BENEFITS:

Francis Tuttle offers Academies to address national shortages of highly-skilled engineers, health care professionals, and computer scientists by developing a skilled and highly-educated workforce. Through strong partnerships with local colleges and universities, the Academies are increasing the number of suitable candidates for these programs. Graduates from the Academies are much better-prepared for their postsecondary education and are more likely to complete their degree program within the respective field.

In terms of advantages, graduating students will be well-prepared for college coursework due to the rigor and relevance of the Academy curriculum. All math and science courses are taught in the context of biosciences and medicine, computer science or engineering.

Furthermore, students will learn about the broad fields of biosciences and medicine, computer science, or engineering and will be able to determine their interest in pursuing those careers.

SUCCESSES:

The Academies have received many accolades, both in program offering and student performance. Academies have been named finalists for the "Innovator of the Year" award given by The Journal Record.

The Oklahoma Department of Commerce has recognized our Academies through its Grow Oklahoma campaign, as it focuses on "Reality-Based Learning"

The Biosciences and Medicine Academy was selected as a Best Practice for quality career/technical programs by the Southern Regional Education Board.

Since 2014, Engineering Academy students have earned 15 US patents for inventions they have created in their senior capstone courses.The Computer Science Academy is the first program of its kind in the state.

Graduates from our Academies have attended university programs across the United States from the Massachusetts Institute of Technology and the University of Southern California to Virginia Commonwealth University and Johns Hopkins University. Our graduates believe the instruction they received through the Academies fully-prepared them for their college experience.

APPLICATION PROCESS:

Students begin the application process by completing a Francis Tuttle application for admission, which can be found in their high school counselor's office or at francistuttle.edu, and submitting the application to the high school counselor or to a Francis Tuttle representative. Then, eligible students and parents will be invited to participate in an on-site interview.

HIGH SCHOOL GRADUATION REQUIREMENTS:

Through enrollment in the Academies, students have the opportunity to earn core credits in math and science and elective credits for the discipline-specific courses. Francis Tuttle reports all grades to the partner high schools to count for high school graduation requirements.

HOME-EDUCATED STUDENTS:

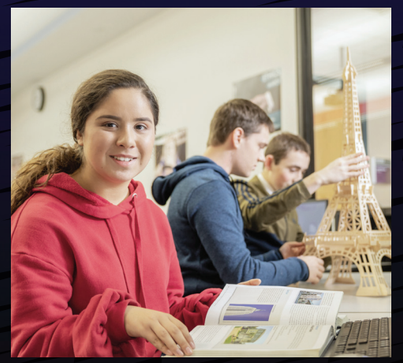
Home-educated students that reside in the Francis Tuttle district are eligible to attend at no cost. Students must complete an application and meet the listed entrance requirements for the Academy they are interested in attending.

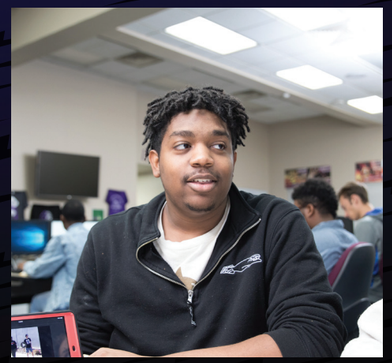
Visit us at:
francistuttle.edu
Or call: 717.4900

@FTtechokc @francistuttle

It is the policy of Francis Tuttle not to discriminate with regard to race, color, religion, gender/sex, national origin, age, marital or veteran status, or disabilities. This policy shall be followed in the operation of its educational programs and activities, recruitment, admissions, employment practices and other educational services. Inquiries concerning application of this policy may be directed to the Human Resources Director, who serves as the Coordinator of Title IX; Section 504; and Americans with Disabilities Act for all campuses, at 12777 N. Rockwell, Oklahoma City, OK 73142-2789, (405) 717-7799.

TO THE ACADEMIES





ACADEMIES

DESIGN YOUR FUTURE

FRANCIS TUTTLE TECHNOLOGY CENTER

ACADEMIES

BIOSCIENCES & MEDICINE | COMPUTER SCIENCE | ENGINEERING | ENTREPRENEURSHIP

BIOSCIENCES & MEDICINE ACADEMY

RATIONALE:

Oklahoma faces several challenges in the health care industry. According to the Oklahoma Health Workforce Data Book published in 2015 by the Oklahoma State Department of Health, Oklahoma ranks 49th in the nation in primary care providers. Compounding the health care crisis, 58.6% of Oklahomans reside in Primary Care health professional shortage areas as designated by the National Health Service Corps. Due to the high need of health care workers across all fields, Francis Tuttle is committed to preparing students for successful transitions to pre-professional degree programs in Bioscience, Health, and Medicine.

