STA provides innovative capstone experiences that accelerate college and career preparation for the future high-wage, high-demand professional workforce.
WHAT IS STA?

Summit Technology Academy (STA) is a career-focused academy designed to prepare students for tomorrow’s high-wage, high-demand workforce. It is located at the Missouri Innovation Campus building, which is a cutting-edge facility that looks and feels like today’s top collaborative workplaces in collaboration with community and industry partners. STA shares this facility with the University of Central Missouri – Lee’s Summit, creating a professional collegiate atmosphere for students from a network of 30 high schools. Students who are driven, focused, and passionate about discovering their future career field will thrive at STA.
TABLE OF CONTENTS

4  Signature Program Overview
6   MIC Program
8   UCM Fast Track
10  UCM Steps to Success
12  Mizzou Engineering Tiger Tracks
13  Missouri National Guard Show-Me Summit Tech
14  FAQs
16  Engineering Capstone Courses
20  Computer Science Capstone Courses
23  Health Science Capstone Courses
26  Human Services & Finance Capstone Courses
29  Arts & Communication Capstone Course
30  Internships
31  How to Apply
STA SIGNATURE PROGRAMS

sta.lsr7.org/sta-signature-programs/

Students who are admitted to STA courses may also apply to some of these accelerated and advanced options. Apply and be admitted to Summit Technology Academy by the end of your sophomore year.

The Missouri Innovation Campus (MIC) Program

This program is designed to revolutionize the way students learn and work, while bridging the gap between skills and workforce demands. The MIC program accelerates the time it takes to earn a college degree, and includes working in a high-demand, 3-year paid internship. As a result of participating in one of the MIC programs, students will be on track to earn a bachelor’s degree just two years after graduating from high school. See page 6 for more information.

For more information, visit: sta.lsr7.org/missouri-innovation-campus/

UCM Fast Track

UCM Fast Track provides a guided pathway to completing college credit while in high school. Upon high school graduation, a Fast Track student can potentially complete a four-year college degree within three years, utilizing college credits earned at STA, home high school or online. Fast Track courses are taught by qualified faculty with advanced degrees in their areas of expertise and costs approximately one third of regular undergraduate tuition. Fast Track programs include: Finance, Biological Science, Digital Media, Teacher Education, International Studies and Nursing. See page 8 for more information.

For more information, visit: sta.lsr7.org/ucmfasttrack

UCM/STA Steps to Success

Get certified in a profession in your last semester! Graduating high school and want a competitive advantage in the workplace? A certification is your advantage. Many employers require certification because they know that certified professionals are committed to their profession and they also tend to enjoy higher wages and greater promotional opportunities. See page 10 for more information.

For more information, visit: sta.lsr7.org/stepstosuccess

Mizzou Tiger Tracks

Mizzou Engineering Tiger Tracks provides guided pathways to earning college credits while still in high school, which will advance STA students toward ten engineering degrees. Mizzou Engineering’s excellence includes ABET-accredited programs, 148 faculty members, and nearly 3,200 of the brightest students on MU’s campus leading the charge in research and education in several multi-disciplinary fields, including Big Data Analytics, Biomedical Innovations and Sustainability in FEWSed (Food, Energy, Water, Smart Cities). See page 12 for more information.

For more information, visit: sta.lsr7.org/mizzoutigertracks
Show-Me Summit Tech

This customizable pathway allows students to begin a part-time career in the Missouri National Guard as a Junior or Senior in high school, while pursuing dual credit opportunities in their desired Signature Program offered at Summit Technology Academy. See page 13 for more information.

For more information, visit: sta.lsr7.org/showmesummittech/

The University of Kansas Degree in 3 (KUD3) Program

KU Edwards Campus allows you to earn college credits in high school, complete an associate's degree one year after graduating and finish your bachelor’s degree two years later.

For more information, visit: sta.lsr7.org/ku-degree-in-3/

Cerner Scholars: Next Generation Program

The Cerner Scholars: Next Generation program provides students with an opportunity to gain a deeper learning experience related to their interest in computing and technology.

Cerner has multiple locations in the KC Metro where high school students can intern. Interested students should also include that they have an interest in Cerner Scholar: Next Generation in their application essay.

For more information, visit: sta.lsr7.org/internships/cerner-scholars

International Baccalaureate Career-related (IBCP) Program

[Only for LSR7 and districts that participate in the IBCP Program]

The International Baccalaureate® (IB) Career-related Program (CP) is a framework of international education that incorporates the vision and educational principles of the IB into a unique program specifically developed for students who wish to engage in career-related learning. The career-related component of the IB Career-related Program can be completed by taking at least one course at Summit Technology Academy.

