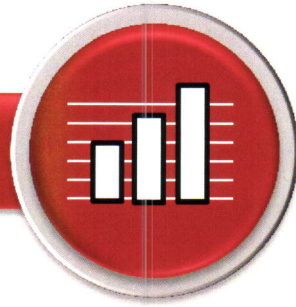


STEM



- A** Career and Technical Education (CTE)
- B** Computer Science
- C** Math
- D** Science
- E** Combination

Business & Industry



- A** English
- B** Technology Applications
- C** Career and Technical Education (CTE)
- D** Combination

Multidisciplinary



- A** Workforce (CTE)
- B** Foundations Subjects
- C** Advanced Placement or International Baccalaureate

Arts & Humanities



- A** Social Studies
- B** Language Other Than English (LOTE)
- C** Fine Arts
- D** English

Public Service



- A** Career and Technical Education (CTE)
- B** Junior Reserve Officer Training Corps (JROTC)



Within the requirements of the 26 credits to earn an endorsement, including Algebra II, chemistry, and physics, a student must complete one of the following course areas below to meet the STEM endorsement criteria.

A

Career and Technical Education (CTE)

A coherent sequence of courses for four or more credits in CTE that includes at least two courses in the same career cluster in **Table 1**, including at least one **advanced** CTE course (designated with **A**); and the final course in the sequence from the CTE career cluster courses from **Table 2**.

Table 1

Agriculture, Food, and Natural Resources			Law, Public Safety, Corrections & Security		
Principles of Agriculture, Food, Natural Resources	9-10	.5	Forensic Science A 11-12		1
Veterinary Medical Applications A	11-12	1			
Landscape Design & Turf Grass Management	9-12	.5			
Agricultural Mechanics & Metal Technologies A	11-12	.5			
Practicum in Agriculture: Vet Med Assistant A	12	2			
Architecture & Construction			Manufacturing		
Architectural Design A	11-12	1	Welding A	12	2
Advanced Architectural Design A	11-12	2			
Health Science			Science, Technology, Engineering, & Mathematics		
Principles of Health Science	10-12	1	Engineering Design & Presentation A	11-12	1
Medical Terminology A	9-12	.5	Honors Scientific Research & Design A	10-12	1
Health Science: Pharm Tech A	12	1	Honors Scientific Research & Design II A	11-12	1
Practicum in Health Science A	11-12	2	Honors Scientific Research & Design III A	11-12	1
Practicum in Health Science II A	12	2	Engineering Design & Problem Solving A	11-12	1
World Health Research A	11-12	1	Gateway to Technology PLTW 8		.5
Anatomy & Physiology A	11-12	1	Introduction to Engineering Design PLTW	9-10	1
Hospitality & Tourism			Principles of Engineering PLTW A	10-12	1
Food Science A	11-12	1	Aerospace Engineering PLTW A	11-12	1
Information Technology			Engineering Design and Development PLTW A	12	1
Internetworking Technologies I-Cisco A	11-12	1			
Internetworking Technologies II-Cisco A	11-12	1			
			Transportation, Distribution & Logistics		
			Automotive Technology	11-12	1
			Automotive Technology	11-12	2
			Advanced Automotive Technology A	11-12	2
			Collision Repair and Refinishing	11-12	2
			Advanced Collision Repair and Refinishing A	11-12	2

Table 2

Science, Technology, Engineering, & Mathematics	
Engineering Design & Presentation A	11-12
Honors Scientific Research & Design A	10-12
Honors Scientific Research & Design II A	11-12
Honors Scientific Research & Design III A	11-12
Engineering Design & Problem Solving A	11-12
Gateway to Technology PLTW 8	.5
Introduction to Engineering PLTW	9-10
Principles of Engineering PLTW A	10-12
Aerospace Engineering PLTW A	11-12
Engineering Design and Development PLTW A	12

B

Computer Science

A coherent sequence of four credits in computer science selected from the following:

- Computer Science I; Computer Science II; Computer Science III;
- AP Computer Science; IB Computer Science SL or HL;
- Game Programming and Design

