Rosa Fort High School/David Williams, Jr. Career and Technical Center

Science, Technology, Engineering, and Mathematics (S.T.E.M.)

Syllabus

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1. COURSE DESCRIPTION

Science, Technology, Engineering, and Mathematics (STEM) Applications is an innovative instructional program that prepares students to engage in future academic and vocational courses of study in high school, community college, and institutions of higher learning. Students in STEM Applications complete study in Leadership, Interpersonal, and Self‐Directional Skills; Preparing for the 21st Century Workforce; Health Services Technology; Business, Management, and Administration; Arts, A/V Technology, and Communication; Marketing, Sales, and Services; Finance; Hospitality and Tourism; Information Technology; Agricultural, Food, and Natural Resources; Transportation, Distribution, and Logistics; Education and Training; Health Science; Human Services; Law, Public Safety, Corrections, and Security; Government and Public Administration; Architecture and Construction; Manufacturing; and Science, Technology, Engineering, and Mathematics.

1. PREREQUISITES

None

* 1. COURSES/GOALS/OBJECTIVES
1. Develop science, technology, and engineering skills.
2. Improve recruitment among students into science, technology, and engineering fields.
3. Utilize technological systems to solve problems related to predictable and unpredictable real‐world situations.
4. Create a comprehensive course that includes academic skills, career and technical topics, and 21st century skills.
5. Develop a state‐of‐the‐art secondary 1‐year pre‐engineering program.
6. COURSE OUTLINE

This course will cover the following topics:

|  |  |
| --- | --- |
| 1. Orientation and Ethics
 | 1. Sustainable Design and Technology
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| 1. Technology Literacy
 | 1. Power and Energy
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| 1. The Design Process
 | 1. Robotics Simulation
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| 1. Emerging Technologies (ongoing)
 | 1. Financial and Economic Literacy
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| 1. Computer Aided Drafting
 | 1. Workplace Skills: School to Careers
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1. TEXT AND REQUIRED SUPPLIES

Textbook: Textbooks will be provided by the school.

1. GRADING PLAN

A = 90% - 100%

B = 80% - 89%

C = 70% - 79%

D = 65% - 69%

F = 64% and below

1. EVALUATIONS

 Coursework will be weighted as follows;

1. Tests/Quizzes
2. Assignments
3. Projects
4. Exams
5. REQUIREMENTS
6. Students will be required to come to class each day to receive the most from this program. Students are also required to use Canvas for additional course materials, discussions, homework, assignments, and tests.
7. Students are asked to pay a one-time lab fee of $5.00.
8. Students are also required to join Technology Student Association (TSA), the student organization for S.T.E.M. The amount of dues per student is $15.00 (if you would like a t-shirt). Look at the below for a breakdown of the amounts for dues.

|  |  |
| --- | --- |
| Dues | Amount |
| National Dues | $10.00 |
| State Dues | $4.00 |
| Local Dues | $1.00 |
| Total | $15.00 |

Parental Acknowledgement Form

Parents: Please read, sign, and return the syllabus by the end of the week.

Student’s Signature: Date:

Parent’s Signature: Date:

Teacher’s Signature: Date: