

THE ADVANCED TECHNICAL CREDIT PROGRAM

2010-2011 ATC Statewide-Articulated Course Crosswalk

How to Use the ATC Statewide-Articulated Course Crosswalk

The content-enhanced high school courses listed in the following ATC Course Crosswalk have been found to be substantially equal to the introductory-level college courses indicated. Statewide teams of secondary and postsecondary subject area faculty compared the Texas Essential Knowledge and Skills (TEKS) for each high school course with the course descriptions, syllabi, and expectations of courses found in the postsecondary Workforce Education Course Manual (WECM). These courses are most often used in technical certificate and degree programs at public community and technical colleges, including Tech Prep programs.

All ATC statewide-articulated courses will be noted with the “A” special explanation course code on high school transcripts.

ATC Course Numbers and Abbreviations – ATC statewide-articulated secondary Career and Technical Education (CTE) courses are no longer identified with unique PEIMS service ID/course numbers and course abbreviations. All PEIMS numbers with a unique “T” in the number have been removed. Districts will report local and statewide articulated courses in the PEIMS 415 Record with a new “A” articulation indicator code.

“A” Special Explanation Course Code - All courses eligible for college credit by statewide and local articulation are identified on the high school transcript (Academic Achievement Record, AAR) with the special explanation course code “A.” This code helps participating colleges identify courses taught with enhanced content for award of articulated college credit. For more information, go to <http://ritter.tea.state.tx.us/curriculum/aarmenu.html>

When school districts use these course numbers, they must be able to verify that:

1. Course content is enhanced beyond the required TEKS with standardized college course competencies (linked to the on-line ATC course crosswalk);
2. Teachers have met required faculty qualifications and have completed TEA-required ATC staff development for each course taught; and
3. Innovative ATC courses are state approved by TEA.

Although the primary purpose of the ATC Course Crosswalk is to provide guidance to colleges in the award of technical (workforce education) college credit for ATC statewide-articulated high school courses, under specific circumstances colleges may elect to award academic transfer credit from the postsecondary Academic Course Guide Manual (AGCM) for selected courses.

The use of the A code on the AAR will be needed for postsecondary institutions to identify local and ATC courses on transcripts. Information on the 2008 AAR Minimum Standards are posted at <http://www.tea.state.tx.us/curriculum/2008AARMinimumStandards.pdf>

The following is an excerpt from this document:

1.15 Special Explanation Codes

The list of codes on the following pages is authorized by the TEA. **The use of the “A” code for courses included in an articulated agreement is required. The use of the “D” code for dual credit courses is required.** The use of all other codes is optional. Districts may use additional codes locally. Insert the applicable code(s) in the appropriate field. (Please note: the capacity of TREx to accept locally-developed codes is currently limited. For more information, please visit <http://www.tea.state.tx.us/trex/>.)

Code	Special Explanation
A	<p>A high school course for which college credit maybe awarded by a college under the conditions of a local articulation agreement or the statewide Advanced Technical Credit Program agreement</p> <p>(Colleges agreeing to award credit under the conditions of a local agreement must be named elsewhere on the AAR or in an *attachment.)(Please note: the capacity of TREx to include *notes and *attachments is currently limited. For more information, please visit http://www.tea.state.tx.us/trex/.)</p>

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For more information on ATC:

e-mail:

atcstaff@sfasu.edu

or visit:

<http://www.atctexas.org/>

Agriculture, Food and Natural Resources

Effective School Year 2010-2011

To indicate statewide articulated courses on a student's AAR, use special course explanation code "A".
Courses in an articulated coherent sequence may be taken at any grade level (9-12) as long as the final course in the articulated coherent sequence is taken in grade 11 or 12.

- All high school courses **must** include enhanced content equivalent to the college courses indicated, and are a minimum of one (1) high school credit unless otherwise noted.
- Teachers approved for ATC courses must hold a baccalaureate degree in the teaching discipline, or a minimum of an associate degree **and** demonstrated competencies directly related to the subject area to fulfill SACS requirements.