For more information, visit: sta.lsr7.org/ibcp
Crossing the stage and receiving a diploma is an important milestone for a high-school senior. Combine this with an innovative program that accelerates the time it takes to earn a college degree in addition to working in a high-demand internship, and you are left with a well-equipped, high-school graduate. As a result of participating in one of the Missouri Innovation Campus (MIC) programs, students will be on track to earn a bachelor’s degree just two years after graduating from high school.

The MIC is a progressive initiative by the University of Central Missouri, Metropolitan Community College, the Lee’s Summit R-7 School District, community organizations and business partners. This program is designed to revolutionize the way students learn and work, while bridging the gap between skills and workforce demands. The path for students to be admitted into the MIC program will encompass numerous steps. It starts with applying to Summit Technology Academy. Each step of the student’s plan towards a baccalaureate degree will include academic support and internship support from the staff of MIC. The students’ industry immersion will be structured towards a specific career field that is best matched with each student. MIC students must meet more rigorous standards. The details below will give students a glimpse into each of the six MIC programs.

Interested students must meet the following requirements:

- Meet the minimum requirements for MIC programs — 3.0 GPA and 95% attendance and appropriate ACT score (18 on English, 19 on Reading, as well as 20–22 on Math) OR ACCUPLACER score (must not place in remedial courses).
- Meet the minimum requirements for the appropriate programs at Summit Technology Academy
- Commit to providing own transportation to internship sites and college classes
<table>
<thead>
<tr>
<th>UCM Bachelor of Science Degree</th>
<th>Junior Year STA Program</th>
<th>Pre-requisites</th>
<th>Accuplacer Score</th>
<th>Senior Year Dual Credit @STA (M-W-F Only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and Drafting</td>
<td>PLTW Digital Electronics/ CIM</td>
<td>B- or better in IED/ POE or CADD Classes</td>
<td>Math 120 (degree requires Math 180 Calculus); ENGL 101; No required reading courses</td>
<td>CSIS 110 Computer Science for Systems</td>
</tr>
<tr>
<td>Computer Science: Software Development</td>
<td>Software Development III</td>
<td>B- or better in Algebra II or programming classes; Database Management I Online (available through R7 online)</td>
<td>Math 120 (degree requires Math 175 Calculus for Business); ENGL 101; No required reading courses</td>
<td>CSIS 161 Networking Fundamentals</td>
</tr>
<tr>
<td>Cybersecurity</td>
<td>Networking Engineering III</td>
<td>B- or better in Algebra II CSIS 110 (summer course)</td>
<td>Math 120 College Algebra; ENGL 101; No required reading courses</td>
<td>CSIS 123 Programming Fundamentals</td>
</tr>
<tr>
<td>Bioinformatics</td>
<td>Medical Interventions/ Biomedical Innovation</td>
<td>B- or better in two of the following science courses: PLTW Sci, biology, chemistry, anatomy, and physiology, or other related sciences</td>
<td>Math 120 College Algebra; ENGL 101; No required reading courses</td>
<td>CSIS 123 Programming Fundamentals</td>
</tr>
<tr>
<td>Software Engineering</td>
<td>Software Development III</td>
<td>B- or better in Algebra II or programming classes; Database Management I Online (available through R7 online)</td>
<td>Math 120 (degree requires Math 175 Calculus for Business); ENGL 101; No required reading courses</td>
<td>To be determined</td>
</tr>
<tr>
<td>Big Data and Business Analytics</td>
<td>Business and Finance</td>
<td>B- or better in Algebra I CSIS 110 (summer course) One credit in Business; read/write Grade 10 level</td>
<td>Math 120 College Algebra; ENGL 101; No required reading courses</td>
<td>To be determined</td>
</tr>
</tbody>
</table>

**CONTACT INFORMATION**

**Stan Elliott**  
Director  
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660-543-8256

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Innovation Coach  
dexter@ucmo.edu  
660-543-8257

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Internship Coordinator  
scavuzzo@ucmo.edu  
816-853-7707

For more information visit ucmo.edu/micprogram or email mic@ucmo.edu.
A PATHWAY TO SUCCESS
Fast Track provides a guided pathway to completing college credit while in high school. Upon high school graduation, a Fast Track student can potentially complete a four-year college degree within three years. To receive all the benefits from the Fast Track, you are encouraged to start as early as possible. Students who enroll in dual credit for STA programs can opt into the Fast Track as part of the admissions process.

GET A HEAD START ON YOUR DEGREE
• Participation in the Fast Track will allow you to quickly complete a two- or four-year degree or workforce certificate program. Take dual credit/dual enrollment courses once and have them count twice as you earn high school and college credit at the same time.
• You will receive personalized support from staff at STA, the University of Central Missouri and your high school.

