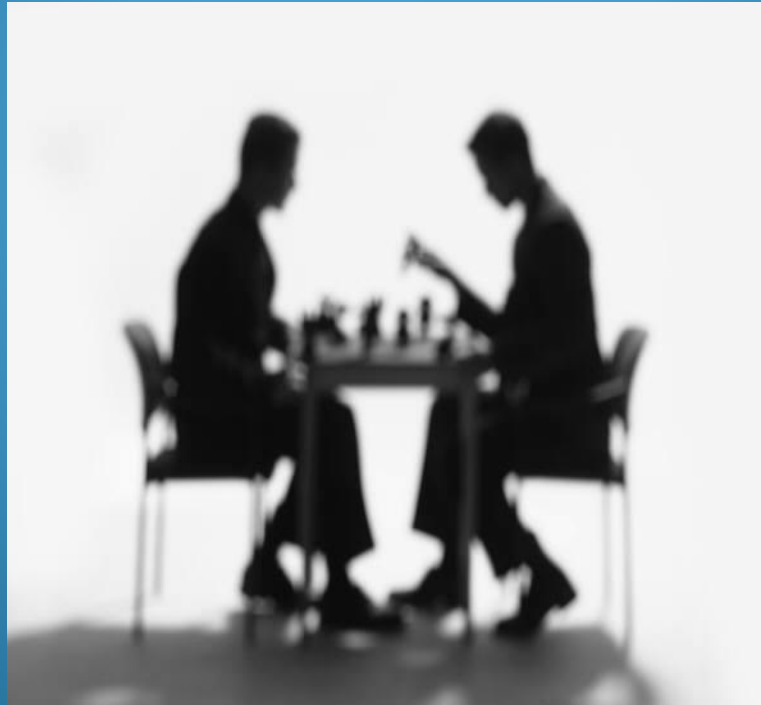
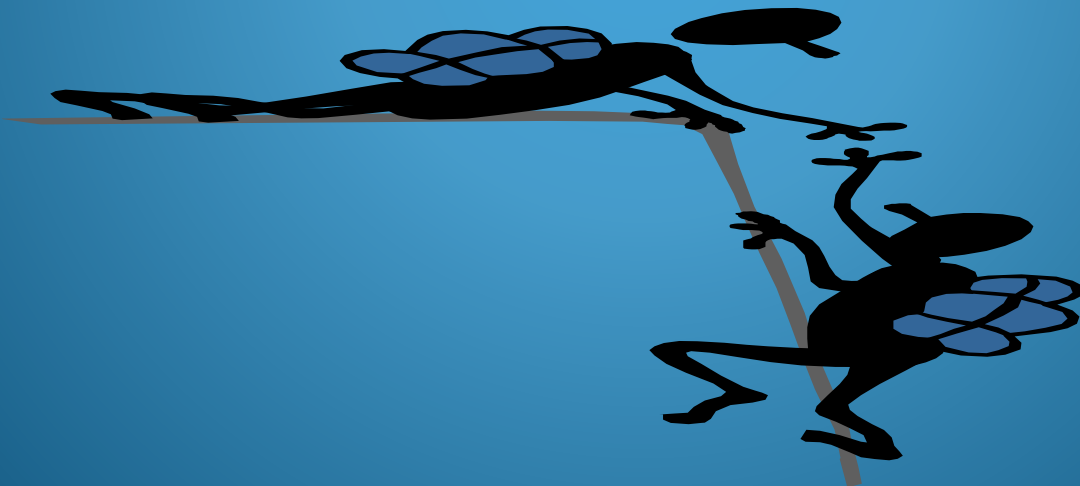


# *“Strategic Scheduling”*



# Helping students Help themselves Succeed

**Aim:** To better reach the **Determination** stage of the **Aspirations Model** by scheduling meaningful courses for the 2015-16 school year, which are relevant to my graduation map, postsecondary Education and Career Action Plan (ECAP), and curiosity.



