

tech

South Tech provides juniors and seniors with real-world experiences, real-world skills, and engaging, hands-on learning to prepare them for college and careers. We celebrate the pursuit of their passion and help them find the right pathway to their own success. Our partial-day schedules keep students engaged in their home high school academics and activities while they enjoy experimental learning in Tech's elective courses.

Our tuition-free, career and technical education (CTE) majors allow students to explore their career interests before graduation while earning industry certifications, college and high school credits, and skills that will last a lifetime. We work with an impressive list of business and industry partners that provide our students with mentorship, internships, apprenticeships, part-time employment, scholarships, and full-time employment offers after high school. Our students are in demand.

Students planning to attend Tech in the fall of their junior year can begin applying as early as the beginning of their sophomore year. Students are strongly encouraged to apply as soon as they have decided they want to attend Tech as space is limited. Click [HERE](#) for a video of South Tech.

More information and the application can be found at: www.southtechnical.org

South Tech Program Descriptions

AUTO COLLISION REPAIR

This program focuses on the repair and appearance of the interior and exterior of vehicles. Students learn how to assess, estimate, and repair using modern welding, sanding, masking and painting techniques using the same advanced equipment found in professional auto collision repair companies.

COLLEGE CREDIT OFFERED: Ranken Technical College & State Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: Automobile Service Excellence (ASE) Student Certification in Nonstructural/Paint & Refinishing ~ S/P2 Safety Certification

AUTOMOTIVE TECHNOLOGY

This program is driven by the 4 main systems of vehicle operation: brakes, suspension and steering, engine performance, and electrical/electronics, students will diagnose, service, and repair a wide range of vehicles alongside their ASE certified Master Technician instructor. The classroom includes training in the use of modern diagnostic equipment in preparation for multiple ASE certifications.

COLLEGE CREDIT OFFERED: Ranken Technical College & State Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: Automobile Service Excellence (ASE) Student Certification in Brakes, Electrical, Engine Performance, Suspension ~ S/P2 Safety Certification ~ Snap-On Certification

CARPENTRY (Seniors Only)

Students will build a skill set that includes framing, estimating, roofing, and interior finishing and learn how to read and interpret blueprints. They will build structures using a wide range of professional power tools and carpentry materials while earning apprenticeship and college credit.

COLLEGE CREDIT OFFERED: Carpenter's Joint Apprenticeship Training Program, Students who successfully complete the Career Connections Level 3 certifications will obtain two units of elective credit ~ Ranken Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: Occupational Safety and Health Administration (OSHA)-10-hour Construction Industry Certification ~ CPR

CISCO NETWORKING ACADEMY

This academy is an honors course in which students learn how to design, install and troubleshoot complex computer networks. Students will navigate a variety of projects as they complete Cisco's online curriculum in preparation for their certification exams.

COLLEGE CREDIT OFFERED: St. Louis Community College, 10 credits ~ St. Charles Community College, 25 credits ~ Jefferson College, 5 credits ~ Ranken & State Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: CompTIA A+ Certification ~ Cisco Certified Network Associate (CCNA) Certification ~ Cisco Student Certification

CONSTRUCTION INNOVATIONS

Students customize a year or semester of construction exploration to match their interests by choosing from a variety of quarter long courses which offer a solid foundation of basic knowledge and experience. Upon completion of the course, students can continue into an Advanced Construction course senior year.

CERTIFICATIONS OFFERED: Home Builders Institute (HBI) - Pre-Apprenticeship Training Core Certification ~ Occupational Safety and Health Administration (OSHA) - 10-hour Construction Industry Certification ~ CPR

CONSTRUCTION TRADES (Seniors Only)

Students build a skill set that includes framing, estimating, roofing, and interior finishing, learn how to read and interpret blueprints and build structures using a wide range of professional power tools and carpentry materials, and hone employability skills through study of the PACT curriculum.

COLLEGE CREDIT: Ranken Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: Occupational Safety and Health Administration (OSHA) – 10-hour Construction Industry Certification ~ CPR

COSMETOLOGY

This is an exclusive high school program offering the same curriculum as a beauty college without tuition costs. All aspects of cosmetology including all hair, nail, and skincare services are included. Students learn in a full-service salon along with classroom instruction from licensed Cosmetologists. By graduation, students will have had the opportunity to earn all the hours required to take their Missouri State Board certification exam to become a licensed cosmetologist.

