

ARCHITECTURE &
CONSTRUCTION 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.”

Construction Careers Are Built to Last

In the building trades, you roll up your sleeves and hold on to your hat, because your work in the field can lead all the way to owning your own firm. Architecture and Construction is one of the last industries in which you can start as an apprentice and rise to the top of the ladder. Opportunities abound—if you’re an artist, you can design buildings, if you like hands-on work, you can make the designs a reality. Fourteen million new construction workers will be required by 2015, in careers ranging from carpentry and masonry to new technologies that computerize control of the internal environments of huge office buildings. Read on to see if one of these careers is right for you.



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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 as they plan their futures. Read this guide to get more information about the Architecture and Construction 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).

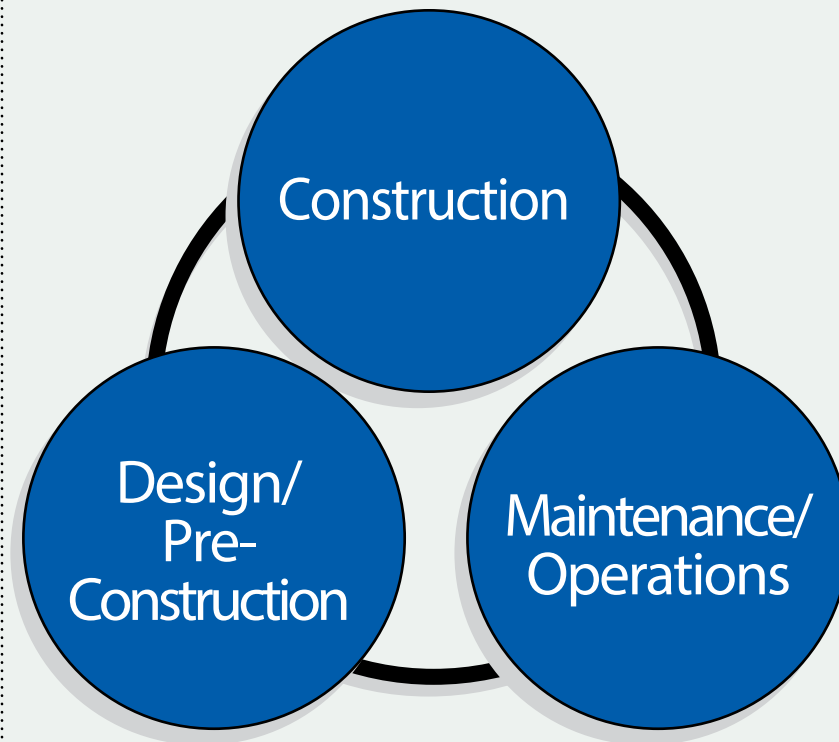


What Are Career Clusters and Majors?

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

Majors Clustered Under Architecture and Construction



Each cluster consists of career majors, which are based on groups of professions that require similar talents, knowledge, and skills. For example, three majors fall within the Architecture and Construction cluster (see diagram above). Each career major provides the courses and experience necessary to move toward employment in a specific field, such as heating and air-conditioning or drafting, either right after high school or after additional education in college, the military, or elsewhere.

A Model Career Cluster System

Career Awareness (Grades K-5)	Grades K-2	<ul style="list-style-type: none"> • Students learn about different kinds of work. • Students are instructed in diversity and gender equity in the workplace. • Students learn about goal setting and decision making. • Students learn what it means to be a good worker.
	Grades 3-5	<ul style="list-style-type: none"> • Students use career assessment instruments to identify occupations. • Students learn about occupations in the various career clusters. • Students get involved in career guidance classroom activities.
Career Exploration (Grades 6-8)	6th Grade	<ul style="list-style-type: none"> • Students begin career exploration activities, including identification of learning opportunities in the community. • Students take career assessment instruments. • Students identify jobs within the clusters requiring different levels of education.
	7th Grade	<ul style="list-style-type: none"> • Students identify the steps of the career decision-making process. • Students identify and explore sources of career information. • Students take career assessment instruments. • Students explore work-based learning activities including service learning, job shadowing, and mentoring.
	8th Grade	<ul style="list-style-type: none"> • Students pick a cluster of study that they are interested in exploring. • Students explore work-based learning activities including service learning, job shadowing, and mentoring. • Students meet with parents, counselors, teachers, guardians, and legal designees to develop both an academic and career portfolio consistent with their academic and career focus. • Students take career assessment instruments.
	9th Grade	<ul style="list-style-type: none"> • Students may declare majors and focus their elective choices in particular areas.* • Students review and update their IGPs. • Students take career assessment instruments. • Students explore work-based learning activities including service learning, job shadowing, and mentoring.
Career Preparation (Grades 9-Postsecondary)	10th Grade	<ul style="list-style-type: none"> • Students should declare a career major.* • Students review and update their IGPs. • Students take career assessment instruments. • Students explore work-based learning activities including service learning, job shadowing, and mentoring.
	11th Grade	<ul style="list-style-type: none"> • Students review and update their graduation plans, with particular attention to postsecondary goals. • Students take career assessment instruments. • Students explore work-based learning activities including service learning, job shadowing, and mentoring. • Students may change or modify their career majors.
	12th Grade	<ul style="list-style-type: none"> • Students complete requirements for their majors. • Students receive recognition for completion of career cluster majors at graduation. • Students take career assessment instruments. • Students explore work-based learning activities including service learning, job shadowing, and mentoring. • Students may change or modify their career majors.
	Postsecondary	<ul style="list-style-type: none"> • Students follow aligned career cluster pathways to a two- or four-year college, the military, other postsecondary education or training, or employment. • Students obtain rewarding entry-level employment within their chosen clusters. • Students continue to refine career choices throughout their lifetimes of learning.

