healthcare system without understanding healing as a hands-on art.

That’s why learning outside the classroom is a required part of Health Science education. South Carolina high school students working toward certification in Health Sciences spend a lot of time out of the classroom in healthcare settings — hospitals, long-term care facilities, doctors’ offices, veterinary clinics, pharmacies, and emergency medical services settings — learning to heal hands-on.

“Our students spend a good portion of their senior year — up to 60% of their time — learning outside the classroom,” says Nancy Allen, South Carolina’s coordinator of Health Science programs. “It’s the most important part of a student’s pathway. These work-based learning opportunities and partnerships with healthcare facilities are one of the most crucial components of the high school experience for Health Science majors.”

First get started…

Health Science students in South Carolina begin their educations with introductory courses that include early exposure to the wide variety of healthcare careers. These health science classes give you foundation skills typically required of all healthcare professionals.

This career exposure includes job shadowing, field trips, and talks by visiting speakers to show students the full range of careers available in the Health Science cluster. Job shadowing, in particular, helps you find out what a particular field is all about by physically putting you in the middle of it. By following an employee for a day in the course of his or her occupation, you can start to figure out if this is the right career path for you.

If your school has a HOsa chapter, you should become a member. This healthcare student organization promotes career opportunities in healthcare, holds national and state leadership conferences, sponsors scholarships for Health Science students, and can enhance academic, technical, and leadership skills (See “Health Science Organizations” page 17).

Then get to work

While job shadowing gives you a taste of working in a particular profession, it won’t provide the actual experience you need to earn certification or prepare you for further Health Science education after high school. Students enrolled in advanced courses in Health Science take advantage of full-blown work arrangements — some of them for pay — to get the experience they need for success.

Summer or school-year internships, cooperative work programs, and clinical rotations at local hospitals, clinics, and healthcare facilities are set up as required work-based learning components of these advanced courses. Students may spend three to six weeks in class at the beginning of the year to prepare for their clinical experience, mastering the National Healthcare Foundation Standards:

• academic foundation
  • communication
  • systems
  • employability skills
  • legal responsibilities
  • ethics
  • safety practices
  • teamwork
  • health maintenance practices
  • technical skills
  • information technology applications

Clinical experience may last from a period of a few weeks to a full semester, with an ongoing balance between in-classroom and out-of-classroom learning. For example, you might spend the morning in class and then head to the hospital to work for the afternoon. While you’re there, you’ll receive training, feedback, valuable experience, and credits. The most valuable arrangements will allow you to rotate among various departments to get a full understanding of the different opportunities available. Agreements are worked out in advance to carefully define what you will be allowed to do at the facility and what will be left in the hands of trained staff.

Nancy Allen says work-based learning experiences vary from school to school. “Exciting opportunities in real-life healthcare settings can range from observing an open-heart surgery, to participating in a virtual surgery project, to working in an emergency room,” she says.

...and start volunteering.

While getting a paycheck certainly helps, you’ll typically find plenty of learning opportunities in the Health Science cluster by volunteering. Long-term care facilities, hospitals, and other caring facilities in your community likely need and use volunteer aides to help meet patients’ needs. Donating your time and the skills you’ve learned in the classroom to community service is a great way to gain experience and serve others at the same time.

Whatever the exact arrangement, work-based learning in healthcare offers advantages in the job market, no matter what career you finally pursue.

Hands-On Healing

Blending Health Science course work with real-life clinical learning enables you to:

• Study healing in the clinics where it happens;
• Get a look at possible Health Science career choices;
• Fine-tune your focus on the future;
• Make more informed choices;
• Create an IGP that is effective and efficient;
• Graduate with the skills and experience that colleges and employers want;
• Earn college credits and even a paycheck before you graduate;
• Build your career portfolio and resume;
• Jumpstart your career and/or college education.

Health Science Organizations

Staying in touch with other high school students on your career path is another way to extend professional development beyond the classroom. You can meet other students in the cluster, compare notes on your studies, and develop communications and leadership skills. To enrich your career learning, get involved in one or more of these health-related organizations and activities.

• Health Occupations Students of America (HOsa) — HOsa is a student organization with 30,000 nationwide. South Carolina’s HOsa has nearly 1,000 members in about 65 chapters. Nancy Allen, who has served as national chairman of HOsa’s Board of Directors, says the group is not just another student club. Rather, it is an organization in an extension of the classroom, which reinforces academic and technical skills along with development of leadership skills, www.hosa.org

HOsa holds annual leadership conferences, organized at the national and state levels, that feature competitive events in nearly 35 healthcare skill and recognition sets. Competition at the national level ranges from Pathophysiology to Administrative Medical Assisting to Sports Medicine, and South Carolina students consistently receive the top medals in multiple categories.