RECEIVE A QUALITY EDUCATION
• Fast Track courses are taught by qualified faculty with advanced degrees in their areas of expertise.
• Classes incorporate college content preparing you for success in college and career.
• Dual credit/dual enrollment allows you to balance convenience, affordability and flexibility while gaining an outstanding education and a jump start on your future career.

COMPLETE YOUR DEGREE AT UCM AND RECEIVE MORE AID
All new, degree-seeking freshmen who began the Fast Track may qualify for the following scholarships:
• The Fast Track scholarship of $500 during their final semester at UCM
• UCM’s Red and Black scholarship of up to $4,500
• UCM’s Dual Credit Scholarship of $1,000/year ($500 per semester)

UCM AND STA OFFER THE FOLLOWING FAST TRACK PROGRAMS:
• Finance
• Biological Science
• Digital Media
• Teacher Education
• International Studies
• Nursing

To talk with an advisor about your college track, contact Brenda Fuhr, Student Transition and Engagement Coordinator at the Missouri Innovation Campus at fuhr@ucmo.edu.
Biological Science
This innovative interdisciplinary program will prepare students to provide technical support for researchers in medicine, agriculture, and other biological fields. You’ll study a combination of computer science, biology, chemistry, and statistics.

Digital Media
The Digital Media Production program at the University of Central Missouri has a strong focus on production and teaching how to write, edit, produce and publish communication of professional level substance and quality for today’s converged media.

Finance
The BSBA in Finance prepares students for dynamic careers in a variety of finance positions. The Finance field consists of three areas — Investments, Corporate (business) Finance, and Banking and Financial Institutions.

International Studies
UCM’s International Studies major is an interdisciplinary program that includes courses from various academic disciplines that help students to analyze issues from different economic, social, and political perspectives.

Nursing
The School of Nursing prepares you as a leader in healthcare delivery, health policymaking, and health promotion. UCM Nursing offers quality instruction in both rural and urban nursing. As a UCM nurse, you’ll be a competent, caring and mindful practitioner committed to the service of creating and leading a culture of health.

Teacher Education
Elementary Education (Grades 1–6) or Early Childhood (Birth–Grade 3)
A degree in Early Childhood Education from the University of Central Missouri prepares you to assess children’s developmental needs, provide developmentally appropriate instruction, and provide positive and healthy learning environments for children.
Our program offers young adults a competitive advantage in the workplace! STA/UCM students have the opportunity to earn industry-recognized certifications (IRC) in high-demand fields during their senior year of high school. Certifications:

- are often required and always valued by quality employers.
- provide you with the skills and credentials necessary to earn higher wages.
- improve prospects for promotions on the job.
- allow you to earn a good salary while pursuing additional higher education and training.
- provide a proven pathway for career advancement and success.

To participate in the UCM certificate program, students:

- must be recent STA grads or seniors who will be 18 years old by the beginning of second semester (age required to sit for national exams).
- be willing to participate in evening and online courses.
- pay a fee that covers the course, required books and the national certification testing.

**Certified Nursing Aid — Face-to-Face**

Students will participate in a holistic learning program that strengthens their ability to apply the skills to help patients with daily living activities. This job is vital to the care and well-being of patients.

- **Employers:** Long Term Care Facilities (LTC), hospitals, doctors’ offices, and clinics.
- **Pay:** Median Pay $13.72 per hour, $28,530 per year
- **Contact Hours:** 75 classroom; 100 clinical
- **IRC:** State of Missouri CNA Certification
Phlebotomy — Online

Students will be trained to collect, transport, handle and process blood and other specimens for laboratory analysis using venipuncture and micro collection techniques. Externship is a work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts under direct supervision of the clinical professional.

Employers: Hospitals, doctors’ offices, labs and clinics.
Pay: Median Pay $16.58 per hour, $34,480 per year
Contact Hours: 60 classroom; 100 clinical
IRC: Phlebotomy Technician Certification through National Health Career Association

Sterile Processing Technician — Face-to-Face

Students will be trained to provide and deliver sterile supplies and equipment used in surgeries and other important medical procedures. Technical areas students will cover include medical terminology, basic anatomy, infection control/prevention, disinfecting and decontaminating, surgical instruments, microbiology basics.

Employers: Hospitals and Surgical Centers.
Pay: Median Pay $17.82 per hour, $37,060 per year
Contact Hours: 130 classroom; 400 clinical
IRC: Certified Registered Central Services Technician from IAHCSMM

Project Coordinator (Project Manager) — Face-to-Face

In this course, students will learn project management fundamentals including key project management processes, values and benefits of standards and processes, the nine project management knowledge areas, and the five key process groups. This course will also include simulation exercises covering building a project plan, time, quality, cost, communications and scope management. To support the fundamentals, project management methodologies, templates, tools, key terms, team and relationship building, roles and responsibilities will also be examined.