* Students are encouraged to review their IGPs and modify or change this focus throughout their secondary school careers with the guidance of educators and parents.

Seven Steps to Success



Choosing a career in Architecture and Construction that's right for you—and sorting out the education and training needed to reach your goal—requires step-by-step planning.

Your future career can be fun, or it can make you totally miserable, depending on whether or not 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 Architecture and Construction, 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 the inside 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 "Studying a Trade" 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 Architecture and Construction. Also, research opportunities for Architecture and Construction training in the military. Then look at the clusters, majors, and courses offered in high school as well as special programs such as co-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 "Learn Your Craft On-Site" on page 16) related to your list of possible professions, including sports, community service groups, band, clubs, and student organizations such as SkillsUSA and TSA.

Step 4: Talk About Your Options With Parents and Counselors

Assessments 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.

Step 5: Make Your Choices and Document Your Decisions



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 portfolio 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 6: Review and Revise Your IGP Each Year

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 7: Graduate and Move On to Additional Education or Employment

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 evaluate, research, discuss, and refine your career choices after high school and throughout your life.

What is an IGP?

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 Education and Training or Business, Management, and Administration 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 Architecture and Construction cluster.

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.

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 school may make this type of basic IGP part of your career portfolio—a file or folder that also may contain such information as results of your career-interest assessments, examples of your schoolwork, your scores from standardized tests, and records of your work experiences.

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

Your chosen career major, a field such as Construction, in which you plan to work when you enter the job market.

Individual Graduation Plan			
Name: Harry Potter			
School: Central High School			
Cluster: Architecture and Construction			
Major: Construction			
Postsecondary Goal: Apprenticeship and certification in heating and air conditioning			
Required Courses			
Math for the Technologies 1	Math for the Technologies 2	Math for the Technologies 3	Math for the Technologies 4
Physical Science	Applied Science 1	Chemistry for the Workplace	Physics for the Technologies 1
English 1	English 2	Communications for the Workplace 2	Communications for the Workplace 4
World/History	U.S. History and Constitution	Business/Government	Entrepreneurship
Physical Education	Computer Science	Air Conditioning and Refrigeration Technology 1	Air Conditioning and Refrigeration Technology 2
Metal Fabrication	Spanish 1	Spanish 2	Security 1
Career/College Activities: Technology Student Association, SkillsUSA Work-Based Learning Opportunities: Job shadowing, apprenticeship, co-op education			

Lay Out Your Plans



Are you good at working with your hands? Can you think in 3-D? Do you like to work outdoors? Then you may have a future in Architecture and Construction.

Are you creative? A designer and dreamer who likes to think outside the box and forge ideas into reality? There may be a place in construction for you.

Do you like following a plan and carrying out instructions to the letter? Do you prefer being your own boss and directing a team toward a common goal? Guess what? A construction career might be what you're looking for, too.

The fact is that there are as many types of people in Architecture and Construction as there are jobs. The careers fall into three groups that roughly match the three Architecture and Construction majors (see "What Are Career Clusters and Majors?" on page 2).

n Design/Pre-Construction

Workers in design and pre-construction help plan and prepare for construction projects and generally require education at the two-year technical college level or beyond. Education opens doors to certification, which may depend on passing a written exam. Licensing requirements can vary from state to state. Architects and engineers need to pursue four-year bachelor's or graduate degrees.

n Construction

People involved directly in construction are those who like working outdoors, with their hands, and as members of a team. Opportunities are open immediately after high school.

The Mechanical Contractor Association's Workforce Committee reports that 28% of South Carolina students graduate with bachelor's degrees, but there is only a 20% need for that level of education in the workforce. If you opt not to attend college, you can work your way up to higher paying jobs in construction through certification programs, apprenticeships, or through traditional classes offered at two- and four-year colleges.

n Maintenance/Operations

Keeping things running smoothly in the modern world is crucial. Maintenance workers can train on the job as journeymen or study their craft in two- or four-year colleges. Certification or licensure in some trades is offered through trade associations and may be required to qualify for certain positions. College-level courses in business management can open doors to supervisory positions and a bigger paycheck.

Quick Quiz

Answer "yes" or "no" to these questions to see if Architecture and Construction is the right career cluster for you.

1. I can paint a room in my house.
2. I can repair a broken item, such as a watch or radio.
3. I am able to visualize how a flat drawing of a house or a store would look as a 3-D object.
4. I am good at taking apart an item and then putting it back together.
5. I am willing to lift heavy objects in my job.
6. I like to design and/or build things such as cabinets, a garage, or a frame for a house.
7. I'd like to build furniture or buildings.
8. I'd like to work with tools.
9. I'd like to work outdoors.
10. I am good at helping my friends and family do projects around the house, such as building a bookshelf or laying floor tile.

Totals: "Yes" _____ "No" _____

If you answered "yes" to five or more of the questions, then you may have what it takes to make it in Architecture and Construction.