# Postsecondary Education and Career Action Planning!





# Aspirations Model

Quaglia Institute

**Imagination**: Sets goals for the future but does not put forth the effort to reach those goals.

**Hibernation**: Has no goals for the future and puts in no effort in the present.

**Determination**: Sets goals for the future and puts forth effort in the present to reach those goals.

**Perspiration**: Works hard in the present, but has no goals for the future.

# Three (3) Key ECAP Student Questions:

- 1) What are your **future career plans**?
- 2) What are your **postsecondary education plans** that will allow you to reach your future career goals?
- 3) **What are you doing now** to prepare yourself to successfully complete your postsecondary educational needs and reach your future career ambitions?





# HHS Education and Career Action Plan (ECAP) 3-Step Model--Reaching the Determination stage of the Aspirations Model !

- 1) **Discover your *Element*** (Sir Ken Robinson)...  
Natural Aptitudes  $\leftrightarrow$  Personal Passions
- 2) **Career Pathways (Future Goals)...**
  - A) What jobs align with your Element?
  - B) What postsecondary *education, training, skill-sets, and credentials* are required to enter jobs related to your *Element*?
- 3) **Present Efforts...**
  - A) HHS strategic course-curriculum scheduling
  - B) Co-curricular and outside of school activities



**CURIOSITY** is the  
harbinger/precursor of  
learning and intellectual  
growth!



# HHS

# Graduation

# Requirements





How many **total credits** do you need to graduate high school in the state of Arizona?



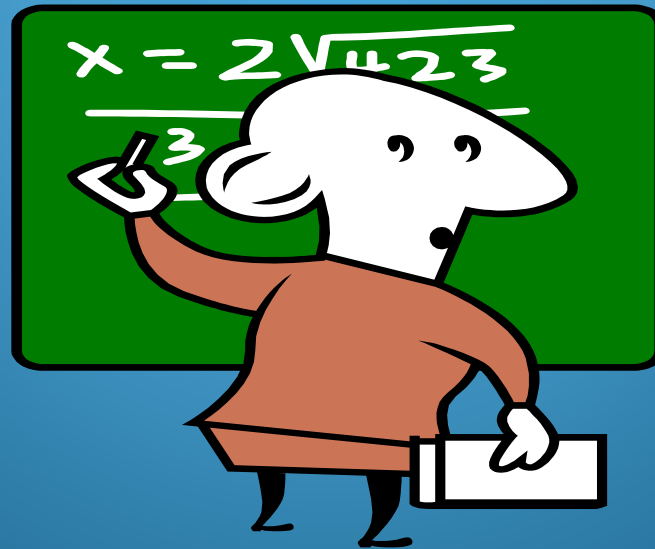
“22”



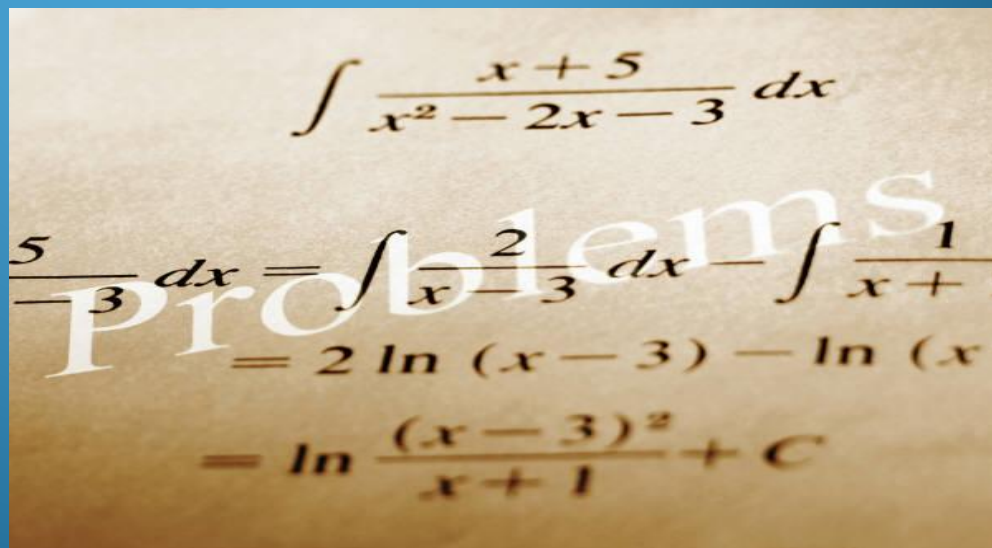
How many **math credits**  
do you need for high  
school graduation?



