

# Agriculture, Food and Natural Resources

Effective School Year 2012-2013

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- 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   |
|--|---|
| <b>Equine Science (1 credit)</b><br><b>(EQUINSCI) 13000500</b>                             | <b>Equine Science I</b><br><b>AGEQ 1311 or AGEQ 1411 (AGEQ 1011 CEU)</b><br><br><b>Course Outcomes:</b> 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.  |
| <b>Horticulture Science (1 credit)</b><br><b>(HORTISCI) 13002000</b>                       | <b>Principles of Horticulture</b><br><b>HALT 1301 or HALT 1401 (HALT 1001 CEU)</b><br><br><b>Course Outcomes:</b> 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.   |
| <b>Landscape Design and Turf Grass Management (1 credit)</b><br><b>(LNDTGMGT) 13001900</b> | <b>Landscape Design</b><br><b>HALT 1322 OR HALT 1422 (HALT 1022 CEU)</b><br><br><b>Course Outcomes:</b> 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.  |
| <b>Range Ecology Management (1 credit)</b><br><b>(RECOMGT) 13001600</b>                    | <b>Range Management</b><br><b>AGCR 1307 or AGCR 1407 (AGCR 1007 CEU)</b><br><br><b>Course Outcomes:</b> 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. |
| <b>Principles and Elements of Floral Design (1 credit)</b><br><b>(PEFLDSN) 13001800</b>    | <b>Floral Design</b><br><b>FMKT 1301 or FMKT1401 (FMKT 1001 CEU)</b><br><br><b>Course Outcomes:</b> Apply principles and elements of design; identify floral design styles; identify cut flowers and foliage; explain the care and processing methods for extended vase life; select containers and mechanical aids; and create basic floral  |

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|   | arrangements.   |
| <b>Advanced Environmental Technology (1 credit)<br/>(ADVENVT) 13001200</b>            | <p><b>Environmental Science<br/>EPCT 1211 or 1311 (EPCT 1011 CEU)</b></p> <p><b>Course Outcomes:</b> 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>   |
| <b>Agricultural Mechanics and Metal Technology (1 credit)<br/>(AGMECHMT) 13002200</b> | <p><b>Shop Safety and Procedures<br/>DEMR 1301 or 1401 (DEMR 1001 CEU)</b></p> <p><b>Course Outcomes:</b> Identify and use basic hand tools; use human protection equipment; and correctly use and dispose of hazardous materials.</p> <p style="text-align: center;"><b>OR</b></p> <p><b>Welding Fundamentals<br/>WLDG 1421 or 1521 (WLDG 1021 CEU)</b></p> <p><b>Course Outcomes:</b> 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;"><b>OR</b></p> <p><b>Farm and Ranch Shop Skills I<br/>AGME 1315 or 1415 (AGME 1015 CEU)</b></p> <p><b>Course Outcomes:</b> Demonstrate oxyacetylene cutting procedures; demonstrate arc welding; identify shop tools; utilize shop plans; and describe construction processes..</p> |
| <b>Agricultural Power Systems (1 credit)<br/>(AGPOWSYS) 13002400</b>                  | <p><b>Preventive Maintenance<br/>DEMR 1229 or 1329 (DEMR 1029 CEU)</b></p> <p><b>Course Outcomes:</b> Apply preventative maintenance practices; perform preventative maintenance on systems; and practice appropriate record keeping.</p> <p style="text-align: center;"><b>OR</b></p> <p><b>Small Gasoline Engine<br/>SMER 1324 OR 1424 (SMER 1024 CEU)</b></p> <p><b>Course Outcomes:</b> 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

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|---|---|
| <b>Interior Design (1 credit)</b><br><b>(INTERDSN) 13004300</b>   | <b>Fundamentals of Interior Design</b><br><b>INDS 1311 or INDS 1411 (INDS 1011 CEU)</b><br><br><b>Course Outcomes:</b> 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.  |
| <b>Construction Technology (1 credit)</b><br><b>(CONSTECH) 13005100</b>   | <b>Architectural Blueprint Reading</b><br><b>DFTG 1215 or 1315, (DFTG 1015 CEU)</b><br><br><b>Course Outcomes:</b> 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.  |
| <b>Principles of Architecture and Construction (1 credit)</b><br><b>(PRINARCH) 13004200</b>   | <b>Architectural Drafting - Residential</b><br><b>DFTG 1317 or 1417, (ARTC 1017 CEU)</b><br><br><b>Course Outcomes:</b> Utilize architectural terms, symbols, residential construction materials, and processes to produce a set of residential construction drawings including site plan, floor plan, elevations, wall sections, schedules, details, and foundation plan using reference materials.  |
| <b>Advanced HVAC and Refrigeration Technology (2 credits)</b><br><b>(ADVHVAC) 13005900</b><br><br><i>Prerequisite:</i> Heating, Ventilation, Air-Conditioning and Refrigeration I | <b>Basic Electricity for HVAC</b><br><b>HART 1301 or HART 1401 (HART 1001 CEU)</b><br><br><b>Course Outcomes:</b> 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.<br><br><b>AND</b><br><b>Refrigeration Principles</b><br><b>HART 1307 or HART 1407 (HART 1007 CEU)</b><br>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. |

