Dear parent/guardian and student,

Thank you for your interest in the SFA STEM Academy, a partnership of SFA’s STEM Research & Learning Center and Nacogdoches High School. This is an exciting program that offers students opportunities to engage more deeply with Science, Technology, Engineering, and Mathematics, through elective curriculum at Nacogdoches High School and laboratory and field experiences led by SFA faculty on our campus. The curriculum emphasizes both STEM study and careers. If your student is interested in these fields, please review the enclosed materials together and encourage him or her to apply for the academy. Enclosed, you will find:

1. Overview of the STEM Academy
2. General Admissions Criteria
3. Examples of Student Schedules
4. Expectations of Academy Students, and
5. General Application Form.

If you would like to learn more, please attend the parent meeting scheduled for February 9, 5:15 p.m., at Mike Moses Middle School. Please review documents 1 through 4 before completing the application form to be sure that the student requesting admission into the academy meets the set standards and understands the rigor of the academic coursework and expectations. Please note that student schedules enclosed are examples and are subject to change.

The student requesting admission into the SFA STEM Academy should complete the General Application Form. Then the student should return the following documents in an envelope to their appropriate school counselor no later than February 23.

- the completed application form,
- sealed teacher recommendation letter, and
- middle school report cards.

Students who submit an application will also be asked to write an essay and complete and interview at a later date.

We are excited about this opportunity to work with NISD students. Please feel free to contact your appropriate school counselor or Dr. Jane Long (longjh@sfasu.edu) if you have any questions.

Thank you,

Jane Long, Ph.D.
Associate Professor of Mathematics and SFA STEM Academies Coordinator
**SFA STEM Academy**  
**Program Overview**

**Mission:** The mission of the SFA STEM Academy is to engage high school students in real-world applications of the STEM disciplines within an encouraging community of SFA faculty and high school teachers who support and inspire them both academically and interpersonally.

**Program Components**

- Rigorous coursework in science and mathematics
- A unique STEM elective course taught at the high school campus
- Research, field-based, and laboratory experiences led by SFA faculty on SFA’s campus approximately 6 times each semester during the regular school day
- Focus on problem-based, student-centered investigation
- Cohort design to encourage a community of support for students and to facilitate ease of scheduling
- Selective pathways for upper-level students allowing investigation of specific areas of interest through specific coursework and small-group research projects
- Focus on STEM career options and opportunities to meet well-established professionals in various fields
- Opportunities for dual credit coursework through SFA and AP coursework through NHS
- Distinguished high school diploma with STEM Endorsement

This is a selective program geared towards academically capable, self-directed students with a strong interest in careers in STEM (Science, Technology, Engineering, and Mathematics) fields. Students may select different pathways for their course of study (below).

- **Chemical and Life Sciences Pathway**
  - Biology
  - Biotechnology
  - Applied Chemistry

- **Mathematics and Engineering Pathway**
  - Applied Physics
  - Applied Mathematics
  - Engineering

- **General STEM Pathway**
  - Biology and Applications
  - Chemistry and Applications
  - Mathematics and Applications
  - Physics and Applications
SFA STEM Academy

General Admissions Criteria

Admission Criteria:

Requirements to be eligible for admissions into the SFA STEM Academy are:

a)  Minimum of a 85 average in all core science and math courses from grades 7 and 8
b)  Successful completion of Pre-AP Algebra 1 prior to entering the academy in grade 9

c)  Excellent attendance in grades 7 and 8 constituting a 95% cumulative attendance record over the 2-year period. (Special circumstances will be taken into consideration on a case-by-case basis)

Please note that a review of student conduct throughout grades 7 and 8 will also be conducted.

Application Process:

A 3-part application process will be utilized for the selection of academy students who meet the above eligibility requirements. The 3-part application process includes:

1.  A completed general application form which includes an evaluation by a 7th or 8th grade math or science teacher (20 points)
2.  A handwritten essay response to a prompted question (20 points)
3.  An interview (15 points)

Each application will be graded based upon set criterion for each part of the 3-part application process. An applicant’s advancement to the next phase of the application depends solely upon his/her score on the previous part(s). Each student application will be reviewed and scored by at least two SFA STEM Academy personnel. Once all applications for each successive part of the process have been reviewed, students will be notified promptly as to whether or not they have advanced to the next phase of the application process.
**SFA STEM Academy**

**General Application Form**

*Please complete the following packet and submit it in an envelope to your school counselor.*

**STUDENT INFORMATION (please print clearly)**

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<td>Address:</td>
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<td>City:</td>
<td>Zip Code:</td>
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<td>School Name:</td>
<td>Grade:</td>
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<td>School District (ISD):</td>
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<td>Male or Female:</td>
<td>Ethnicity:</td>
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**PARENT/GUARDIAN INFORMATION (please print clearly)**

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<td>Email Address:</td>
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<td>Home/Work Phone:</td>
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<td>Alternate Contact:</td>
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**Student Questions (Please answer):**

1. Do you meet the eligibility requirements to be in this academy?

2. Have you completed Pre AP Algebra 1?

3. Have you attended the SFA iMAS Academy? If so, which year?
**Other Items to Submit:**

1. Please select one of your 7th or 8th grade math or science teachers to write a letter of recommendation for you. Please provide them with the form attached to this packet. You should receive the letter of recommendation back from them in a sealed envelope which you will include when return this packet to your counselor.

2. Please provide a copy of your 7th/8th grade transcript in your packet (your counselor should be able to do this for you).
SFA STEM Academy: Teacher Evaluation of Student Applicant

Student Name ____________________

Teacher Name ____________________

**Learning Characteristics**

The student demonstrates ...

1. Analytical reasoning ability that aids in understanding complex material.

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2. An ability to deal with abstractions.

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3. An ability to transfer learning between different situations.

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**Creativity Characteristics**

The student demonstrates ...

1. An ability to develop unique or clever responses.

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2. An ability to adapt, improve, or modify ideas.

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3. A non-conforming attitude.

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**Comments (REQUIRED):**
Motivation Characteristics

The student demonstrates ...

1. behavior that requires little direction from teachers.

2. persistent work on tasks even when setbacks may occur.

3. follow-through behavior when interested in a topic or problem.

4. little need for external motivation to follow through in work.

Mathematics Characteristics

The student ...

1. is eager to solve complex math problems.

2. has unique or creative ways of solving math problems.

3. understands new mathematical concepts easily.

4. while solving a math problem, can switch strategies easily if necessary.

5. can use a variety of representations to explain mathematical concepts (pictorial, graphic, written, etc...).