“4”



What is the highest level of math you need in order to graduate from high school in the state of Arizona?

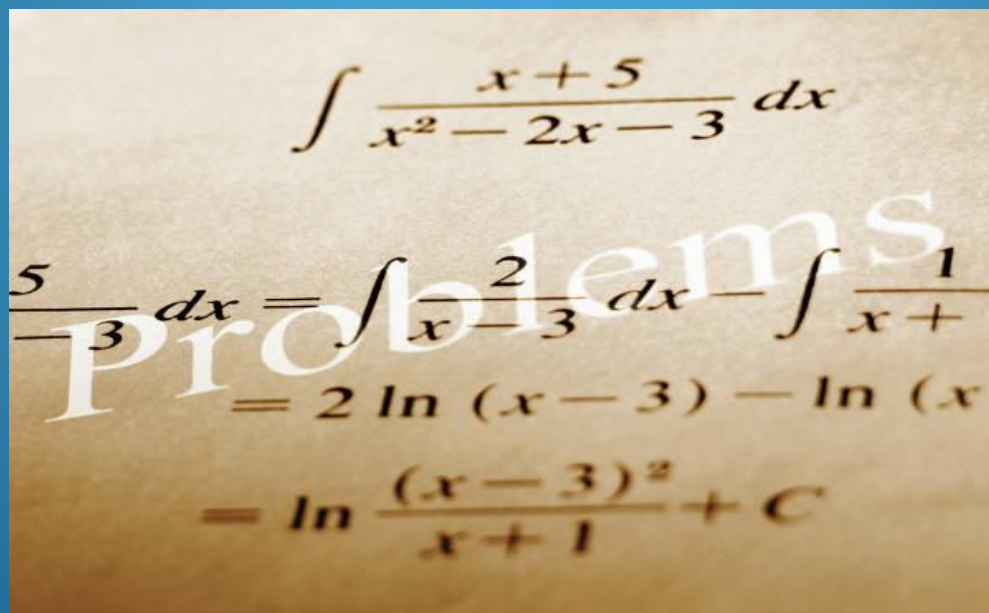


The image shows a handwritten mathematical solution on a piece of paper. The word "Problems" is written in a large, light-colored, serif font across the middle of the page. The solution is as follows:

$$\int \frac{x+5}{x^2-2x-3} dx$$
$$\frac{5}{-3} dx = \int \frac{2}{x-3} dx - \int \frac{1}{x+1} dx$$
$$= 2 \ln (x-3) - \ln (x+1)$$
$$= \ln \frac{(x-3)^2}{x+1} + C$$



# “Advanced Algebra” or an *equivalency*



A photograph of a piece of paper with handwritten mathematical work. The work shows the integration of a rational function using partial fractions. The first line is the integral of (x+5)/(x^2-2x-3) dx. The second line shows the decomposition into two partial fractions: 5/3 dx plus the integral of 2/(x-3) dx minus the integral of 1/(x+1) dx. The third line shows the result of the integration: 2 ln(x-3) minus ln(x+1). The fourth line shows the final simplified result: ln((x-3)^2/(x+1)) plus a constant C. A large, semi-transparent watermark with the word 'Problems' is overlaid across the middle of the image.

$$\int \frac{x+5}{x^2-2x-3} dx$$
$$\frac{5}{3} dx = \int \frac{2}{x-3} dx - \int \frac{1}{x+1} dx$$
$$= 2 \ln (x-3) - \ln (x+1)$$
$$= \ln \frac{(x-3)^2}{x+1} + C$$

# HHS Advanced Algebra

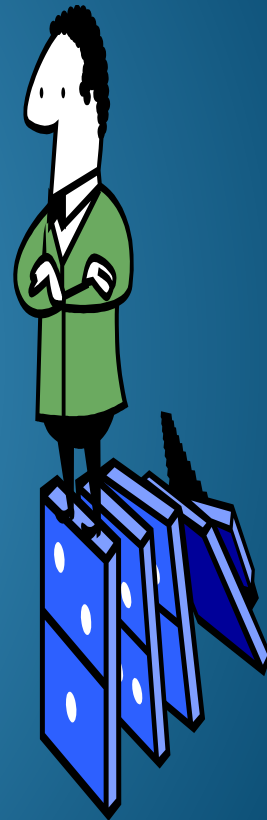
*equivalency...*

“Topics”



What **4-year math sequences** are correct?