Employers: All industries.
Pay: Median Pay $67,280 per year
Contact Hours: 40 classroom
IRC: Certified Associate in Project Management (CAPM)

To find out more information about STA/UCM Steps for Success, contact Clarinda Dir, Program Manager at the Missouri Innovation Campus at dir@ucmo.edu
The University of Missouri College of Engineering graduates future engineering leaders — leaders equipped with the skills to solve the challenges of not just today, but those yet to come. Mizzou allows students to utilize Advanced Placement (AP) credit and International Baccalaureate (IB) credit earned in high school toward their engineering degree. University of Missouri advisors will work with STA staff to develop comprehensive and individualized pathways for STA students to earn additional credit while in high school, which may include introductory engineering courses offered online at Mizzou and dual-credit courses from area community colleges.

Mizzou Engineering offers more than $1.2 million in merit-based scholarships annually to high-achieving incoming freshmen and transfer students, including PLTW and FIRST Robotics Scholarships. Through the Missouri Land Grant Compact, Mizzou offers competitive, affordable education to Missouri residents. The Compact may be awarded to all undergraduate Missouri residents who are full-time, Pell Grant-eligible students working toward their first undergrad degree. The Compact will meet 100 percent of the unmet financial need for full-time, Pell-eligible students enrolled in the Honors College, including tuition, fees, and room and board.

With more than 300 degree programs at Mizzou, the College of Engineering offers 10 degree programs in Bioengineering, Biomedical Engineering — the only such program at a public institution in Missouri — Chemical Engineering, Civil & Environmental Engineering, Computer Engineering, Computer Science, Electrical Engineering, Industrial and Manufacturing Systems Engineering, Information Technology, and Mechanical & Aerospace Engineering. At Mizzou Engineering, we offer our students new higher-learning and cutting-edge research opportunities in faculty labs and the chance to develop leadership skills that will develop them into engineering leaders.
Show-Me Summit Tech is a customizable pathway for students to begin a part-time career in the Missouri National Guard as a Junior or Senior in high school, while pursuing dual credit opportunities in their desired Signature Program offered at Summit Technology Academy. In this program, students who enlist in the Missouri National Guard will receive State Tuition Assistance to pay for dual credit classes, as well as paid job training in the field of their choice.

GET A STEP AHEAD OF YOUR PEERS

Members of the military are highly sought after by civilian employers.

The Missouri National Guard can provide:

- Security Clearance
- Leadership Training
- Demonstrated ability to work in a team environment
- Project management skills – mission first mentality
- Proven dedication to an organization

MONEY FOR SCHOOL FOR ANY CAREER PATH

Higher Education is a priority to The Missouri National Guard which is why we provide our soldiers with the best education benefit package possible. Our soldiers serve part time, which allows them to pursue their higher education as full time students. Some of these benefits include:

- Up to 100% Tuition Assistance
- Up to $742 per month tax free in GI Bill benefits (FY 2020 rate)
- A monthly pay check for their service one weekend a month
- College credit for their military training

**High School Students can use Missouri State Tuition Assistance to pay for dual credit course**

<table>
<thead>
<tr>
<th>Health Science</th>
<th>Computer Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>68W Health Care Specialist</td>
<td>25U Signal Support Systems Specialist</td>
</tr>
<tr>
<td>43 credit hours at the University of Central Missouri</td>
<td>26 credit hours at the University of Central Missouri</td>
</tr>
<tr>
<td>11 credit hours for Basic Training</td>
<td>11 credit hours for Basic Training</td>
</tr>
<tr>
<td>• PE 1206 — CJ 3005 — HED 1350 — MS 1110</td>
<td>• PE 1206 — CJ 3005 — HED 1350 — MS 1110</td>
</tr>
<tr>
<td>32 free credit hours for Advanced Individual Training</td>
<td>15 free credit hours for Advanced Individual Training</td>
</tr>
<tr>
<td>• These hours can be applied to any free elective credit allowed by your specific degree plan</td>
<td>• These hours can be applied to any free elective credit allowed by your specific degree plan</td>
</tr>
</tbody>
</table>

*Free electives can be evaluated on a case-by-case basis by the Dean of your program to be applied toward your major

To get started, contact SSG Andrew Niehaus 816.714.4482 | andrew.j.niehaus.mil@mail.mil
FREQUENTLY ASKED QUESTIONS:
APPLICATIONS ARE ACCEPTED BEGINNING MID-NOVEMBER.
See page 31 for application process.

- **What are the session times for STA courses?**
  Year-long courses are offered as a daily 2 hour and 5 minute block.
  AM Session: 7:55 AM–10:00 AM          PM Session: 11:50 AM–1:55 PM

- **Would I be able to participate in extracurricular activities at my sending school and still attend STA?**
  Yes. STA session times allow students to participate in extracurricular sports and activities at their sending schools. STA encourages and supports student participation in those enriching experiences.

  STA has many student organizations and competitions to expand student professional competencies: sta.lsr7.org/studentorganizations

- **Can a home school or private school student attend STA?**
  Students must enroll on a part-time basis through one of the 18 partner public school districts.

- **Will I be able to drive myself to and from STA?**
  Bus transportation is a decision of the public school district. Some districts provide a bus, whereas other districts require students to provide their own transportation to STA.

- **Will I be able to earn weighted credit for STA courses?**
  The decision to offer weighted credit varies by school district. Students from Lee’s Summit R-7 School District receive .666 weighted credit for each STA course. Please refer to sending district guidelines for appropriate weightedness.

- **What is Project Lead the Way (PLTW)?**
  A nationally-recognized engineering and biomedical curriculum being offered through the Lee’s Summit School District. Introduction to Engineering Design, Civil Engineering and Architecture (CEA), Computer Science & Software Engineering, and Principles of Engineering are introductory engineering courses being offered at numerous area high schools. In addition, Principles of Biomedical Sciences and Human Body Systems are introductory biomedical science courses offered in area high schools. **Students can advance these studies through Digital Electronics, Computer Integrated Manufacturing, Aerospace Engineering, Engineering Design and Development or Medical Interventions/Biomedical Innovations offered at Summit Technology Academy.** Ask your school counselor about information regarding PLTW or go to www.pltw.org.
STA: A National Model

Summit Technology Academy has been recognized in the national spotlight as an innovative model to prepare juniors and seniors in high school for high-wage, high-demand, professional careers.

STA provides rigorous capstone courses that blend classroom instruction with real-world, hands-on experiences with over 270 business partners. Many schools, businesses, and organizations from the U.S. and from around the world visit STA each year, including visits from a U.S. President and Missouri State governors, commending the programs and unique educational experience it provides for students.

The United States Chamber of Commerce has highlighted STA as part of their national Talent Forward campaign for talent pipeline management and workforce development. Additionally, all of STA’s courses are aligned to college-level curriculum. More details can be found on each course page of this booklet.

Explore STA’s Career Pathways
Visit: sta.lsr7.org

"Education is not the learning of the facts, but the training of the mind to think."
—Albert Einstein
This fast-paced, college level course in applied logic gives students the opportunity to learn how computers/logic circuits think and control the world around us. Students will use applied math to understand the logic behind the circuits, as well as, computer simulation software to design and test digital circuitry prior to the actual construction of the circuits. Students will have the opportunity to learn everything from basic electronic circuit design, logic circuit design, all the way up to and including programming and interfacing with microcontrollers. Students can expect to use the engineering design process to think critically and independently solve open-ended problems.

PLTW Engineering Elective Course

The entire PLTW sequence of courses taken over four years can provide up to 17 hrs of articulated college credit.

DUAL CREDIT
UCM ET 1026, ET 1050 (7 hrs credit for eligible students)

PREREQUISITE
GPA: 2.5 cumulative or higher; Attendance: 90% or higher; Math: Algebra I, B- or higher; Reading/ Writing: 10th grade level

PREREQUISITE FOR PLTW MEMBER SCHOOLS
Introduction to Engineering Design, Principles of Engineering

RECOMMENDED
Average Math and Engineering grade: B- or higher.
This exciting course provides students with the fundamentals of computerized manufacturing technology in a global perspective. Students will have individual and team projects in the following areas of manufacturing: Computer Modeling — using a three dimensional, solid modeling software package with mass property analysis and design interface tools. CNC Equipment — understanding the machinery and tools and their operating and programming aspects. CAM Software — converting computer generated geometry into a program to drive CNC machine tools. Robotics — robotic arm programming and how they are used for materials handling and assembly operations. Flexible Manufacturing Systems — working in teams to design manufacturing work cells and table top factory simulations. The students will interact with industry experts and should expect to be challenged with ideation and creation of projects while working within a set of constraints.

Students need to choose 2 of the 3 courses (DE, CIM, AE) to make a full-year selection.

PLTW Engineering Elective Course

The entire PLTW sequence of courses taken over four years can provide up to 17 hrs of articulated college credit.

DUAL CREDIT
UCM ENGT 1012 (2 hrs credit for eligible students)

PREREQUISITE
GPA: 2.5 cumulative or higher; Attendance: 90% or higher; Algebra I with a B- or higher. Reading/Writing: 10th grade level.