CERTIFICATIONS OFFERED: Cosmetology Missouri State Board of Certification ~ Barbicide Certification

CULINARY ARTS

The Culinary Arts program is taught in a modern, fully equipped, restaurant style kitchen as required by the American Culinary Federation for certification. Students plan, prepare, and cater meals alongside professional chefs in both the classroom, compete at various competitions throughout the year, and participate in exclusive mentorship and shadowing programs with some of our region's most recognized culinary leaders.

COLLEGE CREDIT OFFERED: St. Louis Community College, 10 credits ~ Sullivan University, 3 credits ~ Johnson and Wales University, 13.5 quarter hours ~ Robert Morris University, 9 quarter hours ~ Southwestern Illinois College, 8 credits

CERTIFICATION OFFERED: American Culinary Federation Certification ~ ServSafe Certification

DENTAL SCIENCES

Students are immersed into clinical experience in both the classroom and through internships available during the senior year. Our modern operatory includes real world tools and equipment which allow students to conduct mock exams and perform X-rays, preventative and restorative practices and emergency care.

COLLEGE CREDIT OFFERED: Missouri Baptist University, Dual Credit, 8 credits ~ Additional opportunities through State Technical College

CERTIFICATIONS OFFERED: The DANB's (Dental Assisting National Board) Missouri Test of Basic Dental Assisting Skills (MBDA), ~ Permit to Assist the Administration of and Monitor Nitrous Oxide Analgesia ~ CPR Certification ~ OSHA Healthcare Certification

DESIGN & ENTREPRENEURSHIP

This engaging program provides students the opportunity to learn the fundamental skills of three dimensional design using cutting edge design software, hands-on building of prototypes of their designs in our State of the Art MAKES lab, and the concepts of design thinking. Throughout the program students will meet entrepreneurs, network with industry professionals and collaborate with their peers to solve real world problems.

CERTIFICATIONS OFFERED: Occupational Safety and Health Administration (OSHA)-10-hour Certification ~ S/P2 Safety Certification ~ Certiport

EARLY CHILDHOOD EDUCATION

Students become teachers in our certified preschools as they research, create, and implement lesson plans while learning effective preschool teaching techniques. Upon graduation, students will have a portfolio of work to present to colleges and/or employers along with early childhood certifications.

COLLEGE CREDIT OFFERED: St. Louis Community College, 6 credits

CERTIFICATIONS OFFERED: American Association of Family & Consumer Sciences (AAFCS)-Early Childhood Certification ~ CPR and First Aid Certifications ~ ServSafe Food Handler Certification

ELECTRICAL TRADES (Seniors Only)

Students will learn how to design, stage, and install commercial and residential electrical wiring for power and telecommunications systems. Skills taught include blueprint interpretation, layout design, and programming equipment and an emphasis on logical thinking.

APPRENTICESHIP CREDIT OFFERED: American Trade School, 12 quarter hours ~ Ranken Technical College and State Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: Occupational Safety and Health Administration (OSHA) – 10-hour Construction Industry ~ CPR

ELECTRONICS & ROBOTICS

Exploring the complex electrical, electronic, mechanical, and robotic components used in manufacturing and industry is the goal of this course. Students will also design and program robots for the annual FIRST Robotics Competition using modern equipment and techniques.

COLLEGE CREDIT OFFERED: St. Louis Community College, 4 credits

CERTIFICATIONS OFFERED: International Society of Certified Electronics Technicians (ISCET)-4 certifications in DC Electronics, AC Electronics, Semiconductor, Digital Electronics

FIREFIGHTING & EMT

Our Firefighting and Emergency Medical Technician major is an academy level course that immerses students into academy level training. Using a wide range of firefighting and life-saving medical diagnostic equipment, students develop their skills through real world emergency scenarios and field experiences.

COLLEGE CREDIT OFFERED: St. Louis Community College, 10 credits ~ Southwestern Illinois College, 6 credits

CERTIFICATIONS OFFERED: Fire I and Fire II certifications ~ Emergency Medical Technician Basic certification through National Registry ~ National First Responder certification ~ Hazardous Materials Awareness and Operations certification

FLOOR LAYERS MIDDLE APPRENTICESHIP (Seniors Only)

Students begin their post-secondary training while in high school in this exclusive apprenticeship. While learning to install hardwood, vinyl, carpet, and ceramic flooring students earn credit that can also lead to an associate's degree shortly after high school graduation. Paid summer internships with licensed contractors are also available.

COLLEGE CREDIT OFFERED: U.S. Department of Labor Journey Level Certificate-Students completing the program will be able to articulate this certificate into college credit with Ivy Tech Community College of Indiana. With an additional 15 hours/5 courses, the student will earn an Associate Degree in Applied Science

CERTIFICATIONS OFFERED: Occupational Safety and Health Administration (OSHA) - 10-hour Construction Industry Certification ~ CPR

GRAPHIC DESIGN

A students' passion for art is channeled into advertising and marketing projects using the full Adobe Suite of design software. Through advanced tutorials combined with a study of fonts, color theory, sketching and drawing, students produce a professional portfolio of their work to share with prospective colleges and employers upon graduation.