• Area Health Education Consortium — Federally funded centers sponsor training workshops, and institutes to encourage those interested in healthcare careers to work in underserved rural areas. www.sahce.org

• Special Olympics — Sports competitions are organized for students with disabilities; these events offer good opportunities for volunteer work. www.specialolympics.org

• Nonprofit events, such as Relay for Life — This is one example of the many nonprofit medical events or causes you can be a part of. Relay for Life is an overnight marathon whose track events raise money for the American Cancer Society. You can volunteer to help out or organize a team to participate in the marathon itself. www.cancer.org

• Medical Explorers — Hospital-based clubs for high school students promote interest in healthcare careers. Health Science students also participate in many medical related nonprofit organizations; including the following:

  - Autism Speaks: www.autismspeaks.org
  - Alzheimer’s Association: www.alz.org
  - St. Jude Children’s Research Hospital: www.stjude.org
  - Children’s Miracle Network: www.childrensmiraclenetwork.org
  - Make-A-Wish Foundation: www.wish.org
  - and many others.
Postsecondary Options

Health Science Edition

Make the Most Out of Your Health Science Career by Specializing

Extend your career training to college and beyond.

College Connections

Each South Carolina two- and four-year college has a Web site that includes information about admission requirements, majors, fees, financial aid, internships, and scholarship opportunities.

You can find the Web site for any South Carolina public, private, or technical college through one of these sites:

- South Carolina Public Colleges/Universities
  www.state.sc.us/edu/univcoll.html
- South Carolina Technical Colleges
  www.sctechnical.tec.sc.us
- South Carolina Independent Colleges/Universities
  www.sciue.org

In South Carolina, Health Science students can and do emerge from high school as certified emergency medical technicians, nurse aides, and pharmacy technicians. Some are perfectly happy to stay with those occupations, but in the Health Science cluster, you can go as far as you wish by extending your education throughout your healthcare career.

In the Health Science cluster, generally, the more education you have, the better your chances for getting higher pay and better benefits, for finding more interesting opportunities, and for gaining more control of your life. So, always look for more training.

Educational costs shouldn’t be a factor, either. With the high demand for healthcare workers, financial aid for training is readily available. State, federal, and privately funded grants, loans, scholarships, and work-study programs are available, and some sources, such as the military, will actually pay you to go to school. (See “Financial Aid Basics” and “Joining the Military” on page 19).

Looking ahead, which pathway should you follow? Here is an overview of some after-high-school options that can help you make the most of your career in Health Science:

- **College Bound**
  Many of South Carolina’s four-year institutions offer bachelor’s and graduate degrees in many Health Science fields. These include the following:

  - Nutrition
  - Biochemistry
  - Biomedical
  - Epidemiology
  - Nursing
  - Animal and Veterinary Science

  The healthcare-related education available at our state’s four-year institutions can propel students as far as they want to go. For example, the University of South Carolina (USC) allows registered nurses who have completed associate’s degrees to transfer course work toward the completion of bachelor’s degrees in nursing. The state’s two medical schools, USC in Columbia and the Medical University of South Carolina (MUSC) in Charleston, offer doctorates of philosophy (PhDs) in scientific fields related to the training of medical doctors. Continuing education at both medical schools allows doctors to keep up with advancing science throughout their careers.

- **The Two-Year Option**
  Two-year technical colleges offer education connections that open up a world of career options. South Carolina operates a nationally recognized technical college system with 16 campuses spread across the state. In some cases, early enrollment or dual-credit classes can connect high school students to a two-year college; from there, a variety of pathways to higher education can lead practically anywhere. For example, associate’s degrees and certifications earned at Tri-County Technical College in Pendleton can take students directly into lucrative careers as nurses or medical technicians. The college also offers one-year certificates in Pre-Dental Hygiene, Pre-Health Information Management, and Pre-Occupational Therapy; an arrangement with nearby Greenville Technical College allows students to convert those certificates into associate’s degrees through additional work at Greenville Technical College. Students who have earned associate’s degrees at two-year colleges often transfer to four-year institutions to take their studies even further.

- **Financial Aid Basics**
  Pursuing a dream to work in healthcare can be an expensive proposition, particularly for students with eyes on medical school. More than 80% of medical students graduate with education debts, often amounting to tens of thousands of dollars. But the state of South Carolina, the federal government, colleges, banks, private donors, and professional and civic organizations all offer aid to help pay for Health Science education. You shouldn’t let the price tag keep you from getting the Health Science education you want, whether it’s an associate’s degree in Dental Hygiene or combined MD-PhD degrees, enabling you to pursue highly specialized medical research.