- A) Pre-Alg  $\rightarrow$  Geom  $\rightarrow$  Alg II  $\rightarrow$  Trig
- B) Alg  $\rightarrow$  Geom  $\rightarrow$  Alg II  $\rightarrow$  Trig
- C) Pre-Alg  $\rightarrow$  Alg  $\rightarrow$  Trig  $\rightarrow$  Calculus
- D) Geom  $\rightarrow$  Alg II  $\rightarrow$  Trig  $\rightarrow$  Calculus
- E) Pre-Alg  $\rightarrow$  Alg  $\rightarrow$  Geom  $\rightarrow$  Alg II
- F) Alg  $\rightarrow$  Trig  $\rightarrow$  Geom  $\rightarrow$  Alg II



- B) “Alg  $\rightarrow$  Geom  $\rightarrow$  Alg II  $\rightarrow$  Trig”
- D) “Geom  $\rightarrow$  Alg II  $\rightarrow$  Trig  $\rightarrow$  Calculus”
- E) “Pre-Alg  $\rightarrow$  Alg  $\rightarrow$  Geom  $\rightarrow$  Alg II”

How would you use your ECAP to select a meaningful sequence?



What other academic  
discipline requires  
**4-credits** in order to  
graduate high school?

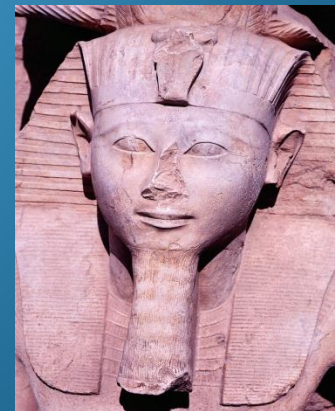
A)



B)

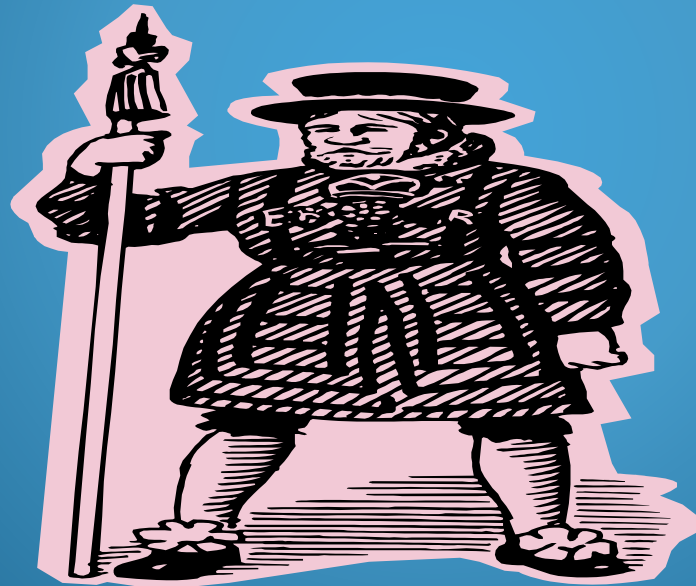


C)