COLLEGE CREDIT OFFERED: St. Louis Community College, 3 credits

CERTIFICATIONS OFFERED: Adobe Certifications in Illustrator, In Design, and Photoshop

HEALTH SCIENCES

This course fully immerses students into healthcare through lab and patient care experiences, college-level academic coursework in anatomy and physiology, and clinical rotations at area hospitals and assisted living facilities.

COLLEGE CREDIT OFFERED: St. Louis Community College, 4 credits ~ Missouri Baptist University, Dual Credit, 8 credits ~ State Technical College-college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: Certified Nursing Assistant (CNA)-State of Missouri certification ~ Occupational Safety Health Administration (OSHA)-10-hour General Industry-Healthcare Certification ~ CPR and First Aid Certifications

HEATING, VENTILATION & AIR CONDITIONING (Seniors Only)

Students learn how to design, install, repair, and maintain residential and commercial refrigeration, heating, and air conditioning systems. Blueprint reading, electrical schematics, and operational sequencing charts are taught in preparation for certification exams. *COLLEGE*

CREDIT OFFERED: American Trade School, 12 hours ~ Ranken Technical College and State Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: Occupational Safety and Health Administration (OSHA)-10-hour Construction Industry Certification ~ Environmental Protection Agency (EPA)-608, Refrigeration Handling Certification

LAW ENFORCEMENT

Police Academy training is conducted through an array of training exercises, crime scenarios, self-defense, and fitness training. Students will learn conflict mediation and resolution, investigation techniques, and be trained in the use of advanced security related training equipment, including vehicles.

COLLEGE CREDIT OFFERED: St. Louis Community College, 6 credits

CERTIFICATIONS: Missouri Law Enforcement Skills and Knowledge (MOLESK) Certification ~ International Academies of Emergency Dispatch Emergency Telecommunicator Certification ~ 911 Dispatch ~ CPR

PHARMACY SCIENCES

Using the same advanced equipment as industry professionals, students test and research drug treatments and interactions. Students also learn the skills required for multiple careers in this pathway, including those needed in retail, hospital, and medical center pharmacies.

COLLEGE CREDIT: Missouri Baptist University, Dual Credit, 4 to 8 Credits

CERTIFICATIONS OFFERED: PassAssured ~ Missouri Pharmacy Technician License ~ OSHA 10-hour ~ CPR

PRECISION MACHINING

Students invent, design and manufacture tools and components for a wide range of production while learning how to use advanced computer controlled technology, 3D printing, and traditional machining skills. Project based learning includes training in MasterCAM and Computer Aided Design (CAD) software.

COLLEGE CREDIT OFFERED: St. Louis Community College, 5 credits ~ Rankin Technical College and State Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: National Institute of Metalworking Skills (NIMS)-Measurement, Materials, & Safety Certification, Job Planning, Benchwork & Layout Certification

VETERINARY ASSISTANT

The science of veterinary medicine, including animal care and training, clinical procedures, medical terminology, grooming, and disease prevention are key components of this course. Students interact daily with a wide variety of animals fostered in our facilities and provide their medical care while learning from certified professionals.

COLLEGE CREDIT OFFERED: Jefferson College, 2 credits

CERTIFICATIONS OFFERED: Certified Vet Assistant-State of Missouri Vet Med Association

WEB & COMPUTER PROGRAMMING

Students will learn how to write and edit source code and applets using several programming languages including HTML and Java. Students will design, create, and maintain software, databases, and web pages while earning certifications.

COLLEGE CREDIT OFFERED: St. Louis Community College, 5 credits ~ Rankin Technical College and State Technical College, college credit opportunities exist through credit for prior learning or credit by assessment

CERTIFICATIONS OFFERED: Microsoft Technology Associate (MTA) Certification- HTML5 or Software Development ~ Python Essentials

WELDING

This competitive program teaches students to design, engineer, build, and troubleshoot complex metal fabrication challenges. Through high-level training and challenging competitions, students perfect modern welding processes while earning welding certifications.

COLLEGE CREDIT OFFERED: Ranken Technical College and State Technical College, college credit opportunities exist through credit for prior learning or credit by assessment.

CERTIFICATIONS OFFERED: American Welding Society (AWS)-multiple entry-level welding certifications available ~ S/P2 Safety Certification