Source: SCOIS (Coin Career) Assessment Tests



25 Career Choices in Architecture and Construction

Occupation	SC Salary	Job Growth ¹	Education Required ²	Career Readiness Certificate Level ³	Description
Electrical and Electronics Engineer	\$73,080	8.1%	BD, MA, DD	gold	Designs, develops, tests, and supervises the manufacture of electrical and electronic equipment.
Architect	\$68,750	9.7%	BD, MA	gold	Plans, designs, and supervises the construction of all types of buildings, such as private homes, offices, and factories.
Civil Engineer	\$61,830	14.9%	BD, MA, DD	gold	Plans, designs, and supervises the construction and maintenance of structures and facilities such as roads, airports, sewage systems, and buildings.
Landscape Architect	\$51,620	16.0%	BD, MA	gold	Designs, plans, and manages landscapes, including parks, residential developments, campuses, gardens, cemeteries, and resorts.
Cost Estimator	\$50,090	15.0%	OJT, BD	gold	Analyzes blueprints, specifications, proposals, and other documentation to prepare time, cost, and labor estimates for products and services.
Maintenance Supervisor	\$45,650	19.6%	HS	gold	Plans, organizes, and directs activities of workers engaged in the maintenance of equipment, grounds, and buildings.
Drafter	\$44,670	7.7%	HS, AD	gold	Prepares detailed drawings of buildings, products, and machinery from sketches and specifications made by engineers, architects, and designers.
Engineering Technician	\$44,630	6.8%	AD	gold	Coordinates and oversees the activities of workers maintaining physical structures, machines, and building grounds.
Construction Manager	\$43,740	14.4%	OJT, AD, BD	gold	Works on construction projects from beginning to end, keeping schedules and budgets of the projects.
Construction and Building Inspector	\$41,460	14.0%	OJT, HS, AD	gold	Examines construction projects to ensure compliance with building codes and ordinances, zoning regulations, and contract specifications.
Electrician	\$36,720	11.9%	OJT, HS, AD	gold	Lays out, assembles, installs, maintains, and tests electrical fixtures, equipment, and wiring in electrical systems of homes, factories, and other buildings.
Interior Designer	\$35,150	9.9%	BD	gold	Develops ways to make the best use of interior space while at the same time making the space attractive.
Plumber and Pipe Fitter	\$33,390	15.9%	OJT, HS	silver	Fabricates, lays out, assembles, and repairs pipes, fittings, and fixtures of heating and water and drainage systems.
Heating and Cooling Technician	\$32,750	17.7%	OJT, HS, AD	gold	Installs, services, and repairs air-conditioning, refrigeration, and heating units in homes, schools, and commercial and industrial buildings.
Structural Metal Worker	\$32,700	20.3%	OJT, HS	silver	Manufactures and installs ornamental or structural metals used in the construction of buildings, bridges, dams, metal storage tanks, and other construction projects.
Brickmason/Stonemason	\$32,490	17.8%	OJT, HS	silver	Lays brick, stone, structural tile, marble, concrete, and other masonry materials to build walls, partitions, fireplaces, and other structures.
Glazier	\$32,300	17.3%	OJT	silver	Cuts, fits, and installs plate glass, ordinary window glass, and other glass items in structures using a variety of hand or power tools.
General Maintenance Mechanic	\$31,650	9.1%	OJT	gold	Repairs and maintains mechanical equipment and buildings and works on plumbing, electrical, and air-conditioning and heating systems.
Drywall Installer and Lather	\$31,630	17.5%	OJT, HS	silver	Attaches drywall panels to the inside frameworks of houses and buildings.
Sheet Metal Worker	\$29,180	14.7%	OJT, HS	silver	Makes, installs, and maintains air-conditioning, heating, ventilation, and pollution-control duct systems, as well as other building parts and products made from sheet metal.
Carpenter	\$29,170	13.7%	OJT, HS	silver	Uses hand and power tools to construct, erect, install, and repair structures made of wood products according to building codes.
Painter and Paperhanger	\$27,790	16.2%	OJT, HS	bronze	Applies paint, varnish, stain, enamel, or lacquer to interior or exterior surfaces, trimmings, and fixtures of buildings and other structures.
Insulation Worker	\$27,720	19.7%	OJT	silver	Covers pipes, boilers, refrigerant, cooler rooms, ceilings, and walls of buildings, homes, and equipment with insulating materials to retain either heat or cold.
Roofer	\$24,470	19.3%	OJT, HS	silver	Applies roofing paper, shingles, asphalt, rubber, thermoplastic, and gravel to roofs of homes and other buildings.
Construction Laborer	\$21,740	18.5%	OJT, HS	bronze	Assists skilled workers by unloading materials, machinery, and equipment; lifts and carries materials and tools; prepares or cleans work areas.

About This Chart

This chart is a sampling of 25 of the more than 100 occupations that fall within the Architecture and Construction sector of the South Carolina job market. For more information about any Architecture and Construction occupation, check out the South Carolina Occupational Information System (SCOIS). This electronic database is packed with valuable information on careers, colleges, scholarships, and more. SCOIS 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

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. For more information on the CRC in South Carolina go to www.WorkReadySC.org.

Getting Ahead in Architecture and Construction

Sharpen your management skills, stay in touch with new technologies and trends, and you could end up sitting on top of the Architecture and Construction heap.

