



# SELECT COURSES FOR ENDORSEMENT

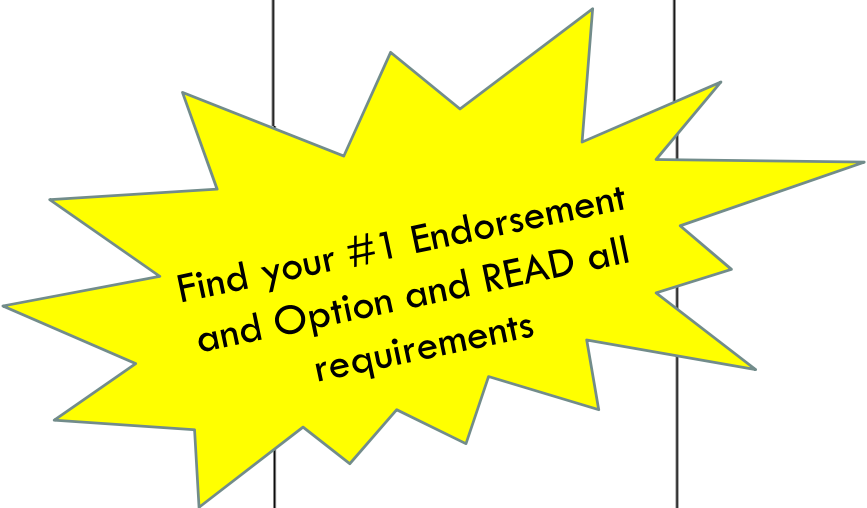


### Cypress-Fairbanks ISD - The Endorsements

A student must complete the Foundation High School Program (22 credits), one additional math credit, one additional science credit, and two additional elective credits while completing the specific requirements of his/her selected endorsement.

