THE GATTON ACADEMY

of Mathematics and Science

CONTACT

The Gatton Academy
Western Kentucky University
1906 College Heights Blvd. #71031
Bowling Green, KY 42101

Phone: 270-745-6565
Email: academy@wku.edu
Website: wku.edu/academy

SOCIAL

f **FACEBOOK**
@gattonacademy

🐦 **TWITTER**
@gattonacademy

📷 **INSTAGRAM**
@gattonacademy

KENTUCKY'S FIRST RESIDENTIAL STEM ACADEMY

The Gatton Academy of Mathematics and Science in Kentucky is the Commonwealth's first 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.

STUDENT TRANSCRIPTS

Transcripts include grades earned from the home high school (freshman and sophomore years) and grades earned from The Gatton Academy through Western Kentucky University (junior and senior years).

Unweighted GPAs are reported on a 4.0 scale.

› When adding WKU course credits to the high school transcript, three-hour university courses are converted to one high school course credit.

› After determining the quality points from both the home high school and WKU, a cumulative GPA is calculated on a 4.0 scale.

Weighted GPAs are tabulated for colleges who consider them. One quality point is added for each WKU course taken that is part of the Gatton core curriculum.

The Gatton Academy does not rank students or their GPAs.

STUDENT SELECTION

Applicants are high school sophomores who have completed Geometry and Algebra II by the end of their sophomore year. Students are selected based on ACT or SAT scores; academic grades from ninth and tenth grades; interest in advanced careers in science, technology, engineering, and math; student responses to application essay questions; recommendation letters; and interviews. The application process is competitive, as only 25% of applicants who start the application are accepted. The Gatton Academy accepts approximately 95 students each year.
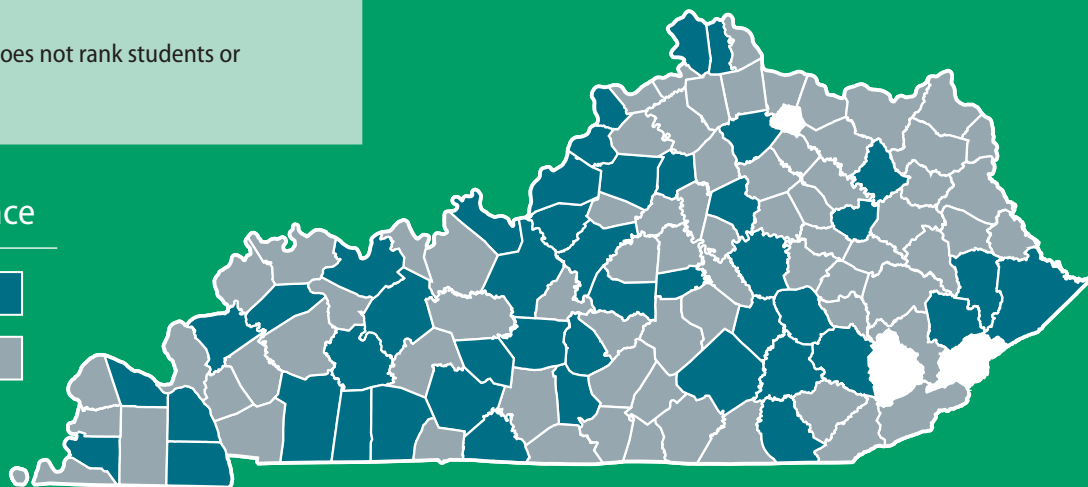
ACT RANGE	
High (75%):	**34**
Low (25%):	**29**
Average:	**32**

UNWEIGHTED GPA RANGE	
High (75%):	**4.0**
Low (25%):	**3.83**
Average:	**3.87**

County Attendance

The Class of 2022	■
Student from county has attended Gatton	■

In the school's first fourteen 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 290 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)*

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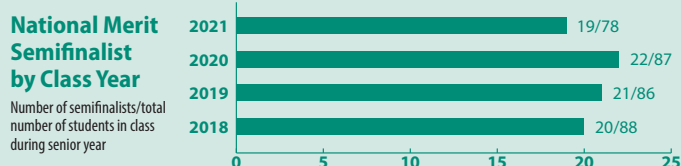

INSTITUTIONAL ACCOLADES

11 **consecutive appearances on Jay Mathew's list of Public Elite Schools** (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020)

188 research presentations given at academic conferences during the 2019-2020 academic year

6 straight years advancing to the National Science Bowl Competition (2015, 2016, 2017, 2018, 2019, 2020)

18 **U.S. Department** of State National Security Language Initiative for youth (NSLI-Y) Scholarships in 2021

54 hours or more of community service completed on average by each student

National Merit Semifinalist by Class Year
Number of semifinalists/total number of students in class during senior year

Class Year	Semifinalists/Total
2021	19/78
2020	22/87
2019	21/86
2018	20/88

CLASS OF 2022 PROFILE

79% of the Class of 2021 participated in research or STEM + Critical Language during 11th grade

41 students placed in full-summer research internships
* including Gatton Research Internship Grants, WKU Sisterhood Research Internship Grants, NSF-funded internships, and Gatton Sponsored Internship Program recipients

83% participated in summer learning in summer 2020

16% Appalachian students

As of August 2021, 84 students comprised our Class of 2022.

SCHOLARLY RESEARCH

Learning from one-on-one mentorship from university faculty, students work on STEM research projects beyond the classroom, taking research on as an extracurricular scholarly pursuit. Students share their findings through presentations at local, state, and national conferences.

STEM + CRITICAL LANGUAGE

Nineteen students in our Class of 2022 study in our STEM + Critical Languages curricular pathways (three in STEM + Arabic, nine in STEM + Chinese, and seven in STEM + Russian). These students supplement the program'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.