Women in Construction

If you think construction is a man's world, think again. Nearly one in 10 workers in construction is a woman, and the U.S. Bureau of Labor Statistics says the number of women in construction is steadily increasing.

Though women tend to gravitate toward technical sales and administrative support positions, some also work shoulder to shoulder with men in the skilled trades and precision crafts. Of the nearly one million women in construction nationwide, more than 28% hold high-paying managerial and professional positions.



The National Association of Women in Construction (NAWIC) was created in the mid-1950s as a support network for women working in construction. Today, NAWIC works to enhance the success of women in the construction industry. Through their Education Foundation, NAWIC provides national building competitions for elementary school children, as well as K-12 programming and a CAD/Design/Drafting competition for high school students. For more information on NAWIC and the Education Foundation, visit www.nawiceducation.org/sites.



There are few professions left where you can start at the bottom and end up owning your own company, but the construction industry is one of them. With nearly a quarter of a million new job openings each year in South Carolina alone, your chances of landing that first job and beginning your climb to success are excellent. While a general laborer may only earn around \$24,000 per year, a project manager in the construction industry can make upwards of \$100,000 a year.

n Pathways to Success

Carolinas AGC (Associated General Contractors of America) reports that there are two tracks in the construction business. You can start in the field and rise to construction manager, or you can get your four-year construction manager degree and start as an assistant supervisor. Managers who take the college track still have to get on-the-job experience before they really know the ropes, and those who rise through the ranks find that a bit of classroom training can speed the process.

The National Center for Construction Education and Research (NCCER), for example, conducts week-long Project Supervision and Project Management academies in which workers can earn continuing-education units and advance toward certification as supervisors or managers. In the field of construction supervision, workers advance by degrees from construction supervisor to the professional, senior, and master level. NCCER measures progress not just through course work, but by the number of years of supervisory experience, courses, and workshops in the Project Supervision program, points gained from education, training, and evaluation of workers' supervising skills.

As the workforce ages, says NCCER president Don Whyte, positions for front-line managers and foreman supervisors will continue to open up. "There are incredible career opportunities in this industry. An assembly worker is never going to be the president of an automotive company, but through continuing education in the supervision and management aspects of the industry, a carpenter can one day run his own business."

n Track the Trends

Technical innovation has driven change ever since people left their caves and began fashioning tools from stones and bones and building shelters from wood and animal skins. To keep ahead of the learning curve and keep your career on track, you'll need to understand the trends that could affect your career.

Some developments, such as the nail gun, which speeds the pace of wood frame construction for carpenters, are relatively simple. Others take construction into the worlds of robotics and information technology. Concrete masons, for example, traditionally finished floors on their hands and knees with a trowel. "Today, they might use robotic finishers that program the size of the floor," says Whyte. "This reduces labor time but requires a new level of skill to operate the equipment."

n Cool Technologies, Smart Buildings

The Information Technology (IT) revolution is opening up entirely new careers in Architecture and Construction. Employers are seeing strong growth for technicians in electronic systems and computer wiring. Increasingly the traditional trades—electrical systems, heating and air-conditioning, even plumbing—are intersecting with the world of IT.

One brand new field allows technicians to computerize the control of heating, air-conditioning, and water heating. These new systems even turn lights on and off in the home. Five South Carolina high school career centers have signed on to offer training in the field, called Home Systems Technology. Students at the centers will be able to earn certification by the Technology Industry Association (CompTIA) in Home Technology Integrator.

Some construction workers are now applying these systems to commercial buildings. Large buildings and factories increasingly rely on automation and robotics to keep them humming. "These are control systems automated back to a computer to control mechanical, electrical, and heating/cooling systems in buildings," says Phil Wilson, head of the Mechanical Contractor Association's Workforce Committee and partner in Control Management, a firm that franchises control systems designed by Siemens.

Training in the field occurs mostly on the job. "If you have a firm grounding in basic trades such as plumbing and electrical, you can easily pick up the necessary computer skills," says Wilson, "or if you are already computer savvy, you can learn the trades. In my experience it works both ways." Once mastered, he adds, "the systems are a great toy." They let technicians take control of entire skyscrapers and take control of their futures, as well.



Master Traditional Building Arts

When Hurricane Hugo roared through Charleston in 1989, many of the city's historic treasures were severely damaged. Suddenly, the city's historic preservation community realized that master craftspeople in the traditional construction arts were in short supply. Stone carvers, plaster-brick- and stonemasons, as well as ornamental welders were just a few of the skilled craftspeople needed to restore historic structures and build new ones in the old style.

Across the nation, quality training in traditional crafts has been on the decline, which is why Charleston's American College of the Building Arts (ACBA) is dedicated to revive these dying arts.

ACBA educates and trains future generations of building artisans to foster exceptional craftsmanship and leadership and encourages the preservation, enrichment, and understanding of the world's architectural heritage.

If you find you have a knack for specialized construction work—such as architectural stone, carpentry, masonry, ornamental ironwork, or plasterwork or timber framing—ACBA may be for you. Associate's degrees are offered, as well as baccalaureate programs with post-graduate work. As with other colleges in the state, scholarships are available. For more information about ACBA, visit buildingartscollege.us.

Then Build Your Career



Academic Foundations

Successful careers in Architecture and Construction are built on solid foundations of academic basics.