C

Math

Three credits in mathematics including Algebra II and two additional math courses for which Algebra II is a prerequisite (for a total of 5 math credits)

	Credit 1	Credit 2	Credit 3	Credit 4		Credit 5
	Algebra I -or- Algebra I Honors	Geometry -or- Geometry Honors	Algebra II -or- Algebra II Honors	<ul style="list-style-type: none">• Precalculus or Precalculus Honors• AQR• MIS• AP Computer Science• AP Calculus AB (must be taken after Precalculus)• AP Calculus BC (must be taken after Precalculus)• AP Statistics (must be taken after or concurrently with Precalculus)		
IBHL	Algebra I Honors -or- Algebra I IH	Geometry Honors -or- Geometry IH	Algebra II IH	Precalculus IH	Math HL Year I (BC Calculus)	Math HL Year 2
IBSL	Algebra I Honors -or- IH	Geometry Honors -or- IH	Algebra II -or- Algebra II IH	Precalculus -or- Precalculus IH	Math SL	

**if in the IB program, must also satisfy requirements of the IB diploma*

D

Science

Four credits in science, including chemistry, physics, and two additional science courses (for a total of 5 science credits)

Credit 1	Credit 2	Credit 3	Credit 4	Credit 5
Biology -or- Biology PreAP	Chemistry -or- Chemistry PreAP	Physics or Physics PreAP , and any two courses selected from: <ul style="list-style-type: none"> • Anatomy and Physiology • AP Biology (1.5 AP Biology + 0.5 Honors Research & Design) • AP Chemistry (1.5 AP Chemistry + 0.5 Honors Research & Design) • AP Physics 1/2 • AP Physics C • Engineering Design and Problem Solving • Environmental Systems • AP Environmental Science • Honors Scientific Research and Design • Food Science • Forensic Science • Principles of Engineering (PLTW) 		
IB	Biology IH	Chemistry IH	Physics, IB Physics SL -or- Physics Pre-AP	Any two courses selected from— IB Physics HL IB Biology SL IB Biology HL IB Chemistry SL IB Chemistry HL Environmental Systems SL

E

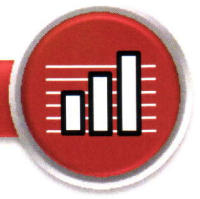
Combination

In addition to Algebra II, chemistry, and physics, a coherent sequence of three additional credits from no more than two of the categories above.

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All courses may not be offered on every campus. Check with campus counseling department for more information.

Business & Industry



Within the requirements of the 26 credits to earn an endorsement, a student must complete one of the concentration options below to meet the Business and Industry endorsement criteria.
(a fourth credit in mathematics, a fourth credit in science, one of the concentration options below)

A

English

Four English elective credits by selecting courses to include three levels in one of the following areas:

- Advanced Journalism: Newspaper
- Advanced Journalism: Yearbook
- Debate

B

Technology Applications

Four technology applications credits by selecting from the following:

- Digital Design and Media Production
- Digital Video and Audio Design
- Web Design
- Web Game Development

A coherent sequence of courses for four or more credits in CTE that includes

- At least two courses in the same CTE career cluster from **Table 1**, and
- At least one **advanced** CTE course from Table 1 (designed with **A**), and
- The final course from one of the CTE career clusters listed in **Table 2**

Note: Select a sequence of CTE courses that total 4 or more credits and meet the criteria above. The total number of courses is not a factor.