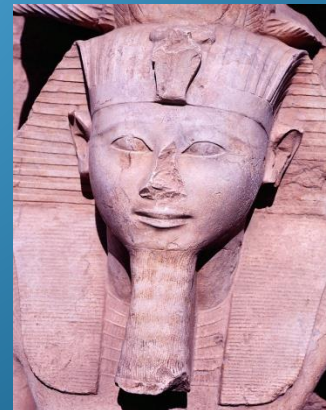
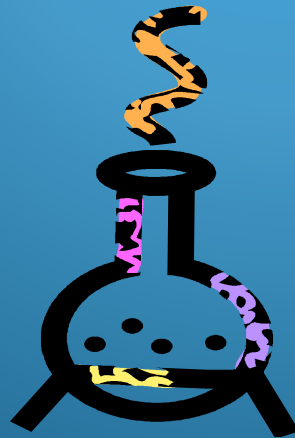




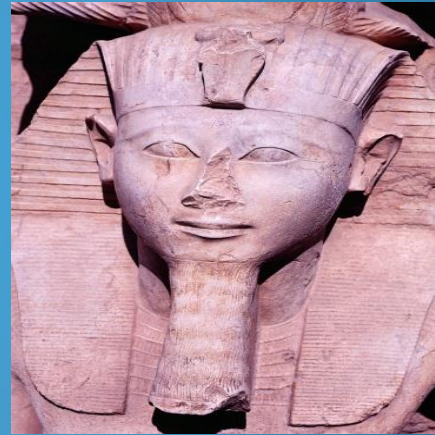
# “English”



What two academic  
disciplines require  
**3-credits** to graduate high  
school?

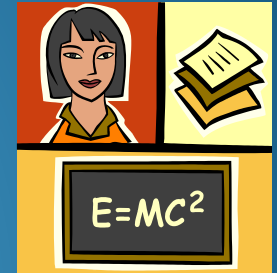
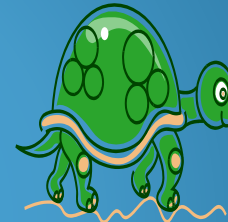


# “Science” & “Social Studies”

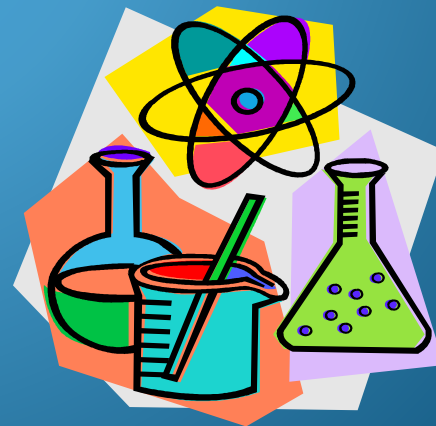


What is the first science course you take at HHS? Match the visuals and clarify each science subject matter. How would you apply your ECAP in deciding what science courses to take?

- A) General Biology
- B) Physical Science
- C) Earth Science
- D) General Chemistry
- E) Advanced Biology Botany or Zoology
- F) Anatomy & Physiology
- G) Advanced Chemistry
- H) Physics