High School Course	College WECM Equivalent
Equine Science (1 credit) (EQUINSCI) 13000500	Equine Science I AGEQ 1311 or AGEQ 1411 (AGEQ 1011 CEU) Course Outcomes: Explain the historical significance of the horse to society; identify horse breeds; identify basic anatomy and physiological functions; and outline managerial practices relevant to the horse industry.
Horticulture Science (1 credit) (HORTISCI) 13002000	Principles of Horticulture HALT 1301 or HALT 1401 (HALT 1001 CEU) Course Outcomes: Utilize scientific nomenclature used in horticulture; explain the effect of environmental factors on plant growth; and identify the various facets of the horticulture industry and career opportunities.
Landscape Design and Turf Grass Management (1 credit) (LNDTGMGT) 13001900	Landscape Design HALT 1322 OR HALT 1422 (HALT 1022 CEU) Course Outcomes: Demonstrate the appropriate procedures utilized in the development of a landscape plan; create an acceptable landscape design; and perform a site analysis and successfully incorporate the information into the final design.
Range Ecology Management (1 credit) (REOMGT) 13001600	Range Management AGCR 1307 or AGCR 1407 (AGCR 1007 CEU) Course Outcomes: Identify range problems including toxic plants, overgrazing, and water distribution; evaluate brush control methods including biological, mechanical, chemical, and range burning; devise range reseeding and water development plans; design rotational grazing systems; and compute stocking rates
Principles and Elements of Floral Design (1 credit) (PEFLDSN) 13001800	Floral Design FMKT 1301 or FMKT1401 (FMKT 1001 CEU) Course Outcomes: Apply principles and elements of design; identify floral design styles; identify cut flowers and foliages; explain the care and processing methods for extended vase life; select containers and mechanical aids; and create basic floral arrangements.
Advanced Environmental Technology (1 credit) (ADVENVT) 13001200	Environmental Science EPCT 1211 or 1311 (EPCT 1011 CEU) Course Outcomes: Explain the historical impact of the environmental movement; describe the environmental interrelationship between social, political, and natural processes; and describe the environmental regulatory agencies and their mission at national, state, and local levels.

<p>Veterinary Medical Applications (1 credit) (VETMEDAP) 13000600</p>	<p>Veterinary Terminology VTHT 1105 or 1205 (VTHT 1005 CEU)</p> <p>Course Outcomes: Define, apply, and analyze veterinary terms</p> <p style="text-align: center;">OR</p> <p>Veterinary Office Management VTHT1317 (VTHT 1017 CEU)</p> <p>Course Outcomes: Demonstrate effective client relation, communication, and computer skills; apply basic business principles such as the proper maintenance of medical records; and apply employment skills including interviewing, resume writing, and proper dress.</p>
<p>Veterinary Medical Applications (1 credit) (VETMEDAP) 13000600</p> <p>AND</p> <p>Advanced Animal Science (ADVANSCI) 13000700</p>	<p>Introduction to Veterinary Technology VTHT 1301 or 1401 (VTHT 1001 CEU)</p> <p>Course Outcomes: Demonstrate basic restraint, medication, and treatment techniques for domestic animals; identify breeds of animals; and specify the distinct job responsibilities of a veterinary assistant or technician in a modern veterinary practice including physical exams, basic care, feeding, sanitation, public and/or client relations, and ethical and legal issues.</p>
<p>Agricultural Mechanics and Metal Technology (1 credit) (AGMECHMT) 13002200</p>	<p>Shop Safety and Procedures DEMR 1301 or 1401 (DEMR 1001 CEU)</p> <p>Course Outcomes: Identify and use basic hand tools; use human protection equipment; and correctly use and dispose of hazardous materials.</p> <p style="text-align: center;">OR</p> <p>Welding Fundamentals WLDG 1421 or 1521 (WLDG 1021 CEU)</p> <p>Course Outcomes: Demonstrate safety procedures associated with oxy-fuel and arc process; perform basic welds using oxy-fuel and arc welding equipment; and identify ferrous and nonferrous metals.</p> <p style="text-align: center;">OR</p> <p>Farm and Ranch Shop Skills I AGME 1315 or 1415 (AGME 1015 CEU)</p> <p>Course Outcomes: Demonstrate oxyacetylene cutting procedures; demonstrate arc welding; identify shop tools; utilize shop plans; and describe construction processes..</p>
<p>Agricultural Power Systems (1 credit) (AGPOWSYS) 13002400</p>	<p>Preventive Maintenance DEMR 1229 or 1329 (DEMR 1029 CEU)</p> <p>Course Outcomes: Apply preventative maintenance practices; perform preventative maintenance on systems; and practice appropriate record keeping.</p> <p style="text-align: center;">OR</p> <p>Small Gasoline Engine SMER 1324 OR 1424 (SMER 1024 CEU)</p> <p>Course Outcomes: Describe ignition systems theory testing and diagnosis; disassemble, repair, inspect, and service engines; demonstrate the use and care of tools and materials; and demonstrate safe operations.</p>

Architecture and Construction

Effective School Year 2010 - 2011

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Courses in an articulated coherent sequence may be taken at any grade level (9-12) as long as the final course in the articulated coherent sequence is taken in grade 11 or 12.