PREREQUISITE FOR PLTW MEMBER SCHOOLS
Introduction to Engineering Design, Principles of Engineering

RECOMMENDED
Average Math and Engineering grade: B- or higher

*Weighted credit varies by schools outside of LSR-7
This course provides students with the fundamental knowledge and experience to apply mathematical, scientific, and engineering principles to the design, development, and evolution of aircraft, space vehicles and their operating systems. In the classroom, students will engage in creative thinking and problem-solving activities using software that allows students to design, test, and evaluate a variety of air and space vehicles, their systems, and launching, guidance and control procedures. Students will build and test airfoils, gliders and model rockets, as well as fly a plane in a flight simulator program. Students can expect to work with and/or be mentored by professionals in the aviation/aerospace career field from around the Greater Kansas City metropolitan area.

Students need to choose 2 of the 3 courses (DE, CIM, AE) to make a full-year selection.
FALL SEMESTER
Engineering Design & Development™

Student design teams work on an open-ended problem in which they research, design, and construct a solution. Students apply principles developed in the four preceding courses, learn advanced physics and mathematical applications, and are guided by engineering mentors. Design teams must present progress reports, submit a final written report, and defend their solutions to a panel of Kansas City area engineering professionals at the end of the fall semester.

SPRING SEMESTER
Engineering Field Experience

**PREREQUISITE:** B- or better in EDD, and a B- or better in the mathematical activities as presented by the instructor throughout EDD.

The Engineering Field Experience (EFE) course requires that students (AM section only) travel two days per week to Lee’s Summit City Hall and the Public Works Engineering Department. The engineering staff at HDR travel to STA two days per week. LSPW department assigns a city infrastructure project to the AM students. HDR provides instruction on the essentials of wastewater treatment plant design to the PM students. Students will learn the fundamental concepts of structures, and fluid mechanics which will be applied directly to the projects for LSPW and HDR.
FALL SEMESTER

The course introduces the architecture, structure, functions, components and models of the Internet and other computer networks. It uses the OSI and TCP/IP layered models to examine the roles of protocols and services. This includes the principles and structure of IP addressing, LAN and WAN specifications, and network management, which provide a foundation for the course. Hands-on and simulation based activities in this course assist with the configuration, operation, and troubleshooting of routers and switches in a small to medium sized internetwork.

This course encompasses 2 additional college classes (6 college credits) in order to prepare the student for the Cisco Certified Entry Network Technician certification exam.

SPRING SEMESTER

This course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design, implement, and secure enterprise and wide area networks. This includes functionality, configuration, and troubleshooting of inter-VLAN routing, VLANs, WLANs as well as wide area networking technologies. This course encompasses 2 additional college classes (6 college credits) in order to prepare the student for the Cisco Certified Entry Network Technician certification exam.
This course will give students a hands-on experience into network security protection, as well as an understanding of the types of attacks used against networks. The course will cover security policies such as risk management, data privacy, employee management, device management, network management, and business continuity. Students will also learn current technologies such as SSH, AAA, ACLs, IPS/IDS, PKI, and others. Students will develop an understanding of physical, perimeter, network, host, application and data defenses. This course covers the information required for the Cisco CCNA Security and CompTIA Security+ certification exams.
FALL SEMESTER

C++

Students will learn structured programming techniques, proper program design, and object-oriented programming concepts and skills using the C++ programming language. Topics include basic object-oriented programming, events, logic structures and simple input/output techniques.

SPRING SEMESTER

Java

Using the Java programming language, the students will focus on structured programming techniques, proper program design and object-oriented programming concepts and skills. The capstone project will provide students a unique opportunity to practice agile-based software development from application design to delivery — skills that are in high demand in today’s job market.

Earn up to 9 hrs college credit

DUAL CREDIT
MCC CSIS 123, 222, 223 (available to eligible students)
MCC requires Accuplacer placement into Math 31 or higher or an equivalent ACT score.

PREREQUISITE
GPA: 2.5 cumulative or higher;
Attendance: 90% or higher;
Math: Algebra II, B- or higher or previous programming knowledge; Reading/Writing: 10th grade or higher;
Keyboarding: min. of 30 wpm

RECOMMENDED
One of the following courses:
PLTW Computer Science & Software Engineering or PLTW Computer Science Principles or CHAOS I or Database Management I (offered through R7 Online)

*Weighted credit varies by schools outside of LSR-7
Allied Health Academy

This program is for juniors and seniors interested in learning more about Allied Health careers or who would like to enter college healthcare programs after graduation. Students will be engaged in hands-on skills lab work and projects related to Dentistry, Health Information Technology; Occupational Therapy, Paramedic/EMT Physical Therapy/Physical Therapy, Radiology and Respiratory Care, Surgical Technology, Polysomnography, Chiropractic, Athletic Training, Laboratory, Pharmacology, and other allied health careers. This program allows internship and shadowing opportunities in allied health career fields. In addition, students have opportunities to gain industry credentials such as Basic Life Saver CPR training and HIPAA credentials.

