

WELDING

Strom Thurmond Career and Technology Center

What is Welding?

Welding is the joining of two or more metal pieces or parts forming a bond. The bond is formed by heating the two surfaces to the point of melting using either gas or electricity, and adding filler electrode, applying pressure, and hammering.

Program Details

The Welding Technology Program at the Career Center is a three year program consisting of three courses.

Welding 1

Welding 2

Welding 3/4



Level 1 & 2 students will learn to join metal using Shielded Metal Arc Welding (SMAW), and Gas Metal Arc Welding (GMAW).

Level 3/4 students will gain advanced knowledge of SMAW, GMAW, and GTAW. Students will learn the Fluxed Cored Arc Welding (FCAW) process, detailed print reading, welding symbols, and how to read prints to build the correct project.



JOBS IN WELDING

- Construction
- Underwater
- Nuclear
- Fabrication
- Pipe Line
- Welding Inspector

- Railroad
- Orbital
- Laser
- Military
- Equipment Sales
- Instructor

99%

STUDENTS
OSHA-10
CERTIFIED



\$52K

FABRICATION

\$73K

MAINTENANCE

WELDING SALARIES BASED ON
PER HOURLY WAGES UP TO
\$35/HOUR

52%

OF STUDENTS
GO ON
COLLEGE
AFTER
LEAVING NCCC



\$70K

AVERAGE
SALARY FOR
OFFSHORE
UNDERWATER
WELDER

SENIOR PROJECTS

Students will have the opportunity to build a senior project. Past projects include grills, gates, trailers, yard art, deer stands, dog boxes, four wheeler racks and hunting accessories.



FOR ADDITIONAL INFORMATION
CONTACT STCTC AT (803) 275-1767

BUILDING CONSTRUCTION

Strom Thurmond Career and Technology Center

The Construction Industry

The construction sector is primarily engaged in the construction of buildings or engineering projects (e.g., residential houses), the preparation of sites for new construction and in subdividing land for sale as building sites. Construction work done may include new work, additions, alterations, or maintenance and repairs.

Program Details

The Building Construction Program at the Career Center is a three year program consisting of 3 courses.

Building Construction 1

Building Construction 2

Building Construction 3/4



Levels 1 & 2 offer a comprehensive construction education. Through hands-on projects both on campus and in the community, these courses prepare individuals to apply technical knowledge and skills in the building, inspecting, and maintaining of structures and related properties. Students will have instruction in masonry, carpentry, electrical, and other construction-related applications.

Level 3/4 provides a more rigorous approach to the information provided in Level 1. Students will enhance their knowledge of masonry, carpentry, electrical, finishing, management, inspection, and other construction-related applications.

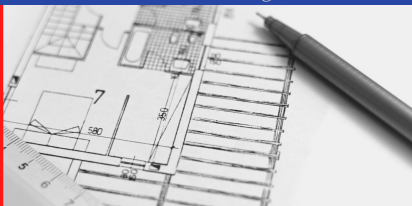


JOBS IN BUILDING CONSTRUCTION

- Contractor
- Carpenter
- Remodeling Specialist
- Dry Waller
- Electrician
- Plumber
- Brick Mason
- Finish Carpenter
- Roofer

Salary and career information from BeProudBeProSCorg.

100% OF COMPLETERS ARE OSHA-10 CERTIFIED



12.44% CONSTRUCTION

GROWTH IN PROJECTED JOBS
IN SOUTH CAROLINA FROM
2018 TO 2028

\$34K MEDIAN ANNUAL WAGES FOR CONSTRUCTION LABORERS



\$47K MEDIAN ANNUAL WAGES FOR CARPENTER



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AGRICULTURE

Strom Thurmond Career and Technology Center

What is Agriculture?

Agriculture is the basis of all civilization. It is part of everything from the food we eat to the clothing we wear. Agriculture shapes many of the traditions and values that this country was built on. Agriculture is the science, art, and occupation of producing crops, raising livestock, and cultivating the soil.

Program Details

The Agriculture Program at the Career Center is a three year program. There are 2 pathways - Horticulture & Ag Mechanics

Agricultural Science & Technology

The Agriculture class explores the essential concepts related to plant and animal life.



