

# KANSAS ACADEMY OF MATHEMATICS & SCIENCE

At Fort Hays State University

Sensational Science



**FORT HAYS STATE UNIVERSITY**

*Forward thinking. World ready.*

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## What is KAMS?

An early-entry-to-college program that allows academically talented and motivated high school juniors & seniors who are interested in math and science to live at FHSU and attend a residential academy.



[www.fhsu.edu/kams](http://www.fhsu.edu/kams)

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## About KAMS . . .

- Students receive 68 hours of college credit
- Focused on academics, research, leadership development and civic engagement
- Established and funded by the Kansas state legislature to promote mathematics and science education



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# Brief History . . .

2007 Kansas Board of Regents charged with selecting host site; FHSU selected

2009 First class of 26 students accepted to KAMS

2010 Second class of 24 students accepted to KAMS

2011 Third class of 28 students accepted to KAMS

2012 Fourth class of 40 students accepted to KAMS



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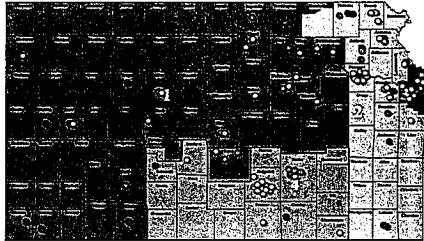
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# KAMS Maps

## 2012 - 2013 KAMS DATA by City and Congressional Legislative Districts

Legend

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6	6
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- Olathe/Pleasanton - Class of 2011 (14)
- Olathe/Pleasanton - Class of 2012 (29)
- International Students - South Kansas (1)
- Baraboo/Wisconsin - Class of 2013 (27)
- International Students - South Kansas (1)(China (1)
- Aurora/Wisconsin - Class of 2014 (39)
- International Students - South Kansas (2)(China (2)

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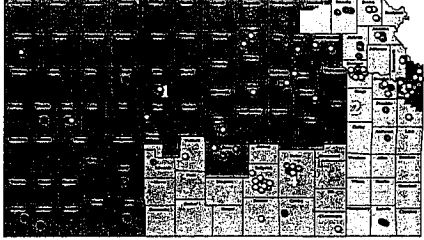
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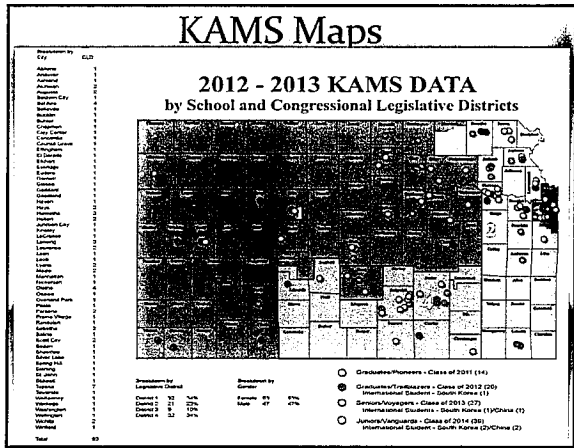
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## Why Fort Hays State University?

- Excellent academics
- FHSU's focus on research, leadership development and civic engagement to complement mathematics and science program
- Cross-campus involvement in planning & development
- Small classes taught by PhD faculty
- Safe campus & community

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### About FHSU

- Located in Hays –population approximately 20,000
- Established in 1902
- Liberal & applied arts university
- 60+ majors
- Modern lab facilities

- Technology-rich environment
- 13,000 students:
  - 5,000 students on campus
  - Approx. 4,510 students online through Virtual College
  - Approx. 3,620 students at partner universities in China

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## Academics

- KAMS students will take regular college courses, integrated with FHSU students
- KAMS students must maintain a 3.0 GPA – higher than a “typical” FHSU student!
- Upon completion of KAMS – students receive a completion certificate and a high school diploma from their home school

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## Research Opportunities

- Gain hands-on research experience with PhD-level faculty
- Develop research skills during your junior year
- Conduct research over the summer or during your senior year
- Make a professional presentation before graduation



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## Research Opportunities

- Carbon Sequestration
- Energy from residual yard wastes, including methods of producing methane
- The effects of temperature on tornado frequency in the US
- The relationship between the size of a wind farm and its cost efficiency
- The effect of sea surface temperature on the frequency of hurricanes
- The relationship between recycling belief in anthropogenic climate
- Kansas wheat yield and temperatures



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## Junior Year Courses

### Fall Semester:

- Pre-Calculus
- University Chemistry I & Lab
- Geosciences: Research and Writing
- English Composition I
- US History before 1877

17 Credit Hours



### Spring Semester:

- Analytic Geometry & Calculus I
- University Chemistry II & Lab
- English Composition II
- US History after 1877

16 Credit Hours

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## Senior Year Courses

### Fall Semester:

- Calculus II
- Principles of Biology
- Physics for Scientists & Engineers I
- Fundamentals of Oral Communication
- Departmental Research & Writing

18 Credit Hours



### Spring Semester:

- American Government
- Computer Science Elective
- Physics for Scientists & Engineers II
- Issues in Leadership: Global Challenges
- Departmental Research & Writing

17 Credit Hours

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## Advising

### The KAMS staff will:

- Coordinate transfer of records with each sending school
- Establish academic articulation agreements with each sending school
- Ensure that state assessments are conducted and scores submitted to each sending school
- Register students for classes
- Actively monitor student progress/performance
- Assist students with college application process
- Assist students with test registration such as SAT &

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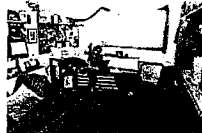
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## Living Community

- All students live in Custer Hall  
Custer Hall renovated for KAMS program  
Tigers Den



- Supervision  
Live-in professional staff, curfews and check-in/check-out procedures  
KAMS offices located in Custer Hall



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- Safety  
Student safety is first and foremost  
FHSU Police Department located in Custer Hall



- Conduct Code  
Attendance is a privilege, not a right. Negative behaviors will result in negative consequences



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## Student Life

- The Kansas State High School Activities Association allows non-athletic activities, but no League or State-level competition for KAMS students
- Currently available:
  - KAMS-specific clubs and activities such as student government & prom
  - Membership in FHSU clubs and organizations such as marching band & departmental clubs
  - Recreational and cultural events on campus such as intramurals & fine arts series
  - Specialized programming by KAMS staff
  - Trips to other Regents institutions & to Kansas business & industry



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## Evaluation of Applicants

### Holistic evaluation:

- Overall GPA
- ACT/SAT scores
- GPA in relevant classes
- Class rank
- Student Essays
- Teacher evaluations
- Leadership qualities
- Maturity & motivation
- Phone interview



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## Characteristics of a Successful KAMS Student

- Enjoys mathematics and science
- Un(der)challenged in school
- Demonstrates maturity and dedication
- Willing to live away from home
- Willing to take risks
- Willing to work hard
- Willing to be part of a group
- Exhibits high personal standards



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## Preparing for KAMS

### The more students can prepare ahead of time, the better

- Take ACT/SAT in fall of sophomore year (or earlier)
- Complete Pre-calculus, if possible
- Take all PE & foreign language credits
- Take all school-specific credits



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# Costs

## • Tuition and fees

Transfer of base state aid from sending school to KAMS, so free for Kansas public school students

## • Computer

Provided by KAMS funding

## • Textbooks

Provided by state appropriation

\* International students pay \$30,000 per year to attend KAMS

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## Responsibility of Students/Families:

### • Housing (includes the meal plan)

- \$7,130 in 2012/13
- Working to develop private funding for scholarships

### • Transportation to/from campus

### • Incidentals (snacks, spending money)

# Timeline

- November 10, 2012: KAMS Preview Day on FHSU campus
- January 1, 2013: Application deadline
- February, 2013
  - US applications reviewed
  - Phone interviews
- March, 2013
  - Phone Interviews
  - Students Notified



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# KAMS STAFF



Ron Keller  
Director



Roger Schelbrecht  
Assoc. Director for  
Student Services



Angela Delizio  
Coordinator for Marketing  
and Recruitment



Ann Noble  
Financial  
Administrator



Melissa Myers  
Administrative Assistant

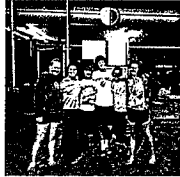
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## Final Thoughts



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## Q & A



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## Contact KAMS

**Website:**

[www.fhsu.edu/kams](http://www.fhsu.edu/kams)

**Email:**

[kams@fhsu.edu](mailto:kams@fhsu.edu)



[www.fhsu.edu/kams](http://www.fhsu.edu/kams)

**Phone:**


Office: (785) 628-4690

Director: (785) 628-5973

**Address:**

600 Park Street

Hays, KS 67601

KAMS is on 

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## KAMS Student Accomplishments

- 3 National Merit finalists, several named semi-finalist and commended scholars
- 3 students placed 1<sup>st</sup> in their divisions in Regional Science & Engineering Fair
- Placed 1<sup>st</sup> & 2<sup>nd</sup> in State Science & Engineering Fair
- 2 students attended INTEL Science & Engineering Fair in California with 1 student earning Honorable Mention by the American Meteorological Society and Google Recognition
- Student placed 1<sup>st</sup> at Junior Academy of Science
- KAMS team won FHSU Scholars Bowl
- KAMS team participated in Regional Academic Scholars Bowl competition
- Received multiple prestigious scholarship offers from Regent Universities including: FHSU, KSU, KU and WSU
- Students offered Putnam Scholarships
- Student member of the American College of Chest Physicians
- Students offered Watkins-Berger Scholarships
- Student received National Award for Aspirations in Computing – 1 of 35 from 900 applications, only Kansas student awarded
- Students held leadership positions in Fort Hays Honor Society, and student government
- Multiple students in FHSU marching band, choral groups, FHSU theatre productions
- Student selected for summer internship
- Students active in Residence Hall council
- Student serving on Judicial Board
- Student selected as VIP Ambassador
- Student presented at the American Association of Cereal Chemists conference in Palm Springs
- Students involved in service projects on campus and in the community

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## Highlighted Accomplishments

- 3 National Merit finalists, several named semi-finalist and commended scholars
- 2 students attended INTEL Science & Engineering Fair in California with 1 student earning Honorable Mention by the American Meteorological Society and Google Recognition
- Received multiple prestigious scholarship offers from Regent Universities including: FHSU, KSU, KU and WSU
- Students held leadership positions in Fort Hays Honor Society, and student government
- Students involved in service projects on campus and in the community

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## Admission & Selection

### Requirements

Algebra II and Geometry successfully completed before enrollment at KAMS (Pre-calculus & Chemistry preferred)

Minimum 23\* composite on ACT or minimum 1590\* on SAT



\*Subject to Change

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