- All high school courses **must** include enhanced content equivalent to the college courses indicated, and are a minimum of one (1) high school credit unless otherwise noted.
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High School Course	College WECM Equivalent
<p>Interior Design (1 credit) (INTERDSN) 13004300</p>	<p>Fundamentals of Interior Design INDS 1311 or INDS 1411 (INDS 1011 CEU)</p> <p>Course Outcomes: Describe and apply elements and principles of design; discuss the scope of the interior design profession; describe the interior design problem-solving process; and identify design quality.</p>
<p>Construction Technology (1 credit) (CONSTECH) 13005100</p>	<p>Architectural Blueprint Reading DFTG 1215 or 1315, (DFTG 1015 CEU)</p> <p>Course Outcomes: Identify the importance and use of construction prints; identify the symbols, terminology, and standard abbreviations; explain the sequence of drawing organization; make the calculations and measurements relative to construction; and interpret construction drawings and scales.</p>
<p>Advanced HVAC and Refrigeration Technology (2 credits) (ADVHVAC) 13005900</p> <p><i>Prerequisite:</i> Heating, Ventilation, Air-Conditioning and Refrigeration I</p>	<p><u>Basic Electricity for HVAC</u> HART 1301 or HART 1401 (or HART 1001 CEU)</p> <p>Demonstrate knowledge of basic principles of electricity, electrical current, circuitry, and air conditioning devices; apply Ohm's law to electrical calculations; perform electrical continuity, voltage, and current tests with appropriate meters; and demonstrate electrical safety.</p> <p style="text-align: center;">AND</p> <p><u>Refrigeration Principles</u> HART 1307 or HART 1407 (or HART 1007 CEU) Identify refrigeration components; explain operation of the basic refrigeration cycle and heat transfer; demonstrate proper application and/or use of tools, test equipment, and safety procedures.</p>

Arts, Audiovisual Technology and Communications

Effective School Year 2010 - 2011

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High School Course	College WECM Equivalent
<p>Advanced Audio/Video Production (2 credits) (ADVAVPRO) 13008600</p>	<p>Digital Video ARTV 1351 or ARTV 1451 (ARTV 1051 CEU) Course Outcomes: Use digital video capture and output methods; apply appropriate compression schemes for various output; integrate still graphics and animation into a production; apply principles of video production; and identify the components of a digital video system.</p> <p style="text-align: center;">OR</p> <p>Digital Sound ARTV 1343 or ARTV 1443 (ARTV 1043 CEU) Course Outcomes: Generate sound files from various sources; select sounds that are appropriate for a project's content; use sound editing software to manipulate and improve sound files; incorporate sound files into a project; and synchronize sound files with visuals and animation.</p>
<p>Animation (1 credit) (ANIMAT) 13008300</p>	<p>Basic Animation ARTV 1303 or ARTV 1403 (ARTV 1003 CEU) Course Outcomes: Demonstrate animation principles; communicate conceptual ideas through storyboards; execute animation sequences; and develop artwork using traditional or digital tools.</p>
<p>Advanced Animation (2 credits) (ADVANIM) 13008400</p>	<p>Introduction to Digital Media IMED 1301 or IMED 1401 (IMED 1001 CEU) Course Outcome: Utilize the elements and hardware/software components of digital media; produce a digital media presentation; select optimal digital media strategies for various delivery systems; and examine digital media industry career opportunities.</p>

Business Management and Administration

Effective School Year 2010-2011

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High School Course	College WECM Equivalent
Principles of Business, Marketing, and Finance (1 credit) (PRINBMF) 13011200	Supervision BMGT 1301 (BMGT 1001 CEU) Course Outcomes: Explain the role, characteristics, and skills of a supervisor and the principles of planning, leading, controlling, staffing, and organizing at the supervisory level. Identify and discuss the human skills necessary for supervision; explain motivational techniques and give examples of how they can be utilized by a supervisor; and structure a working environment which will provide a variety of ways for employees to be motivated.
Business Management (1 credit) (BUSMGT) 13012100	Office Management BMGT 1325 (BMGT 1025 CEU) Course Outcomes: Define the basic concepts of office management; identify the necessary skills and required competencies of an office manager; describe the different forms of organizations; and design effective processes for office operations.
Business Information Management I (1 credit) (BUSIM1) 13011400	Computer Applications I POFI 1301 or POFI 1401 (POFI 1001 CEU) Course Outcomes: Identify the components of a computer system; and perform common tasks used in applications <p style="text-align: center;">OR</p> Introduction to Computers ITSC 1301 or ITSC 1401 (ITSC 1001 CEU) Course Outcomes: Identify the components of a computer system; use common applications; explain the impact of computers on society; identify computer careers; identify fundamental programming structures; identify ethical use of computers; and use basic operating system functions.
Business Information Management II (1 credit) (BUSIM2) 13011500	Computer Applications II POFI 1341 or POFI 1441 (POFI 1041 CEU) Course Outcomes: Identify the components of a computer system; use common applications; explain the impact of computers on society; identify computer careers; identify fundamental programming structures; identify ethical use of computers; and use basic operating system functions. <p style="text-align: center;">OR</p> Integrated Software Applications I ITSC 1309 or ITSC 1409 (ITSC 1009 CEU)

	Course Outcomes: Use word processing, spreadsheet, database, and/or presentation software; and integrate applications to produce documents.
Business Law (1 credit) (BUSLAW) 13011700	Business Law/Contracts BUSG 2305 (BUSG 2005 CEU) Course Outcomes: Define fundamental legal terminology regarding contracts, torts, property, and wills; differentiate between business ethics and legal issues; and identify and explain required elements of torts, requirements of contracts, and various consumer laws as applied to business and individuals

Global Business (1 credit)
(GLOBBUS) 13011800

Enhancements

- **Project in the internationalization of functional business operations.**
- **Case problems for international business operations.**

Introduction to International Business and Trade
IBUS 1305 or IBUS 1405 (IBUS 1005 CEU)

Course Outcomes: Explain business terms in the global environment; and discuss internal and external factors influencing the conduct of business

Education and Training

Effective School Year - 2010-2011

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High School Course	College WECM Equivalent
<i>No courses offered in this cluster</i>	

Finance

Effective School Year 2010-2011

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High School Course	College WECM Equivalent
<p>Accounting I (1 credit) (ACCOUNT1) 13016600</p>	<p>Introduction to Accounting I ACNT 1303 or ACNT 1403 (ACNT 1003 CEU)</p> <p>Course Outcomes: Define accounting terminology; analyze and record business transactions in a manual and computerized environment; complete the accounting cycle; prepare financial statements; and apply accounting concepts related to cash and payroll.</p> <p style="text-align: center;">OR</p> <p>Principles of Accounting ACNT 1325 or ACNT 1425 (ACNT 1025 CEU)</p> <p>Course Outcomes: Identify and apply generally accepted accounting principles, concepts, and procedures; identify and process transactions in the accounting cycle for service and merchandising enterprises</p>
<p>Accounting II (1 credit) (ACCOUNT2) 13016700</p> <p>Prerequisite: Accounting I</p>	<p>Introduction to Accounting II ACNT 1304 or ACNT 1404 (ACNT 1004 CEU)</p> <p>Course Outcomes: Define related accounting terminology; analyze and record business transactions for a merchandising operation in a manual and computerized environment; calculate interest and apply valuation methods for receivables and payables; and utilize various inventory and depreciation valuation methods.</p>
<p>Banking and Financial Services (1 credit) (BANKFIN) 13016300 AND</p> <p>Accounting I or Accounting II</p> <p>Special Note: Separate training must be obtained for each course.</p>	<p>Principles of Bank Operation BNKG 1303 (BNKG 1001 CEU)</p> <p>Course Outcomes: Describe the fundamental banking terminology and functions of credit, deposit, and payment; identify the characteristics of banking products, services, and markets; describe the role of regulatory agencies and bank operations; and describe the role of technology as related to banking operations.</p>

Government and Public Administration
Effective School Year - 2010-2011

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High School Course	College WECM Equivalent
<i>No courses offered in this cluster</i>	

Health Science

Effective School Year 2010-2011

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HIGH SCHOOL COURSE	COLLEGE WECM EQUIVALENT
<p>Principles of Health Science (1 credit) (PRINHLSC) 13020200</p> <p style="text-align: center;">OR</p> <p>Health Science (1 credit) (HLTHSCI) 13020400</p>	<p>Introduction to Health Professions HPRS 1101 or 1201 (HPRS 1001 CEU)</p> <p>Course Outcomes: Identify the roles of various health care professionals; outline state and national credentialing and licensing requirements; describe legal and ethical issues affecting the practice of health care professionals; and give examples of professionalism and the rights and responsibilities of health care professionals.</p>
<p>Medical Terminology (1/2 credit) (MEDTERM) 13020300</p> <p style="text-align: center;">AND</p> <p>Principles of Health Science (1 credit) (PRINHLSC) 13020200</p> <p style="text-align: center;">OR</p> <p>Health Science (1 credit) (HLTHSCI) 13020400</p> <p>Special Note:</p> <ul style="list-style-type: none"> • Separate training must be obtained for each courses 	<p>Essentials of Medical Terminology HPRS 1106 or HPRS 1206 (HPRS 1006 CEU)</p> <p>Course Outcomes: Define, pronounce, and spell medical terms with the use of medical references as resource tools; use terms in context; build and analyze medical terms; examine word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols</p> <p style="text-align: center;">OR</p> <p>Medical Terminology MDCA 1213 or 1313 (MDCA 1013 CEU)</p> <p>Course Outcomes: Define terms and abbreviations which apply to the structural organization of the body; analyze and identify terms and their components from a list, including prefixes, suffixes, roots, and combining forms; identify correct pronunciation, spelling, and definition of medical terms; and correctly interpret the contents of a written patient medical scenario.</p> <p style="text-align: center;">OR</p> <p>Medical Terminology I HITT 1205 or 1305 (HITT 1005 CEU)</p> <p>Course Outcomes: Identify, pronounce, and spell medical terms; use terms in context; build and analyze medical terms; and use medical references as resource tools</p>
<p>Anatomy and Physiology (1 credit) (ANATPHYS) 13020600</p>	<p>Anatomy and Physiology for Allied Health VNSG 1320 or VNSG 1420 (VNSG 1020 CEU)</p> <p>Course Outcomes: Identify the structure of each of the</p>