  South Carolina’s high school students who are members of Health Occupations Students of America (HOSA), the national student organization that promotes career opportunities in healthcare, are eligible for scholarships awarded at both the state and national levels. The state of South Carolina offers several kinds of scholarships through its Education Lottery and other programs. To date the South Carolina Educational Lottery has distributed nearly one billion dollars in scholarships and financial aid to South Carolina students. Funding available includes LIFE Scholarships, Lottery Tuition Assistance, Palmetto Fellows Scholarship, and the South Carolina HOPE Scholarship. To learn about these financing options, contact the financial aid office at a local two- or four-year college or university.

  You generally apply for state and federal financial aid at the same time you apply to a college or university by completing the Free Application for Federal Student Aid (FAFSA). To fill out the form online, visit www.fafsa.ed.gov. You also usually can get a copy of FAFSA from a high school or college.

  Look into additional programs offered by the military. Each branch of the service has programs that help students train in certain health professions before entering active duty. In return for the financial aid, students agree to serve for seven years either in the military or the Public Health Service. At the Community College of the Air Force (CCAF), students can train in a variety of healthcare fields, including Healthcare Management, Optometry, Physical Therapy, and Nuclear Medicine. Learn about the educational options available through the military at www.goarmy.com (the Army), www.navy.com (the Navy), www.airforce.com (the Air Force), www.marines.com (the Marines), and www.uscg.mil (the Coast Guard).

- **Joining the Military**
  Signing up for the Army, Navy, Air Force, Marines, or another branch of the military offers many education opportunities, particularly for people interested in healthcare careers. Other benefits, such as money to pay for college, are available to those who are willing to make a commitment to several years of military service. Students can pursue medical training in the service at the Uniformed Services University of Health Sciences, which offers free tuition in a program leading to a Doctor of Medicine (MD) degree. Graduates agree to serve for seven years either in the military or the U.S. Public Health Service. At the Community College of the Air Force (CCAF), students can train in a variety of healthcare fields, including Healthcare Management, Optometry, Physical Therapy, and Nuclear Medicine. Learn about the educational options available through the military at www.goarmy.com (the Army), www.navy.com (the Navy), www.airforce.com (the Air Force), www.marines.com (the Marines), and www.uscg.mil (the Coast Guard).

**10 Highest-Paying Health Science Professions**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Surgeon</td>
<td>$208,520</td>
</tr>
<tr>
<td>2. Anesthesiologist</td>
<td>$190,460</td>
</tr>
<tr>
<td>3. Physician</td>
<td>$161,600</td>
</tr>
<tr>
<td>4. Dentist</td>
<td>$147,760</td>
</tr>
<tr>
<td>5. Podiatrist</td>
<td>$143,570</td>
</tr>
<tr>
<td>6. Psychiatric</td>
<td>$122,470</td>
</tr>
<tr>
<td>7. Chiropractor</td>
<td>$109,940</td>
</tr>
<tr>
<td>8. Optometrist</td>
<td>$99,320</td>
</tr>
<tr>
<td>9. Pharmacist</td>
<td>$89,270</td>
</tr>
<tr>
<td>10. Orthodontist and Prosthetist</td>
<td>$83,620</td>
</tr>
</tbody>
</table>

Based on annual mean salary in South Carolina. Source: SCOTS

**10 Fastest-Growing Health Science Professions**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Job Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nuclear Medicine Technologist</td>
<td>25.1%</td>
</tr>
<tr>
<td>2. Surgical Technologist</td>
<td>24.8%</td>
</tr>
<tr>
<td>3. Diagnostic Medical Sonographer</td>
<td>24.6%</td>
</tr>
<tr>
<td>4. Dental Assistant</td>
<td>24.5%</td>
</tr>
<tr>
<td>5. Dental Hygienist</td>
<td>24.4%</td>
</tr>
<tr>
<td>6. Radiologic Technologist</td>
<td>24.4%</td>
</tr>
<tr>
<td>7. Physical Therapy Assistant</td>
<td>24.4%</td>
</tr>
<tr>
<td>8. Recreational Therapist</td>
<td>24.3%</td>
</tr>
<tr>
<td>9. Electrocardiograph Technician</td>
<td>24.3%</td>
</tr>
<tr>
<td>10. Paramedic</td>
<td>24.3%</td>
</tr>
</tbody>
</table>

Based on expected growth in percentage of jobs available between 2001 and 2008 in South Carolina. Source: SCOTS
Core Requirements for Graduation

High School Graduation

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Language Arts</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
</tr>
<tr>
<td>U.S. History and Constitution</td>
<td>1</td>
</tr>
<tr>
<td>Economics</td>
<td>0.5</td>
</tr>
<tr>
<td>U.S. Government</td>
<td>0.5</td>
</tr>
<tr>
<td>Other Social Studies</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education or Junior ROTC</td>
<td>1</td>
</tr>
<tr>
<td>Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>Modern or Classical Language or Career and Technology Education</td>
<td>1</td>
</tr>
<tr>
<td>English/Language Arts</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
</tr>
<tr>
<td>U.S. History and Constitution</td>
<td>1</td>
</tr>
<tr>
<td>Economics</td>
<td>0.5</td>
</tr>
<tr>
<td>U.S. Government</td>
<td>0.5</td>
</tr>
<tr>
<td>Other Social Studies</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education or Junior ROTC</td>
<td>1</td>
</tr>
<tr>
<td>Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>Modern or Classical Language or Career and Technology Education</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>7</td>
</tr>
<tr>
<td>Total *</td>
<td>24</td>
</tr>
</tbody>
</table>

* Must pass the exit examination.