STEM <i>Science, Technology, Engineering, &amp; Math</i>	<b>Business &amp; Industry</b>	Public Services	Arts & Humanities	Multidisciplinary Studies
<p>Students may earn a STEM endorsement by selecting and completing the requirements from among these 5 options.</p> <p><b>Note:</b> Algebra II, Chemistry, and Physics are required for the STEM endorsement regardless of the option the student selects from below.</p> <p><b>Option 1: Computer Science</b> Students take 3 computer science courses.</p> <ul style="list-style-type: none"> <li>• Computer Science I K</li> <li>• Computer Science Principles AP</li> <li>• Computer Science II AP A</li> <li>• Computer Science III K</li> <li>• Project-based Research in Computer Science K</li> </ul> <p><b>Option 2: CTE</b> Students earn four (4) CTE credits by taking at least two (2) courses in the same cluster that lead to a final course in the STEM cluster. At least one (1) of the courses must be an advanced CTE course (3<sup>rd</sup> year or higher course in a sequence).</p> <p><b>Option 3: Math</b> Students take Algebra I, Geometry, and Algebra II AND two (2) of the following courses for which Algebra II is a prerequisite.</p> <ul style="list-style-type: none"> <li>• Pre-Calculus</li> <li>• Calculus AB or BC</li> <li>• Statistics AP</li> <li>• AQR K</li> <li>• Advanced Algebra</li> <li>• College Algebra K</li> </ul> <p><b>Option 4: Science</b> Students take Biology, Chemistry, and Physics, AND two (2) of the following courses.</p> <ul style="list-style-type: none"> <li>• AP Chemistry</li> <li>• AP Biology</li> <li>• Anatomy &amp; Physiology</li> <li>• AP Environmental Science</li> <li>• AP Physics I</li> <li>• AP Physics II</li> <li>• AP Physics C</li> <li>• Aquatic Science</li> <li>• Astronomy</li> <li>• Earth &amp; Space Science</li> <li>• Environmental Systems</li> <li>• Forensic Science</li> <li>• Engineering Design &amp; Problem Solving</li> <li>• Advanced Animal Science</li> <li>• Advanced Plant and Soil Science</li> <li>• Pathophysiology</li> </ul> <p><b>Option 5: Combination</b> Students take Algebra II, Chemistry, and Physics, an additional math course, an additional science course, AND three (3) additional credits from Option 1 (Computer Science) and/or Option 2 (CTE) in the STEM endorsement. Combination plan must include one (1) advanced CTE course.</p>	<p>Students may earn a Business &amp; Industry endorsement by selecting and completing the requirements from among these 3 options.</p> <p><b>Option 1: CTE</b> Students earn four (4) credits by taking at least two (2) courses in the same cluster in one of the following areas</p> <ul style="list-style-type: none"> <li>• Agriculture, Food, and Natural Resources</li> <li>• <b>Architecture and Construction</b></li> <li>• Arts, Audio/Video Technology, and Communication</li> <li>• Business Management and Administration</li> <li>• Finance</li> <li>• Hospitality and Tourism</li> <li>• Information Technology</li> <li>• Manufacturing</li> <li>• Marketing</li> <li>• Transportation, Distribution, and Logistics</li> </ul> <p>with at least one (1) advanced (3<sup>rd</sup> year or higher course in the sequence).</p> <p><b>Option 2: English</b> Students take four (4) English elective credits that include three levels in one of the following areas</p> <ul style="list-style-type: none"> <li>• Advanced Journalism: Newspaper or Yearbook</li> <li>• Debate</li> </ul> <p><b>Option 3: Combination</b> Students take a coherent sequence of four (4) credits from Option 1 or 2. Combination plan must include one (1) advanced CTE course.</p>	<p>Students may earn a Public Services endorsement by selecting and completing the requirements from among these 2 options.</p> <p><b>Option 1: CTE</b> Students earn four (4) credits by taking at least two (2) courses in the same career cluster in one of the following areas</p> <ul style="list-style-type: none"> <li>• Education and Training</li> <li>• Health Science</li> <li>• Human Services</li> </ul> <p>With a least one (1) advanced (3<sup>rd</sup> year or higher course in the sequence).</p> <p><b>Option 2: JROTC</b> Student takes four (4) JROTC courses for 4 credits.</p>	<p>Students may earn an Arts &amp; Humanities endorsement by selecting and completing the requirements from among these 2 options.</p> <p><b>Option 1: Social Studies</b> Students take five (5) social studies courses for 5 credits.</p> <p><b>Option 2: Languages Other Than English (Foreign Language)</b> Students take four (4) levels of the same foreign language.</p> <p style="text-align: center;">OR</p> <p>Students take two (2) levels of one foreign language AND two (2) levels of a different foreign language (two levels in each of two different foreign languages for 4 credits).</p> <p><b>Option 3: Fine Arts</b> Students take four (4) courses in the same fine arts area for 4 credits</p> <p style="text-align: center;">OR</p> <p>Students take two (2) courses in one fine arts area AND two (2) courses in a different fine arts area (two courses in each of two different fine arts areas for 4 credits).</p>	<p>Students may earn a Multidisciplinary Studies endorsement by selecting and completing the requirements from among these 2 options.</p> <p><b>Option 1: Four by Four (4 X 4)</b> Students take four (4) courses in each of the four core content areas.</p> <ul style="list-style-type: none"> <li>• Four (4) English credits including English IV</li> <li>• Four (4) math credit</li> <li>• Four (4) science credits including biology and chemistry and/or physics</li> <li>• Four (4) social studies credits</li> </ul> <p><b>Option 2: AP or Dual Placement (AP) courses for four (4) credits in English, math, science, social studies, foreign language, or fine arts.</b></p> <p style="text-align: center;">OR</p> <p>Students take four (4) Dual credit courses for four (4) credits in English, math, science, social studies, foreign language, or fine arts.</p>

EXAMPLE



1

Endorsement Chart pg. 7

**Business & Industry**

Students may earn a Business & Industry endorsement by selecting and completing the requirements from among these 3 options.

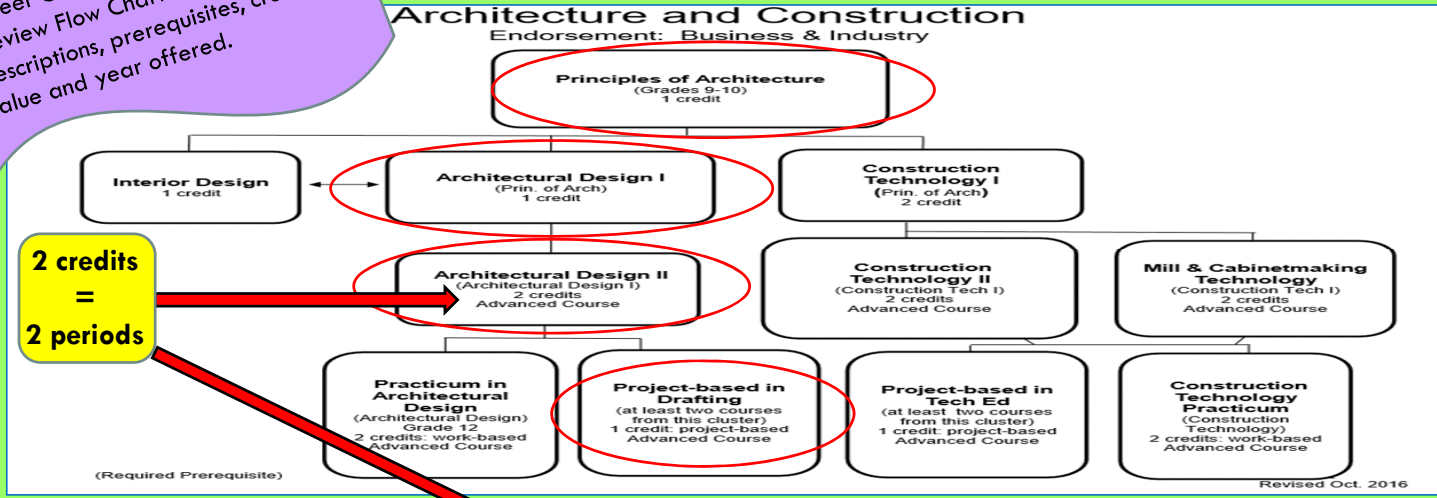
**Option 1: CTE**  
Students earn four (4) credits by taking at least two (2) courses in the same cluster in one of the following areas:

- Agriculture, Food, and Natural Resources
- Architecture and Construction**
- Arts, Audio/Video Technology, and Communication
- Business Management and Administration
- Finance
- Hospitality and Tourism
- Information Technology
- Manufacturing
- Marketing
- Transportation, Distribution, and Logistics

with at least one (1) advanced (3<sup>rd</sup> year or higher course in the sequence).

Ex. - pg. 17  
Career Cluster Flow Chart  
-Review Flow Chart and Course Descriptions, prerequisites, credit value and year offered.

2 credits = 2 periods



2

Ex. - pg. 17  
Sample Endorsement Course Sequence by Career Interest

**Business & Industry, Option 1 – Architecture and Construction – p. 24**  
(Earn at least 4 credits by taking at least two courses in this career cluster with at least one advanced course)

Career Interest	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Architecture	Principles of Architecture	Architectural Design I	*Architectural Design II (2)	*Practicum in Architectural Design (2) or *Project-based Research in Drafting
Construction	Principles of Architecture	Construction Technology I (2)	*Construction Technology II (2) or *Mill & Cabinetmaking Technology (2)	*Practicum in Construction Tech (2) or *Project-based Research in Tech Ed
Interior Design	Principles of Architecture	Interior Design	Architectural Design I	*Architectural Design II (2)




**EXAMPLE – STEM, OPTION 2 – CTE (ENGINEERING); (CAREER INTEREST – ENGINEERING)**

**Required for STEM**

Periods	High School Credits Earned in Middle School	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
<b>1</b>		English I	English II	English III	English IV
<b>2</b>	Algebra I	Math: Geometry K	Math: <b>Algebra II K</b>	Math: Pre-calculus K	Math: Calculus AB AP
<b>3</b>		Biology K	Science: <b>Chemistry K</b>	Science: <b>AP Physics I</b>	Science: <b>Eng. Design &amp; Problem Solving K</b>
<b>4</b>		PACE (.5) / Health (.5)	<b>Engineering Design &amp; Presentation I</b>	US History	Government (.5) & Economics (.5)
<b>5</b>		Football I	Football II	Football III	Football IV
<b>6</b>	Spanish I	Spanish II	Spanish III K	<b>Engineering Design &amp; Presentation II</b>	<b>Practicum In STEM</b>
<b>7</b>	<b>Principles of Applied Engineering</b>	World Geography	Art I D/P	<b>(2 periods)</b>	<b>(2 Periods)</b>



**EXAMPLE - BUSINESS & INDUSTRY, OPTION 1 – AG, FOOD, & NATURAL RESOURCES;** (CAREER INTEREST – VETERINARY SCIENCE)

Periods	High School Credits Earned in Middle School	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
1		English I	English II	English III	English IV
2		Math: Algebra I	Math: Geometry	Math: Algebra II	Math: Adv. Algebra
3		Biology	Science: Chemistry	Science: Physics	Science: <b>Advanced Animal Science K</b>
4		PACE (.5)/ Health (.5)	World History	US History	Government (.5) & Economics (.5)
5		Football I	Football II	Football III	Football IV
6		Spanish I	Spanish II	<b>Vet Med Appl.</b>	<b>Practicum in Ag</b> (2 Periods) 
7		<b>Principles of Ag</b>	<b>Equine Science (.5) &amp; Small Animal (.5)</b>	<b>Floral Design</b>	

**Also counts as Fine Art**

**Floral Design**



**EXAMPLE - PUBLIC SERVICES, OPTION 1 – EDUCATION & TRAINING;** (CAREER INTEREST – K-12 EDUCATION)  
**+ ARTS & HUMANITIES, OPTION 3 FINE ARTS-MUSIC (BAND)**  
**+ MULTIDISCIPLINARY, OPTION 1 4 X 4**

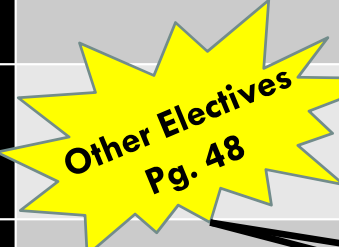
Periods	High School Credits Earned in Middle School	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
1		English I	English II	English III	English IV
2		Math: Algebra I	Math: Geometry	Math: Algebra II	Math: College Algebra K
3		Biology	Science: Chemistry	Science: Physics	Science: Earth & Space
4		PACE (.5)/ Health (.5)	Principles of Education & Training	US History	Government (.5) & Economics (.5)
5		Band I	Band II	Band III	Band IV
6	Spanish I	Spanish II	Spanish III K	Instructional Practices (2 Periods)	Practicum in Education & Training (2 Periods)
7		World Geography	World History		



**EXAMPLE - ARTS & HUMANITIES, OPTION 1 – SOCIAL STUDIES;** (CAREER INTEREST – HISTORY OR LAW)

+ **MULTIDISCIPLINARY, OPTION 1 4 X 4**

+ **MULTIDISCIPLINARY, OPTION 2 AP**

Periods	High School Credits Earned in Middle School	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
1		English I K	English II K	English III AP	English IV AP
2		Math: Algebra I	Math: Geometry K	Math: Algebra II K	Math: Precalculus K
3		Biology K	Science: Chemistry K	Science: Physics K	Science: Forensic Science K
4		FACE (.5)/Health (.5)	<u>World History</u> AP	<u>US History</u> AP	<u>Government</u> AP (.5) & <u>Economics</u> AP (.5)
5		Football I	Football II	Football III	Football IV
6	Spanish I	Spanish II	Spanish III K	Psychology AP (.5) & Sociology (.5)	World Area Studies K
7	Professional Comm. (.5)	<u>Human Geography</u> AP	Art I D/P	ACT/SAT Prep (.5) & Teen Leadership (.5)	PALS I



**EXAMPLE - MULTIDISCIPLINARY STUDIES, OPTION 1 – 4 X 4; (CAREER INTEREST – FASHION DESIGN)**  
**+ ARTS & HUMANITIES, OPTION 3 FINE ARTS COMBO**  
**+ BUSINESS & INDUSTRY, OPTION 1 ARTS, AV, & COMMUNICATION**

**Required for  
Multidisciplinary  
Studies**

Periods	High School Credits Earned in Middle School	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
1		English I	English II	English III	English IV
2		Math: Algebra I	Math: Geometry	Math: Algebra II	Math: ISM Adv. Algebra
3		Biology	Science: Chemistry	Science: Astronomy	Science: Aquatic Sci.
4		PACE (.5)/ Health (.5)	World History	US History	Government (.5) & Economics (.5)
5		Aerobic Activities	Fashion Design I	Fashion Design II	College Readiness & Study Skills (.5) & Psychology (.5)
6	Spanish I & II	Theatre Arts I	Theatre Arts II	(2 Periods)	PALS I
7		World Geography	Audio/Video Production I	Art I D/M	Art II D/M

**Other Electives  
pg. 48**

Fashion Design II  
(2 Periods)

College Readiness & Study Skills (.5) & Psychology (.5)  
PALS I





# NOW IT'S YOUR TURN!

1. Use the **Endorsement Chart** (pgs 7-8), **flow charts** & **sample course sequences** in the Student Booklet to help you choose the courses you need to earn an Endorsement.
2. Start with your 1<sup>st</sup> Endorsement choice and enter the courses needed for the Endorsement. Next move on to your 2<sup>nd</sup> Endorsement (if you have one) and add those courses to your 4-Year Plan, etc.
3. After adding the required Endorsement courses, add any additional electives you would like if you have spaces left on your 4-Year Plan. (**suggestions on page 48**)

## Remember:

*Any course that is 2 credits = 2 class periods (2 pds.)*

*3 credits = 3 class periods (3 pds.)*

*A one semester (.5) course must be paired with another (.5) course & placed in the same box on the 4-Year Plan worksheet*

*It is OK to use abbreviations – just make sure you can remember what class it is when you go to the computer lab to enter your choices in Career Cruising!*