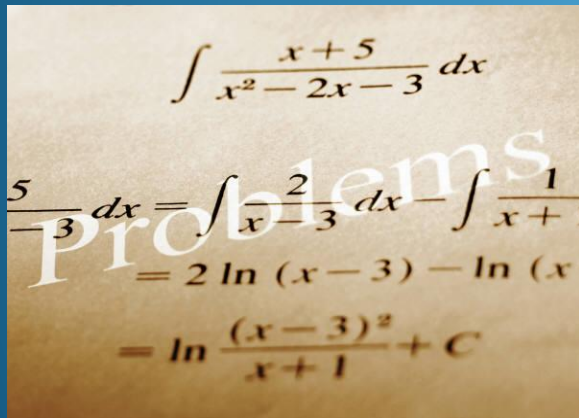


What other academic  
discipline is linked to  
**success in science?**





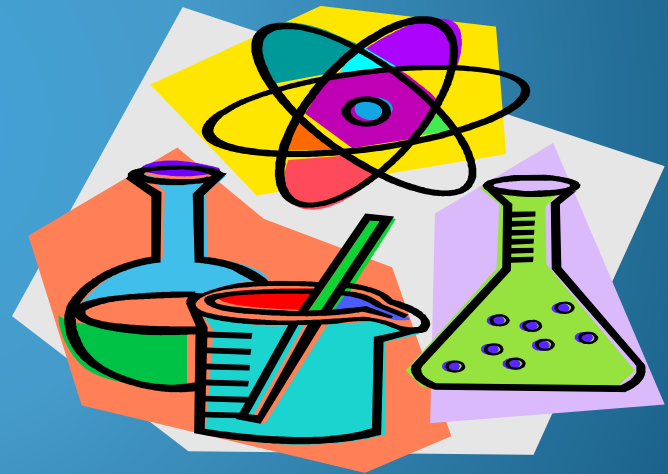
# “Math” $\leftrightarrow$ Science



Handwritten mathematical solution for a partial fraction problem:

$$\int \frac{x+5}{x^2-2x-3} dx$$
$$\frac{5}{-3} dx = \int \frac{2}{x-3} dx - \int \frac{1}{x+1} dx$$
$$= 2 \ln(x-3) - \ln(x+1)$$
$$= \ln \frac{(x-3)^2}{x+1} + C$$

The word "problems" is written diagonally across the middle of the page.



C and above in Algebra is vital to success in Physical Science or Chemistry as a sophomore! It is also a prerequisite!! (Along with passing General Biology.)

\*Some of you struggling in math might not want to take a science during your sophomore year. The addition of World History will be tough enough!

\*\*Sophomores taking Trigonometry may enroll in Physics.

# Math-Science Scheduling Flow Chart Examples

*“Non-math/science related ECAP”*

Grade Level	Math	Science
9 <sup>th</sup>	Pre Algebra	No Science
10 <sup>th</sup>	Algebra	General Biology
11 <sup>th</sup>	Geometry	Physical Science
12 <sup>th</sup>	Adv Alg/Topics	Earth Science

# Math-Science Scheduling Flow Chart Examples

*“Non-math/science related ECAP”*

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# Math-Science Scheduling Flow Chart Examples

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11 <sup>th</sup>	Geometry	Chemistry
12 <sup>th</sup>	Advanced Algebra	ECAP related science course



# Math-Science Scheduling Flow Chart Examples

## *“Math/science related ECAP”*

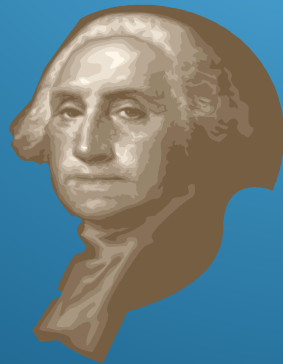
Grade Level	Math	Science
9 <sup>th</sup>	Algebra	General Biology
10 <sup>th</sup>	Geometry	1. Phy Science 2. Chemistry
11 <sup>th</sup>	Advanced Algebra	1. Chemistry 2. ECAP related science course
12 <sup>th</sup>	Trigonometry	ECAP related science course

# Math-Science Scheduling Flow Chart Examples

*“Math/science related ECAP”*

Grade Level	Math	Science
9 <sup>th</sup>	Geometry	General Biology
10 <sup>th</sup>	Advanced Algebra	Chemistry
11 <sup>th</sup>	Trigonometry	ECAP related science course
12 <sup>th</sup>	Calculus	ECAP related science course

What are the **four social studies courses** you take to graduate from high school? \*What **grade level** do you take each course at HHS? What two courses are **semester (.5 credit) based**?





“World History-  
Geography”  
\*10<sup>th</sup>



“U.S./AZ History”  
\*11<sup>th</sup>



“U.S./AZ  
Government”  
\*12<sup>th</sup>  
.5 semester



“Economics”  
\*12<sup>th</sup>  
.5 semester

4 math +

4 English +

3 science +

3 social studies credits = 14 credits



\*What are **two other graduation requirements** at HHS?