Enhancements:

- Include elements of Pathophysiology
- Include all developmental stages of the human body

major body systems; describe the functions of each of the major body systems; and discuss the interrelationship of systems in maintaining homeostasis.

OR

**Anatomy and Physiology for Medical Assistants
MDCA 1309 or MDCA 1409 (MDCA 1009 CEU)**

Course Outcomes: Identify and correlate cells, tissues, organs, and systems of the human body; differentiate normal from abnormal structure and function; and identify all body systems, their organs, and relevant Pathophysiology.

Hospitality and Tourism

Effective School Year 2010-2011

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High School Course	College WECM Equivalent
<p>Culinary Arts (1 credit) (CULARTS) 13022600</p> <p>Enhancement:</p> <ul style="list-style-type: none"> • Serv-Safe certification MUST be obtained during this course for credit to be granted at the college level. 	<p>Sanitation and Safety CHEF 1205 or CHEF 1305 (CHEF 1005 CEU)</p> <p>Course Outcomes: Identify causes of and prevention procedures for food-borne illness, intoxication, and infection; demonstrate good personal hygiene and safe food handling procedures; describe food storage and refrigeration techniques; explain sanitation of dishes, equipment, and kitchens including cleaning material, garbage, and refuse disposal; and discuss Occupational Safety and Health Administration (OSHA) requirements and effective workplace safety programs.</p>
<p>Hotel Management (1 credit) (HOTELMGT) 13022300</p>	<p>Front Office Procedures HAMG 1313 (HAMG 1013)</p> <p>Course Outcomes: Discuss the various service levels and market segments in the lodging industry as they pertain to the front office area of the hotel; and identify front office responsibilities, accounting procedures, revenue management, checkout and settlement procedures, and night audit functions and verification.</p> <p style="text-align: center;">OR</p> <p>Guest Room Management HAMG 1342 or 1242 (1042 CEU)</p> <p>Course Outcomes: Identify the steps for planning, organizing, and staffing as they relate to guest room operations; explain how housekeeping operations are directed and controlled; explain the budgeting function; and identify cleaning duties, cleaning supplies, and laundry needs of guest room services.</p>
<p>Travel and Tourism Management (1 credit) (TRTORMGT) 13022500</p>	<p>Introduction to Travel and Tourism TRVM 1300 (TRVM 1000 CEU)</p> <p>Course Outcomes: Identify the qualifications needed for the many careers in the travel and tourism industry; discuss the history and growth of travel and tourism and how they relate to the marketplace; define the role of governments in the travel industry and identify how tourism is an important source of revenue for a destination; describe types of geography as it relates to travelers, and identify types of travel and travelers; identify the components of the travel and tourism industry, define</p>

	the channels of distribution, and discuss how the travel product is promoted and marketed.
Hospitality Services (1 credit) (HOSPSRVS) 13022800	Introduction to Hospitality Industry HAMG 1221 or HAMG 1321 (HAMG 1021 CEU) Course Outcomes: Identify the segments and career opportunities in the hospitality industry; discuss current issues facing the hospitality industry; and discuss the impact of customer service.
Restaurant Management (1 credit) (RESTMGT) 13022400	Food Service Operation/Systems CHEF 1313 or 1413 (CHEF 1013 CEU) Course Outcomes: Discuss overall front- and back-of-the-house operation (both food and lodging operation); identify and explain point of sale, computerized inventory, and menu management; and discuss cashier procedures utilizing a computerized system.