Table 1

Agriculture, Food, and Natural Resources	
Principles of Agriculture, Food, and Natural Res. 9-10	.5
Livestock Production 9-12	.5
Small Animal Management 9-10	.5
Small Animal Management 9-10	1
Equine Science A 11-12	.5
Veterinary Medical Applications A 11-12	1
Professional Standards in Agribusiness 9-12	.5
Wildlife, Fisheries, & Ecology Management 9-12	.5
Principles & Elements of Floral Design 11-12	1
Landscape Design & Turf Grass Management 9-12	.5
Horticulture Science 9-12	.5
Agricultural Mechanics & Metal Technologies A 11-12	.5
Practicum in Agriculture: Vet Med Assistant A 12	2
Practicum in Agriculture, Floral Design A 12	2
Architecture & Construction	
Interior Design 11-12	.5
Architectural Design A 11-12	1
Advanced Architectural Design A 11-12	2
Arts, A/V Technology & Communication	
Audio Video Production 11-12	1
Advanced Audio Video Production A 11-12	2
Digital Design & Media Production 9-12	1
Graphic Design & Illustration 11-12	1
Graphic Design & Illustration 11-12	2
Advanced Graphic Design & Illustration A 11-12	2
Fashion Design 11-12	1
Advanced Fashion Design A 11-12	2
Web Design A 9-12	1
Business Management & Administration	
Principles of Business, Marketing & Finance 9-11	.5
Touch System Data Entry 9-12	.5
Business Information Management I 9-12	1
Business Law A 11-12	.5
Global Business A 11-12	.5
Virtual Business A 9-12	.5
Finance	
Principles of Business, Marketing & Finance 9-11	.5
Accounting I A 11-12	1
Accounting II A 12	1
Health Science	
Principles of Health Science 10-12	1
Medical Terminology A 9-12	.5
Health Science: Pharm Tech A 12	1
World Health Research A 11-12	1
Anatomy & Physiology A 11-12	1
Hospitality & Tourism	
Principles of Hospitality & Tourism 9-10	.5
Restaurant Management 10-12	.5
Culinary Arts A 11-12	2
Practicum in Culinary Arts A 11-12	2
Food Science A 11-12	1
Human Services	
Principles of Human Services 9-12	.5
Dollars and Sense 10-12	.5
Interpersonal Studies A 11-12	.5
Lifetime Nutrition & Wellness A 10-12	.5
Child Development A 11-12	.5
Career Preparation I A 11-12	3
Career Preparation II A 12	3
Information Technology	
Principles of Information Technology 9-12	.5
Digital & Interactive Media 9-12	1
Internetworking Technologies I-Cisco A 11-12	1
Internetworking Technologies II-Cisco A 11-12	1
Video Game Design A 9-12	.5
Manufacturing	
Welding A 12	2
Marketing, Sales & Services	
Principles of Business, Marketing, & Finance 9-11	.5
Fashion Marketing 11-12	.5
Entrepreneurship A 11-12	.5
Sports & Entertainment Marketing 11-12	.5
Marketing Dynamics A 11-12	3
Practicum in Marketing Dynamics A 12	3
Science, Technology, Engineering & Mathematics	
Engineering Design & Presentation 11-12 A	1
Gateway to Technology PLTW 8	.5
Introduction to Engineering Design PLTW 9-10	1
Principles of Engineering PLTW A 10-12	1
Aerospace Engineering PLTW A 11012	1
Engineering Design & Development PLTW A 12	1
Transportation, Distribution, & Logistics	
Automotive Technology 11-12	1
Automotive Technology 11-12	2
Advanced Automotive Technology A 11-12	2
Collision Repair and Refinishing 11-12	2
Advanced Collision Repair and Refinishing A 11-12	2