“Health” (.5 sem.) AND “P.E.” (.5 sem.) credit



“CTE” or “Fine Art” credit



“16 required credits”

+ 6 elective credits = 22



# Required high school credits for enrollment into a 4-year university in the state of Arizona:

- 4 credits of English
- 4 credits of Math with **Algebra being the lowest (must matriculate to Trigonometry)**
- 3 credits of **Lab Science** (Phy. Sci. is not a lab science)
- 3 credits of Social Studies
- 2 credits of a **Second Language**
- 1 credit of a **Fine Art**



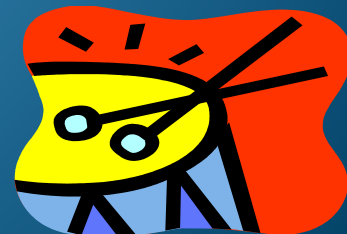
## **Sophomore CTE Foundation Courses** at HHS/ NPC dual enrollment maximum credit opportunities

- Automotive Repair (Mr. McPherson)
- Business (Mr. Madison)
- Child Development/24-credits (Mrs. Carlson)
- Computer Aided Drafting/24-credits (Mr. Mendell)
- Construction (Mr. Tubbs)
- Multi Media/12-credits (Mrs. Novell)
  - \*Certificate of Proficiency in Graphic Design—18 credits  
with 2-period block
- Robotics/9-credits (Mrs. Novell)
- Welding/14-credits (Mr. Larsen)

\*What do these **real-world career courses** relate to and what are some ways you can creatively **leverage** these courses via your ECAP?

# Fine Arts Courses at HHS

- Drama
- Beginning Art; Ceramics/Painting; Art History; and AP Studio Art (Mr. Hawk)
- Concert-Marching Band; Movin; and Piano (Mrs. Meeks)
- Pride, Select and Show Choirs (Mr. Gardner)
- Fusion; Fuse; and Guitar (Mr. Obren)





Creative ways to leverage CTE, fine arts, and academic disciplines at HHS...

**“Architect”**: Geometry/Trig + CAD + Art and Art History!



**“Engineer”**: Calculus + Physics + CAD + Robotics!



**NAVIT** (Northern Arizona Vocational Institute of Technology). NAVIT is a career and technical education program that is partnered with **Northland Pioneer College**. These programs provide career training at a college level and the students that participate **earn college credit** and in some cases state and national certifications/credentials.

You can **apply for the NAVIT programs toward the end of your sophomore year** as long as you meet the following criteria:

- Have a minimum **2.0 GPA**
- Have a **good attendance and tardy** record
- Have a **good discipline** record (no less than 70 points)
- Are **on track to graduate** (not failing any core requirement classes)

\*Some of the programs do have other qualifying requirements per N.P.C.

## NAVIT Junior/Senior year OPTIONS:

- Certified Nursing Assistant (1 sem. program offered senior year; 12 college credits).
  - Construction Technology (4 semester program; 48 college credits).
  - Cosmetology (4 semester program; 40 college credits).
  - \* Education Profession (2 semester program new in 2014-15; 20 coll. cr.)
  - Fire Science (2 semester program offered senior year; 30 college credits).
  - Industrial Maintenance and Operations (4 semester program; 48 college credits).
  - \* Mechatronics (4 semester program new in 2014-15; 44 college credits).
  - Medical Assistant (4 semester program; 48 college credits).
  - Welding (4 semester program; 56 college credits).
- \*How could you **leverage/parlay** NAVIT training and credentials to facilitate **vertical postsecondary education and career movement** or to financially support other career pursuits?

# NPC-HHS Dual Enrollment offerings:

- **AP English 12** (freshman college English 101/102 6-credits)
- **Trigonometry** (college Adv. Alg. 152 3-credits and college pre-calculus 189 3-credits)
- **Calculus** (college Calculus 8-credits)
- **Navajo I** (4 college language credits) and **Navajo II** (4 college language credits)



## Other important information and resources:

Students are strongly encouraged to take the **PLAN** (pre-ACT assessment) during their sophomore year; the **PSAT** (National Merit Scholarship candidates) and **ASVAB** (especially if interested in the military) during their junior year; begin taking the **ACT** college entrance exam during junior year; and complete the **FAFSA** during January of their senior year. Students are also strongly encouraged to explore the **College Readiness** course offered at HHS, utilize the **Career Center** as a valuable personal resource (see Mrs. White), and contact Ms. Percy regarding **financial aid, scholarship, and NPC Dual Enrollment information**.