- **Science:** Buildings that stand do so because they obey the laws of physics. Basic scientific knowledge underlies every successful Architecture and Construction effort.
- **Math:** From accurate measurement of the dimensions of a building to careful budgeting of an ongoing project, math is essential to the Architecture and Construction business.
- **English:** Architecture and Construction is a group enterprise that proceeds smoothly only if coordinated through precise written and oral communications.
- **Social Studies/History:** Architecture and Construction teams bring together people with widely varying backgrounds and heritages. To make a melting-pot operation work, it can help a lot if everyone understands his or her coworkers' cultures and histories.
- **Modern or Classical Language:** Language study increases people's abilities to understand people from other cultures and stimulates their abilities to communicate in their own language. Both skills can boost the performance of multicultural Architecture and Construction teams.
- **Arts:** Creativity plays a part of both Architecture and Construction careers, which is why four-year colleges and universities now require an arts credit for admission, so be sure to sign up for one in school.

Careers within Architecture and Construction offer many different options. From pursuing the traditional trades to applying the latest technologies, from working in the field to running your own company, the choices are many and exciting. It pays to know what jobs are hot and what kind of work best suits your style.

According to the the Carolinas AGC (Associated General Contractors of America), 14 million new construction workers will be needed nationally by 2015. With older workers retiring and younger workers not replacing them, skilled tradespeople such as electricians, plumbers, and stone and brickmasons will be in short supply. That means more opportunities for people such as you.

There are some 50 occupations under the broad category of construction. Carpenters make up the biggest group, with more than 10,000 in South Carolina alone. Sheet-metal workers, plumbers, electricians, brickmasons, painters, heating and cooling technicians, and others also find solid jobs with good benefits in the state.

The Home Builders Association of South Carolina reports that nearly 82,000 people work in residential construction with salaries averaging nearly \$40,000 a year. There are more people working in home construction than are working for all the manufacturers in the state.

Even when new construction slows down, there's a need to maintain existing structures. Plumbers and electricians can make good money whether they install wiring and plumbing in new buildings or repair systems that already exist.

There are nearly as many pathways to success in construction as there are jobs. Electricians, for example, generally serve apprenticeships or pursue technical training and have to receive licensure. Carpenters, masons, and many other skilled workers generally do not require a license to work in the trade. Finally, studies in business at a two- or four-year college can help workers prepare for careers in management.

In Architecture and Construction, there are three different majors to choose from:

- Construction (page 13)
- Design/Pre-Construction (page 14)
- Maintenance/Operations (page 15)



Career Major Map: Construction

Employees in Construction build and remodel houses and apartments, industrial buildings, recreational facilities, churches, and schools. These occupations include builders of highways, streets, bridges, tunnels, and airports as well as power plants, chemical plants, refineries, and mills.

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 MathfortheTechnologies1	Geometry or MathfortheTechnologies2	Algebra 2 or MathfortheTechnologies3	Pre-Calculus or MathfortheTechnologies4
Science* Four Units Required	Physical Science	Biology or Applied Biology	Chemistry or Chemistry for the Technologies	Physics or Physics for the Technologies
Social Studies Three Units Required	Global Studies 1 or 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 (Minimum of four credits required)	Complementary Course Work	Extended Learning Opportunity Options Related to Major
Introduction to Construction Carpentry Building Construction Technology Electricity Masonry Plumbing HVAC	Home Systems Technology Electronics CADD OSHA 10-hour course Metal Fabrication Modern or Classical Language	Career Mentoring Shadowing Internship Cooperative Education Senior Project SkillsUSA

Professional Opportunities Upon Graduation		
High School Diploma Carpenter Mason Electrician HVAC Mechanic Plumber Drywall Installer	Additional Training to 2-year Degree Contractor Code Official Construction Foreman General Contractor/Builder Project Manager Safety Director	4-year Degree & Higher Project Estimator Construction Engineer Design Builder Construction Manager Civil Engineer Interior Designer

*Course selection will depend on satisfying prerequisites.

Career Major Map: Design/Pre-Construction

Professionals in Design/Pre-Construction turn design concepts into sets of building plans that guide other construction workers as they continue the building process.

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 Physics for the Technologies
Social Studies Three Units Required	Global Studies 1 or 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 (Minimum of four credits required)	Complementary Course Work	Extended Learning Opportunity Options Related to Major
Introduction to Construction Carpentry Building Construction Technology Electricity Masonry Plumbing HVAC	Home Systems Technology Electronics CADD/Architectural Design OSHA 10-hour course Metal Fabrication Welding Mechatronics Integrated Technology Modern or Classical Language	Career Mentoring Shadowing Internship Cooperative Education Senior Project SkillsUSA

Professional Opportunities Upon Graduation		
High School Diploma Carpenter Mason Electrician HVAC Technician Plumber	Additional Training to 2-year Degree Contractor Code Official Construction Foreman General Contractor/Builder Project Manager Civil Engineering Technician	4-year Degree & Higher Project Estimator Construction Engineer Design Builder Construction Manager Civil Engineer Interior Designer

*Course selection will depend on satisfying prerequisites.

Career Major Map: Maintenance/Operations

Employees in Maintenance/Operations unload, inspect, and move new industrial equipment into position. They determine the best placement of machines in a plant, assemble and install machinery, and perform preventive maintenance on equipment.