Human Services

Effective School Year 2010-2011

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High School Course	College WECM Equivalent
<p>Lifetime Nutrition and Wellness (1 credit) (LNURTWEL) 13024500</p>	<p>Nutrition for the Food Service Professional IFWA 1218 or IFWA 1318 (IFWA 1018 CEU) Course Outcomes: Identify nutrients and their sources, functions, digestion, and metabolism; explain healthy cooking techniques; analyze and modify recipes for healthier food production; and evaluate and prepare diets and menus in accordance with dietary guidelines and restrictions.</p>
<p>Child Guidance (2 credits) (CHILDGUI) 13024800</p> <p>ENHANCEMENTS:</p> <ul style="list-style-type: none"> ▪ Application of guidance intervention with a child ▪ Prepare DAP schedule, routines, transitions ▪ Thirty hours (30hrs) observation at a child care facility 	<p>Child Guidance CDEC 1319 or CDEC 1419 (CDEC 1019 CEU) Course Outcomes: Summarize theories related to child guidance; explain how appropriate guidance promotes autonomy, self-discipline, and life-long social skills in children; recognize the impact and influence of families and culture in guiding children; and promote development of positive self-concept and prosocial behaviors in children. Apply appropriate guidance techniques to specific situations relating to children's behaviors and demonstrate skills in helping children resolve conflicts.</p> <p style="text-align: center;">OR</p> <p>Curriculum Resources for Early Childhood Programs CDEC 1313 or CDEC 1413 (CDEC 1013 CEU) Course Outcomes: Define developmentally appropriate practices; describe the process of child-centered curriculum development; and develop guidelines for creating developmentally appropriate indoor and outdoor learning environments. Apply an understanding of teacher roles in early childhood classrooms; prepare a developmentally appropriate schedule including routines and transitions; and select, plan, implement, and evaluate developmentally appropriate learning experiences for children.</p> <p style="text-align: center;">OR</p> <p>Child Development Associate Training II CDEC 2322 (CDEC 2022 CEU) Course Outcomes: Explain methods to establish and maintain a safe, healthy learning environment, describe ways to support social and emotional development and describe techniques used to provide positive guidance. Utilize skills in writing, speaking, problem-solving, time management, and record keeping.</p>

Information Technology

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High School Course	College WECM Equivalent
Principles of Information Technology (1 credit) (PRINIT) 13027200	Integrated Software Applications I ITSC 1309 or ITSC 1409 (ITSC 1009 CEU) Course Outcomes: Use word processing, spreadsheet, database, and/or presentation software; and integrate applications to produce documents.
Computer Maintenance (1 credit) (COMPMTN) 13027300	Introduction to Computer Technology CPMT 1303 or CPMT 1403 (CPMT 1003 CEU) Course Outcomes: Define terms, expressions and phrases associated with computers; and use basic commands in various applications. <p style="text-align: center;">OR</p> Personal Computer Hardware ITSC 1325 or ITSC 1425 (ITSC 1025 CEU) Course Outcomes: Assemble/setup and upgrade personal computer systems; diagnose and isolate faulty components; optimize system performance; and install/connect peripherals.
Telecommunications and Networking (1 credit) (TELECOMN) 13027400	Fundamentals of Networking Technologies ITNW 1325 or ITNW 1425 (ITNW 1025 CEU) Course Outcomes: Identify and use network transmission media; explain the OSI model; Identify the characteristics of network topologies and protocols; identify the functions of a network operating system and distinguish between centralized, client/server, and peer-to-peer systems; and distinguish between Local Area Networks (LANs) and Wide Area Networks (WANs) and identify the components used to expand a LAN into a WAN.
Computer Technician (2 credits) (COMPTECH) 13027500	Introduction to Computer Maintenance CPMT 1311 or CPMT 1411 (CPMT 1011 CEU) Course Outcomes: Identify modules that make

	<p>up a computer system and its operation; identify each type of computer bus structure; assemble/setup microcomputer systems and adapter/interface boards; and install/connect associated peripherals</p>
<p>Digital and Interactive Media (1 credit) (DIMEDIA) 13027800</p>	<p>Digital Imaging I ARTC 1302 or ARTC 1402 (ARTC 1002 CEU)</p> <p>Course Outcomes: Identify terminology, advantages and limitations of image editing software; distinguish bit-mapped resolutions for image acquisitions and output devices; use digital editing and painting tools; use basic half-tone theory in production of images, manipulate, create, and edit digital images for print and for web; specify appropriate file formats.</p>
<p>Web Technologies (1 credit) (WEBTECH) 13027900</p>	<p>Web Design I IMED 1316 or IMED 1416 (IMED 1016 CEU)</p> <p>Course Outcomes: Identify how the Internet functions with specific attention to the World Wide Web and file transfer; apply design techniques in the creation and optimization of graphics and other embedded elements; demonstrate the use of World Wide Web Consortium (W3C) formatting and layout standards; and design, create, test, and maintain a web site.</p> <p style="text-align: center;">OR</p> <p>Internet/Web Page Development ITSC 1319 or ITSC 1419 (ITSC 1019 CEU)</p> <p>Course Outcomes: Identify basic Internet concepts and terminology; use electronic communication methods; and collect and evaluate research data using the Internet.</p>

Law, Public Safety, Corrections and Security

Effective School Year 2010-2011

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Courses in an articulated coherent sequence may be taken at any grade level (9-12) as long as the final course in the articulated coherent sequence is taken in grade 11 or 12.

