KENTUCKY’S FIRST RESIDENTIAL STEM ACADEMY

The Gatton Academy of Mathematics and Science in Kentucky is the Commonwealth’s two-year residential program for students interested in pursuing advanced careers in science, technology, engineering, and mathematics. Instead of spending their junior and senior years in traditional high schools, our 190 students take all their coursework through Western Kentucky University with regularly-enrolled college students. The Gatton Academy empowers Kentucky’s exceptional young scientists and mathematicians to learn in an environment which offers advanced educational opportunities while living in a community that is both supportive and fun.

CLASS OF 2019

ACT COMPOSITE RANGE
High: 35
Low: 25
Average: 30.27

ACT MATH RANGE
High: 36
Low: 22
Average: 29.93

Application deadline is February 1

In the school’s first eleven years, students from 117 of Kentucky’s 120 counties have attended The Gatton Academy.
ACADEMICS
The academic rigor of the Gatton Academy is meant to challenge students to excel at the highest levels, while drawing connections between the classroom and real-world research options. All coursework is taught at the college level by university professors.

MATHEMATICS (3-4 Courses)
Students are assigned their introductory math course based on prior coursework and placement exam scores administered by the Western Kentucky University Department of Mathematics.

- MATH 117 Trigonometry (3 Hours)
- MATH 136 Calculus I (4 Hours)
- MATH 137 Calculus II (4 Hours)
- MATH 237 Multivariable Calculus (3 Hours)
- MATH 307 Introduction to Linear Algebra (3 Hours)
- MATH 371 Computational Problem Solving (3 Hours)

CORE SCIENCE (5 Courses)
Students must take at least one biology, chemistry, computer science, and physics class. Additionally, students must complete at least one two-course STEM sequence.

- BIOL 120/121 Biological Concepts: Cells, Metabolism, and Genetics/Lab (4 Hours)
- BIOL 122/123 Biological Concepts: Evolution, Diversity, and Ecology/Lab (4 Hours)
- CS 180 Computer Science I/Lab (4 Hours)
- CS 221 Computer Science II (4 Hours)
- CHEM 120/121 College Chemistry I/Lab (5 Hours)
- CHEM 222/223 College Chemistry II/Lab (5 Hours)
- PHYS 255/256 University Physics I/Lab (5 Hours)
- PHYS 265/266 University Physics II/Lab (5 Hours)

STEM ELECTIVES (3-4 Courses)
Students choose from the following areas: agriculture, architecture, astronomy, biology, chemistry, communication sciences and disorders, computer science, engineering, environmental science, exercise science, geography, geology, healthcare administration, manufacturing, math, meteorology, nursing, physics, psychological sciences, and/or public health.

ENGLISH (2 Courses)
Students who score 29 or higher on the English portion of the ACT or a 650 or higher on the Critical Reading portion of the SAT receive credit for English 100 and begin with English 200.

- ENG 100 Introduction to College Writing (3 Hours)
- ENG 200 Introduction to Literature (3 Hours)
- ENG 300 Writing in the Disciplines (3 Hours)

US HISTORY (Up to 1 Course)
Students who have not documented completion of US History by August 15 before starting enrollment at The Gatton Academy enroll in HIST 241.

- HIST 241 United States Since 1865

ACADEMY OF MATH & SCIENCE SEMINAR (3 Courses)

- ACMS 175 Junior Seminar I (1 Hour)
- ACMS 175 Junior Seminar II (1 Hour)
- ACMS 175 Senior Seminar (1 Hour)

SCHOLARLY RESEARCH
Learning from one-on-one mentorship by university faculty, students work on STEM research projects completely outside of the classroom, taking research on as an extracurricular interest. Students share their findings through presentations at local, state, and national conferences.

STEM + CRITICAL LANGUAGE
Twenty students in our Class of 2019 study in our STEM + Critical Language curricular pathways (three in STEM + Arabic, eight in STEM + Chinese, and nine in STEM + Russian). These students supplement the school’s STEM-based curriculum by taking intensive Arabic, Chinese, or Russian language courses of increasing rigor each semester. They achieve at least four levels of mastery by graduation. Students in the STEM + Chinese pathway have the option of studying in the demanding National Security Education Program’s WKU Chinese Flagship courses. The Gatton Academy considers study in STEM + Critical Language pathways equivalent to conducting independent, mentored research. These pathways are an option available to students once they have been accepted to The Gatton Academy.

As of August 2018, 88 students comprised our Class of 2019.

CLASS OF 2019 PROFILE
83% participated in scholarly research or a STEM + Critical Language
85% have had an international travel experience
15% Appalachian students

Student complete additional pre-college requirements as mandated by the Commonwealth of Kentucky.