State Certificate

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Language Arts</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
</tr>
<tr>
<td>U.S. History and Constitution</td>
<td>1</td>
</tr>
<tr>
<td>Economics</td>
<td>0.5</td>
</tr>
<tr>
<td>U.S. Government</td>
<td>0.5</td>
</tr>
<tr>
<td>Other Social Studies</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education or Junior ROTC</td>
<td>1</td>
</tr>
<tr>
<td>Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>Modern or Classical Language or Career and Technology Education</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>7</td>
</tr>
<tr>
<td>Total *</td>
<td>24</td>
</tr>
</tbody>
</table>

* Must have passed all standards in all subjects.

College Entrance

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Language Arts</td>
<td>4</td>
</tr>
<tr>
<td>Grammar and Composition</td>
<td>2</td>
</tr>
<tr>
<td>English Literature</td>
<td>1</td>
</tr>
<tr>
<td>American Literature</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>Algebra 1 and 2</td>
<td>2</td>
</tr>
<tr>
<td>Geometry</td>
<td>1</td>
</tr>
<tr>
<td>Pre-Calculus</td>
<td>1</td>
</tr>
<tr>
<td>Modern or Classical Language</td>
<td>2</td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>3</td>
</tr>
<tr>
<td>Biology, Chemistry, or Physics</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences, U.S. History, Economics, and Government</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education/ROTC</td>
<td>1</td>
</tr>
<tr>
<td>Arts</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
</tr>
</tbody>
</table>

Resource Roundup

Click your way to more career, educational, and scholarship resources by using the Internet. Here are some useful Web sites to get you started:

Health Science Web Sites

- South Carolina Health Science Career Cluster, www.ed.sc.gov/agency/offices/cate/health_sciences
- South Carolina Health Occupations Students of America, www.schosa.org
- U.S. Bureau of Health Professions, bhpxn.hrsa.gov
- South Carolina Hospital Association, www.scha.org
- Virtual Surgery Insider Project, www.virtualsurgery.tv
- Health Professions Network, www.healthprofnet.org
- Be Something Amazing, www.besomethingamazing.com

Search the Internet for other professional organizations related to Health Science careers.

Education and Career Planning Web Sites

Inside South Carolina

- SC Health Jobs, schoolhealthjobs.net
- South Carolina Chamber of Commerce, www.schamber.net
- South Carolina Commission on Higher Education, www.che400.state.sc.us
- South Carolina Higher Education Tuition Grants Commission, www.sctuitiongrants.com
- South Carolina Independent Colleges and Universities, www.scciuc.org
- South Carolina Occupational Information System, www.sosnet.org
- South Carolina Public Colleges and Universities, www.sc.edu/sctuition/sosnet.html
- WorkKeys, www.workready.org
- O*NET Online, www.onetcenter.org
- Armed Services Vocational Aptitude Battery (ASVAB), www.mcas.dla.mil/asvab
- O*NET Online, www.onetcenter.org
- Salary Information, www.salary.com

Outside South Carolina

- Career Communications, Inc., www.carcom.com
- Armed Services Vocational Aptitude Battery (ASVAB), www.todaysmilitary.com/app/fm/nextsteps/asvab
- Career Interests Game, career.missouri.edu/students/explore/thecareerinterestsgame.php
- Career Key, www.careerkey.org
- Coin Career College System, community.coin3.com
- College Board, www.collegeboard.org
- Kuder, www.sc.kuder.com
- O*NET Online, www.onetcenter.org
- Salary Information, www.salary.com

Resources

Find more information on Health Science education and career planning.

Career Guidance Information Sources

Check out these comprehensive sources of career and education information, which are available through your school or public libraries:

- SCOS (South Carolina Occupational Information System)—www.scos.net. An electronic database of information about careers, salaries, job requirements, educational options, scholarships, and more.
- O*NET (Occupational Information Network)—www.onetcenter.org. A national occupational information database that helps students make informed decisions about education, training, career choices, and work.
- COIN (Career Guidance System)—community.coin3.com. A comprehensive software program with career and college planning information, especially for South Carolina students.
- WorkKeys—www.workready.org. A comprehensive online college and career planning system with links to government and educational information and organizations.

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