A - Advanced

Science Credit

Fine Arts Credit

Table 2

Agriculture, Food, and Natural Resources		Hospitality & Tourism	
Principles of Agriculture, Food, and Natural Res. 9-10	.5	Principles of Hospitality & Tourism 9-10	.5
Livestock Production 9-12	.5	Restaurant Management 10-12	.5
Small Animal Management 9-10	.5	Culinary Arts A 11-12	2
Small Animal Management 9-10	1	Practicum in Culinary Arts A 11-12	2
Equine Science A 11-12	.5	Food Science A 11-12	1
Veterinary Medical Applications A 11-12	1	Information Technology	
Professional Standards in Agribusiness 9-12	.5	Principles of Information Technology 9-12	.5
Wildlife, Fisheries, & Ecology Management 9-12	.5	Digital & Interactive Media 9-12	1
Principles & Elements of Floral Design 11-12	1	Internetworking Technologies I-Cisco A 11-12	1
Landscape Design & Turf Grass Management 9-12	.5	Internetworking Technologies II-Cisco A 12	1
Horticulture Science 9-12	.5	Video Game Design A 9-12	.5
Agricultural Mechanics & Metal Technologies A 11-12	.5	Manufacturing	
Practicum in Agriculture: Vet Med Assistant A 12	2	Welding A 12	2
Practicum in Agriculture: Floral Design A 12	2	Marketing, Sales & Services	
Architecture & Construction		Principles of Business, Marketing, & Finance 9-11	.5
Interior Design 11-12	.5	Fashion Marketing 11-12	.5
Architectural Design A 11-12	1	Entrepreneurship A 11-12	.5
Advanced Architectural Design A 11-12	2	Sports & Entertainment Marketing 11-12	.5
Arts, A/V Technology & Communication		Marketing Dynamics A 11-12	3
Audio Video Production 11-12	1	Practicum in Marketing Dynamics A 12	3
Advanced Audio Video Production A 11-12	2	Transportation, Distribution, & Logistics	
Digital Design & Media Production 9-12	1	Automotive Technology 11-12	1
Graphic Design & Illustration 11-12	1	Automotive Technology 11-12	2
Graphic Design & Illustration 11-12	2	Advanced Automotive Technology A 11-12	2
Advanced Graphic Design & Illustration A 11-12	2	Collision Repair and Refinishing 11-12	2
Fashion Design 11-12	1	Advanced Collision Repair and Refinishing A 11-12	2
Advanced Fashion Design A 11-12	2		
Web Design A 9-12	1		
Business Management & Administration			
Principles of Business, Marketing & Finance 9-12	.5		
Touch System Data Entry (Keyboarding) 9-12	.5		
Business Information Management I 9-12	1		
Business Law A 11-12	.5		
Global Business A 11-12	.5		
Virtual Business A 9-12	.5		
Finance			
Principles of Business, Marketing & Finance 9-11	.5		
Accounting I A 11-12	1		
Accounting II A 12	1		

A - Advanced

Science Credit

Fine Arts Credit

D**Combination**

A coherent sequence of four credits from two or more concentrations above.

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All courses may not be offered on every campus. Check with campus counseling department for more information.

Multidisciplinary



Within the requirements of the 26 credits to earn an endorsement, a student must complete one of the concentration options below to meet the multidisciplinary studies endorsement criteria.
(a fourth credit in mathematics, a fourth credit in science, one of the concentration options below)

A Workforce (CTE)

Four **advanced** courses (designated with **A**) that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence.

NOTE: Advanced CTE courses may be combined with advanced courses from other endorsement areas.

Agriculture, Food, and Natural Resources

Equine Science A 11-12	.5
Veterinary Medical Applications A 11-12	1
Agricultural Mechanics & Metal Technologies A 11-12	.5
Practicum in Agriculture: Vet Med Assistant A 12	2
Practicum in Agriculture: Floral Design A 12	2

Architecture and Construction

Architectural Design A 11-12	1
Advanced Architectural Design A 11-12	2

Arts, A/V Technology, & Communications

Advanced Audio Video Production A 11-12	2
Advanced Graphic Design & Illustration A 11-12	2
Advanced Fashion Design A 11-12	2
Web Design A 9-12	1

Business Management and Administration

Business Law A 11-12	.5
Global Business A 11-12	.5
Virtual Business A 9-12	.5

Education and Training

Instructional Practices in Education & Training A 11-12	2
Practicum in Education and Training A 12	2

Finance

Accounting I A 11-12	1
Accounting II A 12	1

Health Science

Medical Terminology A 9-12	.5
Health Science: Pharm Tech A 12	1
World Health Research A 11-12	1
Practicum in Health Science A 11-12	2
Practicum in Health Science II A 12	2
Anatomy and Physiology A 11-12	1

Hospitality and Tourism

Culinary Arts A 11-12	2
Practicum in Culinary Arts A 11-12	2
Food Science A 11-12	1

Human Services

Interpersonal Studies A 11-12	.5
Lifetime Nutrition and Wellness A 10-12	.5
Child Development A 11-12	.5
Career Preparation I A 11-12	3
Career Preparation II A 12	3