Agricultural Mechanics

Classes

Agricultural Mechanics
Ag Mech for the
Workplace
Equipment Operations

Horticulture

Classes

***Intro to Horticulture**
***Nursery, Greenhouse,**
Garden Center
Management
***Hort. for the Workplace**



CAREERS IN AGRICULTURE

- Agriculture Engineer
- Animal Geneticist
- Aquaculturalist
- Meat Graders
- Animal Nutritionist
- Plant Breeder/Geneticist
- Soil & Water Conservationist
- Tree Surgeon
- Veterinarian
- Veterinary Assistants
- Forest Technicians
- Forest Ranger
- Solid Waste Technician
- Education and Extension Specialist
- Commercial Fisherman
- Ecologist
- Pollution Prevention and Control Manager
- Health & Safety Inspector
- Water Quality Inspector
- Pulp and Paper Manager
- Toxicologist
- HAZMAT Handler
- Fish and Game Officer
- Fisheries Technician
- Water Monitoring Tech

\$4M+

WAGES
EARNED
THROUGH
SUPERVISED
AGRICULTURE
EXPERIENCES
(SAE'S) IN SC



15.96%

JOB GROWTH IN PROJECTED
IN LANDSCAPE ARCHITECT
JOBS IN SOUTH CAROLINA



\$80K

ANNUAL WAGES
FOR A
VETERINARIAN



\$42K

AVERAGE SALARY
FOR A SOUTH
CAROLINA FISH
AND GAME
WARDEN



Salary and career information from Clemson Cooperative Extension.



FFA (Future Farmers of America) is an intracurricular student organization for those interested in agriculture and leadership. It is not just for students who want to be production farmers; FFA also welcomes members who aspire to careers as teachers, doctors, scientists, business owners and more. FFA continues to help its members to develop their own unique talents and explore their interests in a broad range of agricultural career pathways.

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AUTOMOTIVE TECHNOLOGY

**Strom Thurmond Career and
Technology Center**

What do Auto Mechanics do?

Automotive service technicians and mechanics inspect, maintain, and repair cars and light trucks.

Program Details

The Automotive Technology Program at the Career Center is a three year program consisting of 3 courses.

Automotive Technology 1

Automotive Technology 2

Automotive Technology 3/4

**Must be in 10th grade to enroll in Level 1*



Levels 1 & 2

Basic skills and technical knowledge of automobiles will be acquired by working on training vehicles. The automotive lab is equipped with some of the most up-to-date diagnostic and repair equipment designed for today's automobiles. Students will learn how to operate this equipment and apply it to vehicle repairs.

Level 3/4

Students will expand knowledge gained in Levels 1 and 2 and venture into the more technical aspects of today's automobiles. Vehicle performance, diagnosis and repair will be the main topic for this course.



JOBS IN AUTOMOTIVE TECHNOLOGY

- Instructor
- Technician
- Service Manager
- Parts Manager
- Independent Shop Owner
- Technician in the Military
- Air Craft Technician
- NASCAR Team Member
- Drag Racing
- Engine Builder
- Custom Car Builder
- Motorcycle Technician
- Small Engine Repair
- Diesel Technician

100%

OF COMPLETERS
PASS ONE OR
MORE ASE
ENTRY LEVEL
CERTIFICATION
TEST



7%

AUTOMOTIVE
SERVICE
TECHNICIANS

GROWTH IN PROJECTED
JOBS IN THE NEXT 10 YEARS



\$35K

MEDIAN ANNUAL
WAGES FOR
AUTOMOTIVE
SERVICE
TECHNICIAN



\$48K

MEDIAN
ANNUAL
WAGES FOR
DIESEL
SERVICE
TECHNICIAN



AUTOMOTIVE SERVICE EXCELLENCE (ASE)



Entry-Level
Certification Program

Students have the opportunity to earn entry-level certification through the National Institute for ASE. ASE Entry-Level certification is the first step in building a career as an automotive service professional.

visit ase.org for career information from the Bureau of Labor Statistics

FOR ADDITIONAL INFORMATION
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VIRTUAL GAMING

Strom Thurmond Career and Technology Center

Learn through Virtual Training Classes

Career Exploration

Discover a pathway to different career options. The Career Exploration hands-on simulations showcase different career paths that allow students and job seekers to understand their career options, experience what it's like to work in different careers, and ultimately get on a path to a well-paying job.