- All high school courses **must** include enhanced content equivalent to the college courses indicated, and are a minimum of one (1) high school credit unless otherwise noted.
- Teachers approved for ATC courses must hold a baccalaureate degree in the teaching discipline, or a minimum of an associate degree and demonstrated competencies directly related to the subject area to fulfill SACS requirements.

High School Course	College WECM Equivalent
<p>Law Enforcement I (1 credit) (LAWENF1) 13029300</p>	<p>Criminalistics I CJSA 1308</p> <p>Course Outcomes: Describe the care required in identifying, collecting, and preserving evidence for scientific examination and explain the significance of field and laboratory findings.</p>
<p>Court Systems and Practices (1 credit) (COURTSP) 13029600</p> <p>Required Textbook: <u>Criminal Procedure [Law and Practice]</u>, Ramon V. Del Carmen, Thompson Wordsworth, Publisher]</p>	<p>Fundamentals of Criminal Law CJSA 1327</p> <p>Course Outcomes: Explain the historical and philosophical development of the nature of criminal law; describe definitions and concepts of criminal law and the classifications of crimes and penalties using Texas statutes as illustrations; list the elements of crimes using the Texas statutes as an illustration; and discuss criminal responsibilities as they apply to the criminal statutes. (This course is parallel to the Academic Course Guide Manual (ACGM) course, CRIJ 1310.)</p> <p style="text-align: center;">OR</p> <p>Court Systems and Practices (Formerly Courts and Criminal Procedures) CJSA 1313</p> <p>Course Outcomes: Describe the American judiciary system and its structure; identify the roles of judicial officers; identify the trial processes from pretrial to sentencing; and interpret the role of evidence. (This course is parallel to the Academic Course Guide Manual (ACGM) course, CRIJ 1306)</p>
<p>Correctional Services (1 credit) (CORRSRVS) 13029700</p>	<p>Basic Jail Course CJCR 1300 or CJCR 1400 (CJCR 1000 CEU)</p> <p>Course Outcomes: Comply with licensure requirements of the state of Texas; demonstrate skills in the care, custody, and control of jail inmates; and discuss legal issues, gender and cultural diversity, and stress management techniques in a local correctional environment.</p> <p style="text-align: center;">OR</p>

	<p>Correctional Systems and Practices CJCR 1307 (CJCR 1007 CEU)</p> <p>Course Outcomes: Identify the organization and role of corrections; distinguish operations and procedure within correctional programs; and appraise rehabilitation, alternatives to institutionalization, and future issues</p>
<p>Law Enforcement II (1 credit) (LAWENF2) 13029400</p> <p>Special Note:</p> <ul style="list-style-type: none">• Teacher must have Emergency Communications Certification• Student must earn the Emergency Certification in order to get credit	<p>Basic Telecommunication Certification CJLE 1303 (CJLE 1033 CEU)</p> <p>Course Outcomes: Demonstrate radio operations; identify legal issues regarding telecommunications; process radio logs and documentation; and prioritize emergency calls for management.</p>

Manufacturing

Effective School Year 2010-2011

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High School Course	College WECM Equivalent
<p>Precision Metal Manufacturing (1 credit) (PRECMAN) 13032500</p>	<p>Basic Machine Shop I MCHN 1338 or MCHN 1438 (MCHN 1038 CEU) Course Outcomes: Demonstrate proper use of the lathe, milling machine, drill press, power saw, and bench grinder applying good housekeeping, proper safety, and preventative maintenance. Perform bench work including part layout, drilling, reaming, tapping, press fitting, location of hole centers and surfaces; set up power saws for cutoff operation; demonstrate tooling maintenance, hazardous material handling, and preventative maintenance.</p>
<p>Advanced Precision Metal Manufacturing (2 credits) (ADVPMM) 13032600</p> <p>Prerequisite: Precision Metal Manufacturing</p>	<p>Basic Machine Shop II MCHN 1341 or MCHN 1441 (MCHN 1041 CEU) Course Outcomes: Identify machine parts and their functions; select layout tools and techniques; define machine shop terminology; perform basic machine setups; calculate common shop formulas; perform semi-precision layout; execute grinding techniques; demonstrate basic machine operations; and apply proper measuring tools.</p>
<p>Advanced Welding (2 credits) (ADVWELD) 13032400</p>	<p>Introduction to Welding Fundamentals WLDG 1421 or WLDG 1521 or WLDG 1221 or WLDG 1222 (WLDG 1021 CEU)</p> <p>Course Outcomes: Demonstrate safety procedures associated with oxy-fuel and arc process; perform basic welds using oxy-fuel and arc welding equipment; and identify ferrous and nonferrous metals.</p> <p style="text-align: center;">OR</p> <p>Introduction to Shielded Metal Arc Welding (SMAW) WLDG 1428 or WLDG 1528 (WLDG 1028 CEU)</p> <p>Course Outcomes: Select electrodes and amperage settings for various thicknesses of materials and welding positions; define principles of arc welding; and explain electrode classifications. Perform SMAW operations in various positions using selected electrodes and different joint designs.</p>