Information Technology

Internetworking Technologies I-Cisco A 11-12	1
Internetworking Technologies II-Cisco A 11-12	1
Video Game Design A 9-12	.5

Manufacturing

Welding A 12	2
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Marketing, Sales, & Service

Entrepreneurship A 11-12	.5
Marketing Dynamics A 11-12	3
Practicum in Marketing Dynamics A 12	3

Law, Public Safety, Corrections, and Security

Law Enforcement II A 11-12	1
Forensic Science A 11-12	1

Science, Technology, Engineering & Mathematics

Engineering Design & Presentation A 11-12	1
Principles of Engineering PLTW A 10-12	1
Aerospace Engineering PLTW A 11-12	1
Engineering Design & Development PLTW A 12	1
Honors Scientific Research & Design A 10-12	1
Honors Scientific Research & Design II A 11-12	1
Honors Scientific Research & Design III A 11-12	1
Engineering Design & Problem Solving A 11-12	1

Transportation, Distribution, & Logistics

Advanced Automotive Technology A 11-12	2
Advanced Collision Repair and Refinishing A 11-12	2

A - Advanced Science Credit

B**Foundation Subjects**

Four credits in each of the four foundation subject areas to include English IV and chemistry and/or physics.

C**Advanced Placement or International Baccalaureate**

Four credits in Advanced Placement, International Baccalaureate, or dual credit selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts.

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All courses may not be offered on every campus. Check with campus counseling department for more information.

Arts & Humanities



Within the requirements of the 26 credits to earn an endorsement, a student must complete one of the concentration options below to meet the Arts and Humanities endorsement criteria.

(a fourth credit in mathematics; *a fourth credit in science, and one of the concentration options shown below)

*With parent permission, students may substitute any TEKS-based course in the following content areas for the science requirement: ELA and Reading, Social Studies, Economics, LOTE, and Fine Arts.

A

Social Studies

Five social studies credits as shown below

Credit 1	Credit 2	Credit 3	Credit 4	Credit 5
World Geography -or- H/Pre-AP World Geography -or- AP Human Geography -or- IH Humanities I*	World History -or- H/Pre-AP World History -or- AP World History -or- IH Humanities II**	US History -or- AP US History or American Studies*** -or- IB History of the Americas	Government (.5) -or- AP Government (.5) and Economics (.5) -or- AP Economics (.5) -or- IB Economics	Psychology (.5) -or- Sociology (.5) -or- Contemporary World Issues (.5) -or- AP European History -or- AP Psychology (.5) -or- AP Comparative Government (.5) -or- IB Economics SL
*IH Humanities earns both IH English I and AP Human Geography credit.	**IH and GT Humanities II earn both IH/Pre-AP English II and AP World History credit.	***American Studies earns both AP English III and AP Us History credit.		

B

Language Other Than English (LOTE)

Option 1 – Four years of the same language at any level (on-level, H/IH, AP or IB)			
Credit 1	Credit 2	Credit 3	Credit 4
Chinese I French I German I Latin I Spanish I	Chinese II French II German II Latin II Spanish II	Chinese III French III German III Latin III Spanish III	Chinese IV French IV German IV Latin IV Spanish IV

Option 2 – Two years of one language and an additional two years of another language.			
Credit 1	Credit 2	Credit 3	Credit 4
Language I and II + Language I and II Students may choose from the languages in chart above with American Sign Language I and II (ASL) as an additional option.			