The Virtual Training's hands-on simulations teach necessary skills that allow job seekers to master employment skills and get on a path to a well-paying job.

Virtual Training Opportunities:

- Manufacturing and Construction
- Hospitality & Tourism
- Automotive
- Diesel Technology
- Aviation Maintenance
- Electrical Construction
- Health Care Professionals



SPORTS MEDICINE

Strom Thurmond Career & Technology Center

Program Details

The Sports Medicine Program at the Career Center is a three year program. Students can begin the sports medicine program in the 10th grade.

Sports Medicine 1

Sports Medicine 1 emphasizes the prevention of athletic injuries, including the components of exercise science, anatomy, principles of safety, first aid, CPR, and vital signs. Subject matter also includes legal issues, members of the sports medicine team, nutrition, protective sports equipment, environmental safety issues, taping and wrapping, mechanisms of injury, and application of other sports medicine concepts. A set number of Work-based learning hours are required.



Sports Medicine 2

Sports Medicine 2 emphasizes the assessment and rehabilitation of athletic injuries. Subject matter will include discussion of specific conditions and injuries that may be experienced by individuals participating in athletic activities. In addition, the use of appropriate therapeutic modalities and exercise in the care and rehabilitation of injuries will be examined.

Sports Medicine 3

Sports Medicine 3 emphasizes the student's ability to apply concepts from previous sports medicine course work to real-world situations and scenarios. Students will develop policies, procedures, and guidelines based on these aspects, as well as, explore detailed treatment and rehabilitation procedures for common athletic injuries.



CAREERS IN SPORTS MEDICINE

- Physician or Surgeon
- Behavior Analyst
- Public Health worker
- Nurse
- Nursing Assistant
- Dentist
- Scientist
- Hospital Administrator
- Health Unit Coordinator
- Hearing aid specialist
- Health educator
- Mental Health Counselor
- Patient Care Advocate
- Pharmacy Sales Rep.
- Physical Therapist
- Occupational therapist
- Registered Diagnostic Medical Sonographer
- Registered Radiologic Technologist
- Research Assistant
- Registered Dietitian

2.4M

NEW JOBS IN
THE NEXT 10
YEARS.
FASTEST
GROWING
OCCUPATION
IN THE U.S.



15%

PROJECTED JOB
GROWTH OVER
THE NEXT 10
YEARS



11%

OF ALL JOBS IN
THE UNITED
STATES ARE IN
THE
HEALTHCARE
SECTOR



\$63K

AVERAGE SALARY
FOR A SOUTH
CAROLINA
HEALTH CARE
WORKER



U.S. Bureau of Labor Statistics

Our Sports Medicine program allows students an opportunity to complete service hours during sporting events with a certified Athletic Trainer.

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ENGINEERING

Strom Thurmond Career & Technology Center

What is engineering?

Engineering is the application of science and math to solve problems. Engineers figure out how things work and find practical uses for scientific discoveries. Scientists and inventors often get the credit for innovations that advance the human condition, but it is engineers who are instrumental in making those innovations available to the world.

Livescience.com

Program Details

The Engineering Program at the Career Center is a 3 year program consisting of 4 courses.

Introduction to Engineering Design
Principles of Engineering
Aerospace Engineering
Civil Engineering and Architecture



Introduction to Engineering Design

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects like designing a new toy or improving an existing product.

Principles of Engineering

Students explore a broad range of engineering topics including mechanisms, strength of structure and materials, and automation. Then they apply what they know to take on challenges like designing a self-powered car.

Aerospace Engineering

Students explore the physics of flight and bring what they are learning to life through hands-on projects like designing a glider and creating a program for an autonomous space rover.

Civil Engineering and Architecture

Students learn important aspects of building and site design and development and then they apply what they know to design commercial building.