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 Physics for the Technologies
Social Studies Three Units Required	Global Studies 1 or 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 (Minimum of four credits required)	Complementary Course Work	Extended Learning Opportunity Options Related to Major
Introduction to Construction Carpentry Building Construction Technology Electricity Masonry Plumbing HVAC	Home Systems Technology Electronics CADD/Architectural Design OSHA 10-hour course Metal Fabrication Welding Mechatronics Integrated Technology Modern or Classical Language	Career Mentoring Shadowing Internship Cooperative Education Senior Project SkillsUSA

Professional Opportunities Upon Graduation		
High School Diploma Carpenter Mason Electrician HVAC Technician Plumber Maintenance Technician	Additional Training to 2-year Degree Contractor Code Official Construction Foreman General Contractor/Builder Project Manager Maintenance Technician/Supervisor	4-year Degree & Higher Project Estimator Construction Engineer Design Builder Construction Manager Civil Engineer Interior Designer

*Course selection will depend on satisfying prerequisites.

Learn Your Craft On-Site

Get the practical experience now that you need for Architecture success.



Learning Construction On-the-Job

Construction workers traditionally learn their crafts on the job, often while working as apprentices. By getting involved in such work-based learning while still in high school, you can

- experience the feel of architecture and construction work firsthand,
- get a close look at the different crafts involved,
- fine-tune your plans for the future,
- make better-informed career decisions,
- create an IGP that is effective and efficient,
- earn credits toward graduation and even a paycheck while you learn on the job,
- build your career portfolio and resume, and
- get a head start on mastering an architecture and construction trade.

Architecture and Construction is a straightforward, hands-on business. You roll up your sleeves and physically rearrange an environment for the better. To master the trade, just jump right in. Training is traditionally conducted at the work site, and opportunities abound for on-the-job learning even while you're still a student in high school. Ask your guidance counselor or principal about resources in your area or information on the many associations and companies that provide work-based training. Here are just a few ways you can get started on your career in the construction industry:

n Shadow a Professional

Job shadowing lets you observe the building trades in action on a real job site. It can be a one-day introduction or a longer period visiting after school, during school breaks, or on summer vacation. National Groundhog Job Shadow Day is held each year for one day in early February. More than one million students across the country shadow professionals working in their careers of interest. You can spend the day with a field supervisor of a large construction project or watching particular craftspeople at work. This will give you an overview of the variety of skills involved in construction, from laying a foundation to applying the final coat of paint. Check with your guidance counselor, state or local unions, trade associations, and construction companies for other job-shadowing opportunities.

n Take a Summer Job

Even if you can't handle a circular saw, you could still land a summer job as a laborer in one of the skilled trades, especially since summer tends to be the busiest time for construction projects. Assistant construction laborers start on the job by doing tasks as simple as fetching tools or equipment. Physical strength, agility, and a tolerance for changes in the weather are important for some trades, but the most valuable traits are a good attitude and a strong work ethic. You might contact a local chapter of a trade association to put you in touch with a skilled tradesperson willing to mentor you after school or on the weekend. Some of the larger construction companies even have educational consultants who work with local schools to help you find an entry-level job that could lead to a career in the field.

Federal, state, and local labor laws restrict the kinds of jobs for which young adults may qualify. Restrictions exist for workers under 18 because of liability concerns, but if you are 16 or 17 years old, you and your parents or guardian may be able to cosign a waiver. After all, some aspects of construction can be challenging, even dangerous, and people under 18 are usually not allowed to handle power tools or climb on scaffolding, framework, or roofs. A desk job or internship at a construction company might give you valuable experience at the hub of the activity, or you could land a job at a lumber, plumbing, or electrical supply store, where you can meet skilled workers in all the trades.

n The Volunteer Spirit

Volunteering with a local, state, or federal service organization is a great way to get skills under your belt while helping the people in your community. Imagine the satisfaction of watching a disadvantaged family move into their very first home, one that you helped build. Habitat for Humanity International (HFHI) and some local organizations enlist volunteers for community service projects.

The mission of HFHI, a nondenominational, nonprofit Christian housing organization, is to eliminate poverty housing. Volunteers gain hands-on experience in traditional, low-cost construction techniques, such as constructing wood frames, installing vinyl siding, and attaching shingle roofs. There are nearly 40 affiliates of HFHI in South Carolina you can contact. If you are 16 years old, you may apply for the HFHI's Global Village Team and travel to other project sites in the United States and Canada. For more information, visit www.habitatcsc.org.

n Earn and Learn as an Apprentice

Apprenticeships sponsored by unions, employers, and trade associations let workers master trades on the job. Some apprentices work paying jobs during the day and attend classes at night. Others work part-time during the school year and full-time in the summer while pursuing their training. Post high-school graduation programs exist, which allow students to continue their classroom educations at two- or four-year colleges. To find apprenticeship opportunities in your area, visit the U.S. Department of Labor's Bureau of Apprenticeship and Training Web site at bat.doleta.gov.

ABC's of Financial Aid

If you're worried about finding money for your training and education in the construction industry, quit worrying and get to work. Assistance in the form of grants, loans, and scholarships is available at every step of your career and is not just for the college bound. With worker shortages looming, many construction companies not only provide on-the-job training but also pay for you to master new skills at local colleges, technical schools, or other training programs. Trade associations and unions also provide financial incentives for you to learn new skills.

You won't know if you qualify for aid unless you apply, so don't be shy about asking for help from your high school counselor or financial aid officers at the schools you would like to attend. Start your online search at www.finaid.org. The site lets you explore the basics of scholarships, grants, loans, savings plans, and tax incentives. This site also lists trade- and industry-specific scholarships, including Architecture and Construction education opportunities.