C

Fine Arts

Students will choose a coherent sequence of 4 credits in one of the following categories and at any level (on-level, H, IH/PreAP, AP or IB):

Category 1 –Visual Arts			
Credit 1	Credit 2	Credit 3	Credit 4
Art I -or- Sculpture	Art II -or- Sculpture II	Art III -or- AP Drawing Portfolio -or- AP 2D Design -or- AP 3D Design -or- AP Art History -or- IB SL Art	AP Drawing Portfolio -or- AP 2D Design -or- AP 3D Design -or- AP Art History -or- IB HL Art

Category 2 – Dance			
Credit 1	Credit 2	Credit 3	Credit 4
Dance I	Dance II	Dance III	Dance IV

Category 3 – Theater			
Credit 1	Credit 2	Credit 3	Credit 4
Theater Arts I -or- Technical Theatre I	Theater Arts II -or- Technical Theatre II	Theater Arts III -or- Technical Theatre III -or- Theatre Production I & III	Theater Arts IV -or- Technical Theatre IV -or- Theatre Production II & IV

Category 4 - Music			
Credit 1	Credit 2	Credit 3	Credit 4
Orchestra I -or- Band I -or- Choir I	Orchestra II -or- Band II -or- Choir II	Orchestra III -or- Band III -or- Choir III -or- Music Theory -or- Music Theory AP	Orchestra IV -or- Band III -or- Choir IV -or- Music Theory -or- Music Theory AP

—OR—			
A coherent sequence of four credits by selecting courses from two of the four categories above.			

D

English

Four English elective credits by selecting from the following

- English IV
- Independent Study in English
- Literary Genres
- Creative Writing
- Research and Technical Writing
- Humanities
- AP English Literature and Composition
- IB Language Studies HL
- Communications Applications or Professional Communication

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All courses may not be offered on every campus. Check with campus counseling department for more information.



Within the requirements of the 26 credits to earn an endorsement, a student must complete one of the concentration options below to meet the public services endorsement criteria.

A

Career and Technical Education (CTE)

A coherent sequence of courses for four or more credits in CTE that includes

- At least two courses in the same CTE career cluster from **Table 1**, and
- At least one **advanced** CTE course from Table 1 (designated with **A**), and
- The final course from one of the CTE career clusters listed in **Table 2**

Note: Select a sequence of CTE courses that total 4 or more credits and meet the criteria above. The total number of courses is not a factor.

Table 1

Education & Training			Hospitality & Tourism		
Instructional Practices in Education & Training A	11-12	2	Principles of Hospitality & Tourism	9-10	.5
Practicum in Education & Training A	12	2	Restaurant Management	10-12	.5
Finance			Food Science A	11-12	1
Principles of Business, Marketing, & Finance	9-11	.5	Human Services		
Accounting I A	11-12	1	Principles of Human Services	9-12	.5
Accounting II A	12	1	Dollars and Sense	10-12	.5
Health Science			Interpersonal Studies A	11-12	.5
Principles of Health Science	10-12	1	Lifetime Nutrition & Wellness A	10-12	.5
Medical Terminology A	9-12	.5	Child Development A	11-12	.5
Health Science: Pharm Tech A	12	1	Career Preparation I A	11-12	3
World Health Research A	11-12	1	Career Preparation II A	12	3
Practicum in Health Science A	11-12	2	Law, Public Safety, Corrections, & Security		
Practicum in Health Science II A	12	2	Principles of Law, Public Safety, Corrections, & Security	11-12	.5
Anatomy & Physiology A	11-12	1	Law Enforcement I	11-12	1
			Law Enforcement II A	11-12	1
			Forensic Science A	11-12	1

Table 2

Education & Training			Human Services		
Instructional Practices in Education & Training A	11-12	2	Principles of Human Services	9-12	.5
Practicum in Education & Training A	12	2	Dollars and Sense	10-12	.5
Health Science			Interpersonal Studies A	11-12	.5
Principles of Health Science	10-12	1	Lifetime Nutrition & Wellness A	10-12	.5
Medical Terminology A	9-12	.5	Child Development A	11-12	.5
Health Science: Pharm Tech A	12	1	Law, Public Safety, Corrections, & Security		
World Health Research A	11-12	1	Principles of Law, Public Safety, Corrections & Security	11-12	.5
Practicum in Health Science A	11-12	2	Law Enforcement I	11-12	1
Practicum in Health Science II A	12	2	Law Enforcement II A	11-12	1
Anatomy & Physiology A	11-12	1	Forensic Science A	11-12	1

A - Advanced Science Credit

B

Junior Reserve Officer Training Corps (JROTC)

Four courses in Junior Reserve Officer Training Corps

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