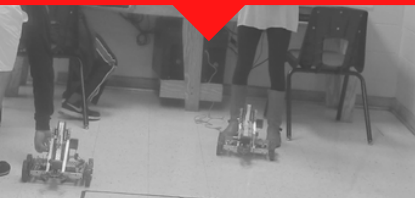


JOBS IN ENGINEERING

- Aerospace Engineer
- Agriculture Engineer
- Biosystems Engineer
- Biomedical Engineer
- Chemical Engineer
- Civil Engineer
- Computer Engineer
- Electrical Engineer
- Environmental Engineer
- Industrial Engineer
- Industrial Engineer
- Manufacturing Engineer
- Materials Science
- Mechanical Engineer
- Health and Safety Engineer
- Nuclear Engineer
- Petroleum Engineer
- Mining and Geological Engineer

\$87K

AVERAGE
SALARY FOR
CIVIL
ENGINEERS



10%

INDUSTRIAL
ENGINEER

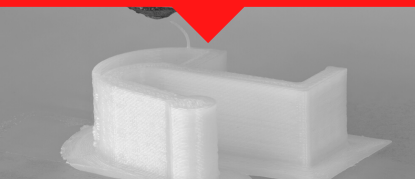
5%

BIOMEDICAL
ENGINEER

PERCENTAGE PROJECTED JOB
GROWTH RATE OVER THE
NEXT 10 YEARS

\$88k

AVERAGE
SALARY FOR
INDUSTRIAL
ENGINEERS



\$137K

AVERAGE
SALARY FOR
PETROLEUM
ENGINEERS

Salary and career information from the U.S. Bureau of Labor Statistics.

Project Lead the Way (PLTW)
PLTW's PreK-12 engineering pathway
empowers students to become
confident, independent learners through
scaffolded, hands-on activities,
projects, and problems.



PROJECT LEAD THE WAY

PLTW

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HEALTH SCIENCE

Strom Thurmond Career & Technology Center

Program Details

The Health Science Program at the Career Center is a three year program. Students can begin the health science program in the 10th grade.

Health Science 1 & 2

The Health Science program is offered to students interested in health care. During these courses, students are introduced to careers, law & ethics, cultural diversity, health care language & math, infection control, the organization of health care facilities, health care insurance, patient care skills, medical terminology, and pharmacology. These courses provide a foundation for further advancement in Health Science.



Health Science Clinical Studies

The foundational standards incorporate anatomy and physiology, diseases, therapies and care rehabilitation, prevention, legal standards, ethical and safety practices, advanced technical skills, and information technology applications. Students will have hands-on experiences for expanded knowledge and skills development.

This will occur through job shadowing and clinical rotation. At the end of the school year you will have met the requirements to take the NHA Certified Patient Care Technician Exam.

NHA Patient Care Technician Certification

PCT's are medical professionals who provide daily care for patients. Under the supervision of a registered nurse, they assist with taking vital signs, helping to move patients around the clinic and more.



CAREERS IN HEALTH SCIENCE

- Physician or Surgeon
- Behavior Analyst
- Public Health worker
- Nurse
- Nursing Assistant
- Dentist
- Scientist
- Hospital Administrator
- Health Unit Coordinator
- Hearing aid specialist
- Health educator
- Mental Health Counselor
- Patient Care Advocate
- Pharmacy Sales Rep.
- Physical Therapist
- Occupational therapist
- Registered Diagnostic Medical Sonographer
- Registered Radiologic Technologist
- Research Assistant
- Registered Dietitian

2.4M

NEW JOBS IN
THE NEXT 10
YEARS.
FASTEST
GROWING
OCCUPATION
IN THE U.S.



15%

PROJECTED JOB
GROWTH OVER
THE NEXT 10
YEARS



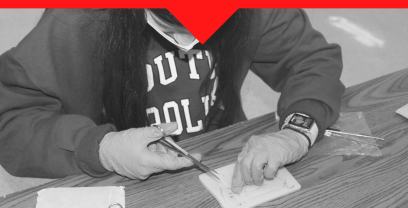
11%

OF ALL JOBS IN
THE UNITED
STATES ARE IN
THE
HEALTHCARE
SECTOR



\$63K

AVERAGE SALARY
FOR A SOUTH
CAROLINA
HEALTH CARE
WORKER



U.S. Bureau of Labor Statistics



Student organization for future health professionals which provides opportunities for students to develop, practice, and refine their technical, leadership, and team skills to achieve a seamless transition from education to a health profession.

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COSMETOLOGY

Strom Thurmond Career & Technology Center

The Cosmetology Industry

Cosmetology is simply a blanket term for the study of any and all aesthetic and beauty fields. Cosmetology careers specialize in areas such as hair, nails, makeup or skincare. Some of these fields can be combined or further specialized. Essentially, cosmetology refers to the study of beauty and appearance

Minnesota School of Cosmetology

Program Details

Participating in the Cosmetology Program at the Career Center is a three year commitment beginning in the 10th grade.