Currently, Francis Tuttle partners with public and private colleges and universities in the metro to expose students to high level research, internships, and experiences to provide robust experiences for high school students preparing for a career in Bioscience and Medicine.

CURRICULUM:

The Academy focuses on college preparation and includes advanced math and science curriculum and courses from Project Lead the Way, a national program which features partnerships among public schools, higher education institutions and the private sector to increase the quantity and quality of graduates.

ENTRANCE REQUIREMENTS:

Candidate must be at or above grade level in reading and math and demonstrate a high interest and/or aptitude in math, science and health fields. Must have taken Biology I and Algebra I with a grade of B or better. Candidate must have passed eighth-grade state tests in reading and mathematics and have a minimum of a 3.0 overall GPA.

Candidate must be at least of sophomore status before starting in the Academy.

OVERVIEW:

The Biosciences & Medicine Academy is designed to prepare high school sophomores, juniors and seniors for success in colleges and universities. Rigorous math and science (Honors and AP level only) are combined with medically-related classes to provide students with the academics they will need to be successful in a Bachelor's program and gain an understanding of the broad field of biosciences and medicine.

High school students may attend for up to three school years. Graduates from the Academy should be planning to pursue a college or university track to obtain a degree in some field within the biosciences and medicine fields.

Biosciences & Medicine
Contact Info: 405.717.4375
francistuttle.edu/bio

Math Courses:
Honors Geometry
Honors Algebra II
Honors Pre-Calculus/ Trigonometry
AP Calculus AB and BC
AP Statistics

Project Lead The Way Courses:
Principles of Biomedical Sciences
Human Body Systems
Medical Interventions
Biomedical Innovation

Science Courses:
Honors Anatomy and Physiology
Honors Chemistry
AP Chemistry
Honors Microbiology
AP Physics I

COMPUTER SCIENCE ACADEMY

RATIONALE:

From creating video games to programming technology or building mobile apps, the field of computer science is exciting and constantly evolving with virtually unlimited growth. In fact, employment in computer and technology occupations is projected to grow 12% nationally by 2028, which is significantly faster than the average for all occupations. It is estimated that 1 million computer programming-related jobs in the US are expected to be unfilled by 2020. To prepare students to fill this skills gap, the Computer Science Academy provides the opportunity to study the design, development, and analysis of the software and hardware used to solve problems in a variety of contexts.

The Computer Science Academy at Francis Tuttle will prepare students to successfully pursue higher education in the field of computer science.

CURRICULUM:

The Academy focuses on college preparation and includes advanced math and science curriculum and courses from Project Lead the Way, a national program which features partnerships among public schools, higher education institutions and the private sector to increase the quantity and quality of graduates.

ENTRANCE REQUIREMENTS:

Candidate must be at or above grade level in reading and math and demonstrate a high interest and/or aptitude in technology, computers, programming, coding, or even video games. Must have taken Biology I and Algebra I with a grade of B or better. Candidate must have passed eighth-grade state tests in reading and mathematics and have a minimum of a 3.0 overall GPA.

Candidate must be at least of sophomore status before starting in the Academy.

OVERVIEW:

The Computer Science Academy is designed to prepare high school sophomores, juniors, and seniors for success in colleges and universities. Rigorous math and science offerings (Honors and AP level only) are combined with computer-related classes to provide students with the academics they will need to be successful in a Bachelor's program and gain an understanding of the broad field of computer science.

Computer Science
Contact Info: 405.717.4232
francistuttle.edu/csa

Math Courses:
Honors Geometry
Honors Algebra II
Honors Trigonometry/ Honors Precalculus
AP Calculus AB
AP Calculus BC

Project Lead The Way Courses:
AP Computer Science - Applications
AP Computer Science - Principles

Computer Science Courses:
Cybersecurity
A.I. Robotics
Software Engineering
Game Development

Science Courses:
Honors Chemistry
AP Physics I
AP Physics II

ENGINEERING ACADEMY

RATIONALE:

It is estimated that almost 66 percent of students entering colleges of engineering will change majors or drop out of college before the end of their second year. Nationwide, the need for engineers is increasing while the number of engineering graduates has not kept pace. The issue is not necessarily that too few students enter our colleges of engineering, but rather, that too few are adequately prepared to complete the rigorous math and science courses required for graduation. The Engineering Academy was developed to help counter these issues. Through active partnerships with Oklahoma State University, University of Oklahoma and Oklahoma Christian University, the Engineering Academy is helping students understand what engineers do and the education needed to become one.