In South Carolina, the Commission on Higher Education offers assistance through a variety of

avenues, including LIFE Scholarships, the South Carolina HOPE Scholarship, and the Palmetto Fellows Scholarship. The Lottery Tuition Assistance Program for students in technical schools is administered through the state's technical college system, and the Tuition Grants Program provides need-based aid.

Over \$80 billion dollars a year in federal aid is available nationwide for students enrolled in certification programs, degree and non-degree programs, trade schools, career and technical schools, and colleges and universities. Apply online by completing the "Free Application for Federal Student Aid" (FAFSA) at www.fafsa.ed.gov, or ask your guidance counselor or college or technical school admissions officer for a hard copy of the form. Federal Work-Study funds are also available through technical schools and colleges in South Carolina. If you are planning a military career, the Reserve Officer Training Corps (ROTC) will pay you to attend school. Military veterans also qualify for college aid through the GI Bill, and vets can receive aid through On-the-Job Training (OJT) and Apprenticeship Programs (APR), as well.

Construction Organizations

Be a joiner, not a loner. Networking is not just a buzz word for the business world; it's a solid foundation for a career in Construction. Student organizations in high school and college can give you useful contacts with students with similar interests, teachers interested in your future, and working professionals. Here are two organizations that enable students to boost their careers and have fun at the same time.

- **SkillsUSA** – With a national membership totaling more than a quarter of a million high school and college students, teachers, and professional members, SkillsUSA has 13,000 chapters in the United States and the territories. SkillsUSA recognizes that technical skills are only a starting point to success. Character development, lifelong education, and pride in the dignity of work are qualities that count for students enrolled in technical and skilled training programs. SkillsUSA sponsors local, state, and national competitions designed to demonstrate technical skills in areas such as plumbing, welding, precision machining technology, carpentry, electricity, and masonry. More important, the organization helps students develop sound leadership skills, a good work ethic, and communications skills crucial to advancement within the construction industry. www.skillsusa.org, www.scskillsusa.org.

- **Technology Student Association (TSA)** – Active in 47 states nationwide, TSA is a national student organization that considers technology literacy just as important today as basic math and science skills. With more than 170,000 K–12 student members nationwide, TSA sponsors local, statewide, and national competitions for high school students in computer-aided design, construction systems, electronic research and experimentation, structural engineering, and engineering design. TSA activities include fund-raising, community service, social activities, and leadership training. South Carolina TSA's annual skills showcase lets students demonstrate skills in more than 60 events, including beginning computer-assisted design, mechanical challenge, and architectural modeling. www.tsaweb.org

Studying a Trade

Pursue the education you need after high school to make the most of your career in Architecture and Construction.



In the business it's called "taking the smart end of the tape." It means you can be the worker who simply holds the measuring tape in place or you can be the one who takes the smart end of the tape and makes all the critical calculations. Workers on the smart end of the tape get the credentials they need to advance in the business. They end up as their own bosses and leaders in successful contracting firms by taking advantage of the wealth of educational resources available in South Carolina.



College Connections



Every South Carolina two- and four-year college has a website 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.scteched.tec.sc.us
- South Carolina Independent Colleges/Universities www.scicu.org

n Industry Training

Apprenticeships sponsored by employers and trade associations let workers learn skills on the job. Some apprentices work paying jobs during the day and attend classes at night. Others work part-time during the school year and full-time in the summer while pursuing their training. Post high-school graduation programs, which allow students to continue their classroom education at two- or four-year colleges also exist.

You should also look into the Career Cluster Partnership South Carolina (CCP), a collaboration of the South Carolina Department of Education, The Mechanical Contractors Association of South Carolina and The Associated Builders and Contractors of the Carolinas. This initiative focuses on developing the next generation workforce and identifying career opportunities in South Carolina's construction industry. Check out www.ccp-sc.org to find out if the CCP can pair you up with a company that offers apprenticeships to students.

Another way to experience construction firsthand is to volunteer. An organization like Habitat for Humanity encourages people of all skill levels to contribute to the construction of homes.

n Two-Year Colleges

South Carolina boasts a network of 16 public two-year colleges with associate degree programs and courses leading to certification from the skilled trades all the way up to the management level. Heating, ventilation, and air-conditioning courses, for example, are offered at 15 of 16 colleges. MCTA and Carolinas AGC credentials earned in high school often dovetail nicely with course work at the two-year colleges.

Carolina's AGC reports that the course work and curricula in different trades may allow high school students to earn college credits even before they graduate.

n The Four-Year Route

Several of South Carolina's four-year colleges provide comprehensive preparation for high-level construction careers. South Carolina State University's School of Engineering Technology and Sciences offers several degree programs, including civil and mechanical engineering and industrial and electrical engineering. Its continuing-education program allows you to work while participating in classes part-time.