Marketing, Sales and Services

Effective School Year 2010-2011

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High School Course	College WECM Equivalent
Marketing Dynamics (2 credits) (MKTGDYN) 13034700	Principles of Marketing MRKG 1311 (MRKG 1011 CEU) Course Outcomes: Identify the marketing mix components in relation to market segmentation; explain the economic, psychological, sociological, and global factors which influence consumer and organizational decision-making processes; outline a marketing plan; and interpret marketing research data to forecast industry trends and meet customer demands.
Entrepreneurship (1 credit) (ENTREP) 13034400	Small Business Management BUSG 2309 (BUSG 2009 CEU) Course Outcomes: Describe important issues about small business; identify essential management skills required of a successful entrepreneur; and prepare a business plan.

Science, Technology, Engineering and Mathematics

Effective School Year 2010-2011

This portion of the Crosswalk (for STEM) will be posted in early January, 2010. The ATC Leadership Committee is considering additional courses not in the PLTW curriculum.

Transportation, Distribution and Logistics

Effective School Year 2010-2011

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- Teachers approved for ATC courses must hold a baccalaureate degree in the teaching discipline, or a minimum of an associate degree and demonstrated competencies directly related to the subject area to fulfill SACS requirements.

HIGH SCHOOL COURSE	COLLEGE WECM EQUIVALENT
<p>Advanced Automotive Technology (2 credits) (AUTOTECH) 13039700</p> <p>Special Note: Teacher must be ASE Certified in:</p> <ul style="list-style-type: none"> • Electrical • Brakes • Engine Performance • Steering and Suspension <p>Student must pass the National Automotive Student Skills Standards Assessment (NA3SA). Program facilities must be NATEF approved.</p>	<p>Introduction and Theory of Automotive Technology AUMT 1201 or 1301 (AUMT 1001 CEU)</p> <p>Course Outcomes: Explain the history of the automobile and career possibilities of the automobile industry; describe safe, professional, and responsible work practices; identify proper use of shop tools and equipment; explain functions of vehicle subsystems and explain the use of service publications; identify the various automobile fasteners used in industry; and explain automotive maintenance.</p> <p style="text-align: center;">AND</p> <p>Automotive Suspension and Steering Systems AUMT 1316 or 1416 (AUMT 1016 CEU)</p> <p>Course Outcomes: Utilize appropriate safety procedures; identify system components; diagnose and repair system components; perform wheel alignment procedures; and perform tire service and repair</p> <p style="text-align: center;">AND</p> <p>Automotive Brake Systems AUMT 1310 or 1410 (AUMT 1010 CEU)</p> <p>Course Outcomes: Utilize appropriate safety procedures; and diagnose and repair hydraulic systems, drum/disc brake systems, and anti-lock brake systems.</p> <p style="text-align: center;">.....</p> <p style="text-align: center;">OR</p> <p>Introduction to Automotive Technology AUMT 1305 or 1405 (AUMT 1005 CEU)</p> <p>Course Outcomes: Utilize appropriate safety procedures; describe historical development and career information of the automotive industry; demonstrate safe, professional, and responsible</p>

work practices; demonstrate the proper use of shop equipment and tools; describe functions of vehicle subsystems; use service information; identify various automotive fasteners; and perform automotive maintenance.

AND

**Automotive Suspension and Steering Systems
AUMT 1316 or 1416 (AUMT 1016 CEU)**

Course Outcomes: Utilize appropriate safety procedures; identify system components; diagnose and repair system components; perform wheel alignment procedures; and perform tire service and repair

AND

**Automotive Brake Systems
AUMT 1310 or 1410 (AUMT 1010 CEU)**

Course Outcomes: Utilize appropriate safety procedures; and diagnose and repair hydraulic systems, drum/disc brake systems, and anti-lock brake systems.