CURRICULUM:

The Academy focuses on college preparation and includes advanced math and science curriculum and courses from Project Lead the Way, a national program which features partnerships among public schools, higher education institutions and the private sector to increase the quantity and quality of graduates.

ENTRANCE REQUIREMENTS:

Candidate must be at or above grade level in reading and math and demonstrate a high interest and/or aptitude in math, science and technology fields. Home-educated students who live in the Francis Tuttle school district are eligible to attend and must meet the same entrance requirements. Candidate must have passed eighth-grade state tests in reading and mathematics and have a minimum of a 3.0 overall GPA (Grades of B or better in math and science courses are required).

Candidate must be at least of sophomore status before starting in the Academy.

OVERVIEW:

The Engineering Academy is designed to prepare high school sophomores, juniors, and seniors for success in colleges of engineering. Rigorous math and science (Honors and AP levels only) are combined with engineering-related classes to provide students with the academics they will need and an understanding of engineering to help them decide if this is truly the field they wish to pursue. High school students may attend for up to three school years. Graduates from the Academy should be planning to pursue a university track to obtain a degree in some discipline of engineering.

Engineering
Contact Info: 405.717.4705
francistuttle.edu/pea

Math Courses:
Honors Geometry
Honors Algebra II
Honors Pre-Calculus/ Trigonometry
AP Calculus AB and BC

Science Courses:
Honors Chemistry
Honors Physics
AP Chemistry
AP Physics C: Mechanics
AP Physics C: Electricity and Magnetism

Project Lead The Way Courses:
Principles of Engineering
Introduction to Engineering Design
Digital Electronics
Computer Integrated - Manufacturing/Robotics
Aerospace Engineering
Civil/Architectural Engineering
Engineering Design and Development

ENTREPRENEURSHIP ACADEMY

RATIONALE:

As the new economy gains steam, there is a greater need for individuals who can problem solve, innovate, and create new pathways. Today's generation of students express a high interest in working for themselves, starting a business of their own, or cultivating an idea that will be beneficial to society. The Entrepreneurship Academy is an opportunity for students to leverage 21st century skills while learning what it takes to develop a successful business.

The Entrepreneurship Academy was developed to help students understand the fundamental elements of starting a business. Through active partnerships with universities and local entities (Launch Pad FT, Thunder Launch Pad operated by the Stitch Crew), students will design and develop meaningful projects that will prepare them for higher education and successful business ownership.

CURRICULUM:

The Academy focuses on college preparation and/or business ownership and includes advanced math and science curriculum. In addition, students will be exposed to rigorous curricula that challenges students to solve problems and work collaboratively while learning to successfully own and operate their own business.

ENTRANCE REQUIREMENTS:

Candidate must be at or above grade level in reading and math and demonstrate a high interest and/or aptitude in business ownership. Must have taken Biology or Physical Science with a grade of C or better. Preferably, candidate will have passed eighth-grade state tests in reading and math and have a minimum of a 2.5 overall GPA. Candidate must be at least of sophomore status before starting in the Academy.

Math Courses:
Honors Geometry
Honors Algebra II
Honors Pre-Calculus/ Trigonometry
AP Calculus AB and BC
AP Statistics

Entrepreneurship Courses:
Introduction to Entrepreneurship
Ideation and Innovation
Professional Skills
Running a 21st Century Business
Building Customer Relationships
Finance and Accounting
Growth and Traction
Capstone

Science Courses:
Honors Chemistry
Honors Physics
AP Chemistry
AP Physics
AP Physics II

OVERVIEW:

The Entrepreneurship Academy is designed to prepare high school sophomores, juniors, and seniors for success in colleges and universities as well as launching a successful business venture in today's economy. Rigorous math and science (Honors and AP levels only) are combined with entrepreneurship-related classes to provide students with the academics and hands-on experience they will need to gain a comprehensive understanding of the field of entrepreneurship.

High school students may attend for up to three school years. Graduates from the Academy should be planning to pursue a university track in a business-related field and/or starting a business of their own.

Entrepreneurship
Contact Info: 405.717.4179
francistuttle.edu/ea