Students will have to provide transportation in order to accommodate outside lab experiences and shadowing.

Earn up to 4 hrs college credit

DUAL CREDIT
MCC BIOL 150 Medical Terminology & ALHT 100 Introduction to Health Care Careers (2 hrs. credit each course) MCC requires Accuplacer placement into Math 40 or higher Eng. 101, and no reading recommendation or equivalent ACT scores.

PREREQUISITE
GPA: 2.5 cumulative or higher; Attendance: 90% or higher. Other requirements: Algebra I, Biology or Chemistry, with a C or higher

RECOMMENDED
Anatomy/Physiology; Psychology

REQUIREMENTS FOR INTERNSHIP PLACEMENT
Upon approval in the program, a negative drug screen and TB skin test results (at student expense), background check and proof of immunizations

*Lear*
MEDICAL INTERVENTIONS™

Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of the Smith family. Students conduct experiments while exploring how to prevent and fight infection, how to screen and evaluate the code in human DNA, how to prevent, diagnose and treat cancer, and how to prevail when the organs of the body begin to fail. Students are exposed to a wide range of interventions related to bacterial infections, surgery, genetic engineering, pharmacology, medical devices, and diagnostics. Students study real world medical problems through laboratory experiences.

A background check and TB test is necessary for hospital lab placements.

BIOMEDICAL INNOVATION™

In this capstone course students design and conduct experiments related to the diagnosis, treatment, and prevention of disease or illness. They apply their prior knowledge and skills to solve problems related to Bio-Medical science. Students may work with a mentor or advisor from a university, hospital, or physician's office, as they complete an Independent Research Project of their own choosing. Students present their Independent Research Project at GKSEF and Union Station. Scholarships are awarded to top winners. Other course topics include: problems in emergency medicine, forensic autopsy, human anatomy and physiology, molecular biology, epidemiology, and water quality. Students completing all four PLTW Biomedical courses receive a white coat at the end of the year ceremony.
This course is designed to prepare senior students, who have identified nursing as a clear career goal, for a collegiate registered nursing program. Students will learn through classroom instruction and practice in a clinical skills lab. Major units of study include nursing history and career exploration, pharmaceutical math, CPR/First Aid, nursing skills, and medical terminology. The course will introduce students to the nursing process, nursing documentation, effective communication skills, medical ethics, and NCLEX-RN style assessment questions. Students will learn and use APA style in the production of a research paper. Dual college credit options are subject to change based on instructor qualifications and college requirements.

Student must provide their own transportation for clinical experiences.
The Teacher Educator Academy is designed for students who are considering the elementary/secondary teaching profession or a career as a corporate educator. The course offers students the opportunity to put theory into action through classroom work and the practicum. Students will develop skills and professionalism needed to succeed as an educator as they work directly with students/adults in the practicum. Each student is assigned to a district school within the high school attendance boundaries or to a corporate education department. A blended instructional model of classroom and online learning is used to deliver instruction and to provide opportunities for students to develop their beliefs and philosophy of education. Students will participate in Educators Rising as part of the course requirements.

Students will need transportation.
This course is designed for students who are passionate about world cultures, languages, and diversity. Through service projects and possible internships, students will meet and work with refugees and recent immigrants, applying content knowledge to actual, meaningful situations. A Rotary Interact club is embedded into the class which requires students to complete additional service projects on an international scale. Students will also participate in Model UN by writing position papers and studying the political/social/economic environments of individual countries. They should also be comfortable using technology, presenting in front of groups, and understand the expectations of professionalism. Students will work in teams to prepare cultural presentations for real business clients and learn about being a professional. Students in this program will be working for a student-run cultural consulting firm, Global Prep Squad, where they will be providing cultural services to real business customers and clients. Student grades are determined through a unique system where students receive a simulated salary and bonuses. Students in this program are expected to think for themselves and be able to manage projects on their own.

Student will need to make arrangements for transportation to off-site presentations, optional internships, and rides home from STA on predetermined dates.

Please speak with administration if you have any transportation concerns.
This dynamic program is for students interested in learning advanced concepts in finance and financial technology (FinTech) careers and would like to enter college finance programs after graduation with a competitive advantage. Students will be immersed in problem-based and project-based instruction that mirrors the current financial industry related to the following areas: Risk Management, Data Analysis (BIG DATA), Financial Technology (FinTech), Financial Modeling, Understanding Balance Sheets and P&L Statements, Economics, Communication Skills, Corporate Finance, Commercial Banking, Investment Management and Financial Advisory Insurance. This program allows internship and shadowing opportunities in financial career fields. Students will utilize the best of modern technology with a selection of online coursework, simulations and hands-on learning.