Students will take 5 courses totaling 9 units.

Intro to Cosmetology

Level 1 = Cosmetology 1 & 2

Level 2 = Cosmetology 3 & 4



Cosmetology Level 1 is a unique and innovative course, teaching the latest technology in trichology, salon business, infection control, and intro to nails. The course includes both classroom and salon instruction in all phases of beauty culture. Students will learn to cut and style hair, perform a chemical texture service, color hair to meet the client's expectations, and add in hair additives.

Level 2 builds on the previous year's courses. It includes both classroom and salon instruction in all phases of the beauty industry. Students will learn anatomy, dermatology, facial treatments, and nail enhancement. Students will provide services to handicapped individuals, retirement home residents and clients in the community. At the end of Level 2, students will take the SC Board of Cosmetology Exam.



CAREERS IN COSMETOLOGY

- Hairstylist
- Nail technician
- Salon or spa manager
- Wedding and event stylist
- Barber
- Beautician
- Makeup artist
- Esthetician

50

ALL 50 STATES
REQUIRE A
LICENSE TO
PRACTICE
COSMETOLOGY



13%

GROWTH IN
PROJECTED
JOBS IN THE
NEXT 10 YEARS



\$382B

ESTIMATED
ANNUAL WORTH
OF THE
COSMETOLOGY
INDUSTRY



\$18

AVERAGE
HOURLY
PAY

SC Board of Cosmetology Exam

Individuals interested in becoming a Cosmetologist or cosmetology-related professional by examination are required to take and pass a two-part examination for licensure in South Carolina (theory and practical).



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BUSINESS & INFORMATION TECHNOLOGY

Strom Thurmond Career & Technology Center

Department Details

The Business and Information Technology Department has 4 majors with more than 12 courses. Students must take the required courses plus two additional courses in order to be a completer in the major. Majors are listed below:



General Management

- Accounting 1
- Entrepreneurship

Business Information Management

- Digital Publication Design
- Image Editing

Marketing Communications

- Advertising
- Marketing
- Digital Media Marketing

Finance

- Accounting I
- Accounting II



ADDITIONAL COURSES

- Fundamentals of Computing
- Personal Finance
- Fundamentals of Business, Marketing, and Finance
- Studio Flash Photography (Work-Based Learning)

CAREERS IN BUSINESS

Marketing

- Admissions Representative
- Brand/Product Manager
- Event/Meeting Planner
- Fundraiser
- Marketing Assistant
- Market Research Analyst
- Media Planner
- Public Relations Representative
- Communications Manager
- Human Resource Specialist
- Journalist
- Sales

Information Technology (IT)

- Software Developers
- IT Consultant
- Computer Forensic Analyst
- IT Business Analyst
- Computer Network Architect
- Information Security Analyst
- Computer & Information Research Scientist
- Web Developer
- Database Administrator
- Computer Support Specialist
- Computer Systems Analyst
- Game Designer

Management & Administration

- Chief Executive Officer
- Entrepreneur
- Controller
- Adjuster
- Budget or Systems Analyst
- Human Resources Manager
- Training & Development Specialist
- Executive Assistant
- Wholesale or Retail Buyer
- Retail Salesperson
- Meeting & Convention Planner
- Bookkeeper
- Office Manager
- Receptionist

Accounting

- Vice President, Finance
- Chief Financial Officer (CFO)
- International Tax Manager
- Finance Director
- Corporate Controller
- Cost Accountant Manager
- Senior Financial Analyst
- Compliance Officer

8%

PROJECTED
GROWTH IN
WEB PAGE
DESIGN JOBS IN
THE NEXT 10
YEARS



\$71K

ACCOUNTANT

\$72K

SOFTWARE
DEVELOPER

AVERAGE SALARY

26%

PROJECTED
GROWTH IN
MARKET
RESEARCH
JOBS IN THE
NEXT 10 YEARS



\$50K

AVERAGE SALARY
FOR MEETING,
CONVENTION,
AND EVENT
PLANNERS

Salary and career information from U.S. Bureau of Labor Statistics

"Success usually comes to those who are too busy to be looking for it." – Henry David Thoreau

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