Clemson University's Department of Construction Science and Management offers a four-year degree that prepares students for leadership roles in construction. The department boasts a 95% job placement rate for graduates. Clemson also offers degrees in Architecture and Landscape Architecture.

n Training With Uncle Sam

The military offers a wealth of educational opportunities. The Navy, for example, offers an enlistment bonus for personnel who enroll in its Journeyman Program. After completing an apprenticeship, you'll be eligible for further training in the occupation you choose. The Army offers training in 33 Architecture and Construction occupations, from carpentry and masonry to supervisory positions. There's even a training track for engineering divers, who work at depths of up to 300 feet. These divers often find high-paying civilian work on offshore oil rigs. Financial resources are available to military personnel to pursue higher education courses through affiliated community and four-year degree colleges. You can learn more about military training at www.goarmy.com (Army), www.navy.com (Navy), www.airforce.com (Air Force), and www.marines.com (Marines), and www.uscg.mil (Coast Guard).

10 Highest-Paying Architecture and Construction Professions

Occupation	Salary
1. Architect	\$68,750
2. Civil Engineer	\$61,830
3. Landscape Architect	\$51,620
4. Cost Estimator	\$50,090
5. Maintenance Supervisor	\$45,650
6. Drafter	\$44,670
7. Construction Manager	\$43,740
8. Construction and Building Inspector	\$41,460
9. Surveyor and Cartographer	\$40,180
10. Electrician	\$36,720

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

10 Fastest-Growing Architecture and Construction Professions

Occupation	Job Growth
1. Structural Metal Worker	20.3%
2. Tile Setter	20.1%
3. Insulation Worker	19.7%
4. Maintenance Supervisor	19.6%
5. Roofer	19.3%
6. Plasterer	19.0%
7. Construction Laborer	18.5%
8. Brickmason/Stonemason	17.8%
9. Energy Conservation and Use Technician	17.7%
10. Heating and Cooling Technician	17.7%

Based on expected growth in percentage of jobs available between 2001 and 2008 in South Carolina. Source: SCOIS



Core Requirements for Graduation

High School Graduation

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

* Must pass the exit examination.

State Certificate

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

* Must have failed to meet the standard on all subtests of the exit examination.

College Entrance

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



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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:

Architecture and Construction Web Sites

- National Center for Construction Education and Research (NCCER), www.nccer.org
- American Institute of Architects, www.aia.org
- Associated Builders and Contractors, www.abc.org
- Carolinas AGC (Associated General Contractors of America), www.cagc.org
- ConstructionEducation.com, www.constructioneducation.com
- Habitat for Humanity International, www.habitat.org
- Home Builders Association of South Carolina, www.hbaofsc.com
- Maintenance and Construction Technology Alliance (MCTA), www.mctasc.com
- Mechanical Contractors Association of America, www.mcaa.org
- National Association of Women in Construction (NAWIC) Education Foundation, www.nawiceducation.org/sites

Search the Internet for other professional organizations related to Architecture and Construction careers.

Education and Career Planning Web Sites

Inside South Carolina

- Career Guidance Model, www.careerguidancemodel.org
- South Carolina Chamber of Commerce, www.scschamber.net
- South Carolina Commission on Higher Education, www.che400.state.sc.us
- South Carolina Employment Security Commission, www.sces.org
- South Carolina Higher Education Tuition Grants Commission, www.sctuitiongrants.com
- South Carolina Independent Colleges and Universities, www.scicu.org
- South Carolina Occupational Information System, www.scois.net
- South Carolina Public Colleges and Universities, www.state.sc.us/edu/univcoll.html
- South Carolina Technical College System, www.sctechsystem.com
- South Carolina SkillsUSA, www.scskillsusa.org
- WorkKeys, www.workreadysc.org

Outside South Carolina

- America's Career Resource Network Association, www.acrna.net
- Career Communications, Inc., www.carcom.com
- Armed Services Vocational Aptitude Battery (ASVAB), www.todaysmilitary.com/app/tm/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.com
- Holland's Self-Directed Search, www.self-directed-search.com
- Kuder, www.sc.kuder.com
- Mapping Your Future, www.mapping-your-future.org
- National Career Development Association, www.ncda.org
- O*NET Online, online.onetcenter.org
- Occupational Outlook Handbook, www.bls.gov/oco
- The Princeton Review, www.review.com
- Salary Information, www.salary.com

* Web site addresses were correct at time of publication but may have changed. If an address is no longer valid, please use an Internet search engine to locate the resource.

Note: Local South Carolina schools and districts may choose to use fewer career clusters, clusters that are organized differently, or clusters with alternative names.

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Find more information on education and careers in the Architecture and Construction industry.



Career Guidance Information Sources

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

SCOIS (South Carolina Occupational Information System)—www.scois.net. An electronic database of information about careers, salaries, job requirements, educational options, scholarships, and more.

O*NET (Occupational Information Network)—online.onetcenter.org. A national occupational information database that helps students make informed decisions about education, training, career choices, and work.

COIN (Coin Career Guidance System)—community.coin3.com. A comprehensive software program with career and college planning information, especially for South Carolina students.

WorkKeys—www.workreadysc.org. A comprehensive resource for information about the South Carolina Career Readiness Certificate – how and where to qualify, as well as its value to students and the community.

Kuder—sc.kuder.com. A comprehensive online college and career planning system with links to government and educational information and organizations.



Knowledge. Pass it on.

Education: It's the passing of knowledge, skills, and values from one generation to the next. So where will the next generation learn their ABCs? Or how to design sustainable buildings? Or to master foreign languages, like Spanish and Mandarin Chinese, so they can compete in a global economy? They learn from educators — people with knowledge and experience in every walk of life who make the time to share their knowledge. They learn from people like you.

Learn more at: www.cerra.org.



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