**Earn up to 12 hrs college credit**

**DUAL CREDIT**
- UCM ECON 1010 Principles of Macroeconomics GE (3 credit hours for eligible students);
- ACCT 1101 Foundations of Financial Reporting (3 credit hours for eligible students);
- CIS 1600 Business Information Management GE (3 credit hours for eligible students);
- BADM 1500 Foundations of Business (1 credit hour for eligible students);
- BADM 1505 Job Shadowing (2 credit hours for eligible students)

**PREREQUISITE**
- GPA: 2.5 cumulative or better;
- Attendance: 90% or better; Math: Algebra I, B- or higher; Business: one full credit in business;
- Reading/Writing: 10th grade level.

**RECOMMENDED**
- Accounting, Introduction to Business
The Digital Media Technology program at Summit Technology Academy gives students an opportunity to explore and prepare for careers in Arts, Audio/Video Technology, and Communications. Students will focus on the complete video and audio production workflow from preproduction through post production. They will work in teams to integrate music, graphics and video technologies in entrepreneurial projects for their schools and/or communities. Students have the opportunity to prepare for an industry-recognized certification in Apple Final Cut Pro.

**Earn up to 4 hrs college credit**

**DUAL CREDIT**
UCM COMM 1275 Intro to Media Tech and COMM 1519 Media Aesthetics (4 credit hours for eligible students)

**PREREQUISITE**
GPA: 2.5 cumulative or higher; Attendance: 90% or higher; Math: Algebra I, C or higher; Reading/Writing: 10th grade level; one credit in Fine Arts

**RECOMMENDED**
Computer Applications or Programming; proficiency in keyboarding.
Internship in STEM Careers

Students interested in an internship such as Cerner Scholars should apply for Internship in the STEM Careers program. Selection of Cerner Scholars is ultimately up to Cerner.

This course/internship offers students a chance to earn high school credit for a unique, problem-based learning experience in a highly competitive work environment in the areas of science, technology, engineering and math (STEM). Students will secure an internship in an area that matches their chosen area of focus. Interns will work collaboratively to solve a variety of relevant problems, as well as participate in real-work and job exploration activities. At the completion of the program, interns will demonstrate their communication and collaborative skills through a senior exposition. Student must provide their own transportation.

Student must provide their own transportation.

Internship in MIC

This course is for students who will be completing an internship through one of the MIC business partners. Student will attend STA either first or second semester and will take a dual credit course through MCC as part of this course. Students should enroll in this course for the entire year.
Learn More

The STA website has videos and detailed information about each course under the “Courses” menu at [sta.lsr7.org](http://sta.lsr7.org).

Students, parents, and community members can visit with STA instructors and students during one of three Open House Nights. For more information, visit: [sta.lsr7.org/openhouse](http://sta.lsr7.org/openhouse).

- November 14, 2019
- January 9, 2020
- February 6, 2020

- November 12, 2020
- January 14, 2021
- February 4, 2021

Interested students can talk to their high school counselor about their interest in STA and inquire about possible tours to STA by their high school.

Apply to STA

APPLICATION WINDOW OPENS LATE FALL. See STA website for more information.

Students apply to STA via the Online STA Application Webpage. Go to: [sta.lsr7.org](http://sta.lsr7.org) click on “Apply to STA” in the upper right corner of the website (or go to: sta.lsr7.org/apply).

Prior to beginning the application, it is important to compose your answers to two essay questions. Questions can be found at [sta.lsr7.org/apply/](http://sta.lsr7.org/apply/). Save your answers to a document so that you can copy and paste them into the application later. This will help avoid server timeout issues during the application process.

Students will need to create an account by entering their school issued email address (if one is issued) and creating a password. Then students will log into this new account and begin the application process by entering:

- personal and parent information
- programs of interest at STA
- two teachers who will complete recommendations for you
- pasting in your previously composed essay answers

After the application is complete, students should print the completed application. A confirmation email will also be sent to the student’s email address.

For more information about STA, contact your guidance counselor, visit [sta.lsr7.org](http://sta.lsr7.org) or [www.ceckc.org](http://www.ceckc.org).
NETWORK SCHOOL DISTRICTS

Belton
Blue Springs
Center
Grain Valley
Grandview
Harrisonville
Hickman Mills
Holden
Independence
Kansas City
Kingsville
Lee’s Summit
Lone Jack
Midway R-1
Odessa
Pleasant Hill
Ray-Pec
Raytown

For more information about STA, contact your school counselor or visit sta.lsr7.org

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