# Arts, Audiovisual Technology and Communications

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| <p><b>Advanced Audio/Video Production</b><br/> <b>(2 credits)</b><br/> <b>(ADVAVPRO) 13008600</b></p> | <p><b>Digital Video</b><br/> <b>ARTV 1351 or ARTV 1451 (ARTV 1051 CEU)</b></p> <p><b>Course Outcomes:</b> 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;"><b>OR</b></p> <p><b>Digital Sound</b><br/> <b>ARTV 1343 or ARTV 1443 (ARTV 1043 CEU)</b></p> <p><b>Course Outcomes:</b> 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><b>Fashion Design</b><br/> <b>(1 credit)</b><br/> <b>(FASHDSN) 13009300</b></p>                    | <p><b>Introduction to Fashion</b><br/> <b>FSHD 1302</b></p> <p><b>Course Outcomes:</b> Use fashion vocabulary appropriately; document the fashion process through contact with fashion businesses and publications; record job opportunities in the fashion industry; and interview a fashion professional.</p>  |
| <p><b>Advanced Fashion Design</b><br/> <b>(2 credits)</b><br/> <b>(ADVFAST) 13009400</b></p>          | <p><b>Design Construction Techniques</b><br/> <b>FSHD 1251 or 1351</b></p> <p><b>Course Outcomes:</b> Demonstrate design decision-making skills through pattern manipulation and selection of appropriate fabrics, linings, interfacings, and notions; produce fully lined unstructured garments with pattern design changes; display design and construction skills using intermediate level fabrics; and document design and construction techniques.</p>  |

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| <p><b>Animation</b><br/> <b>(1 credit)</b><br/> <b>(ANIMAT) 13008300</b></p>            | <p><b>Interactive Digital Media I</b><br/> <b>IMED 1345 or IMED 1445 (IMED 1045 CEU)</b></p> <p><b>Course Outcomes:</b> Develop an interactive digital media presentation integrating different types of media; design a navigation scheme; and demonstrate animation techniques.</p>    |
| <p><b>Advanced Animation</b><br/> <b>(2 credits)</b><br/> <b>(ADVANIM) 13008400</b></p> | <p><b>Basic Animation</b><br/> <b>ARTV 1303 or ARTV 1403 (ARTV 1003 CEU)</b></p> <p><b>Course Outcomes:</b> Demonstrate animation principles; communicate conceptual ideas through storyboards; execute animation sequences; and develop artwork using traditional or digital tools.</p> |

# Business Management and Administration

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|---|---|
| <b>Principles of Business, Marketing, and Finance</b><br><b>(1 credit)</b><br><b>(PRINBMF) 13011200</b> | <b>Introduction to Business</b><br><b>BUSG 1301 (BUSG 1001 CEU)</b><br><br><b>Course Outcomes:</b> Describe the scope of global business enterprise; identify business functions of accounting, management, marketing, and economics; and describe the relationships of social responsibility, ethics, and law.   |
| <b>Touch System Data Entry</b><br><b>(1 credit)</b><br><b>(TSDATAE) 13011300</b>                        | <b>Beginning Keyboarding</b><br><b>POFT 1329, or 1429 (POFT 1029 CEU)</b><br><br><b>Course Outcomes:</b> Demonstrate basic keyboarding techniques; apply proofreading and editing skills; and create basic business documents.  |
| <b>Business English</b><br><b>(1 credit)</b><br><b>(BUSENGL) 13011600</b>                               | <b>Business English</b><br><b>POFT 1301 (POFT 1001 CEU)</b><br><br><b>Course Outcomes:</b> Apply the basic rules of grammar, spelling, capitalization, number usage, and punctuation; utilize terminology applicable to technical and business writing; develop proofreading and editing skills; and write effective sentences and paragraphs for business applications.  |
| <b>Human Resource Management</b><br><b>(1 Credit)</b><br><b>(HRMGT) 13011900</b>                        | <b>Human Resources Management</b><br><b>HRP0 2301 or (HRPO 2001 CEU)</b><br><b>Course Outcomes:</b> Describe and explain the development of human resources management; evaluate current methods of job analysis, recruitment, selection, training/development, performance management, promotion, and separation; discuss management's ethical, social, and legal responsibilities; assess methods of compensation and benefits planning; and analyze the role of strategic human resource planning in support of organizational mission and objectives. |

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| <p><b>Business Management</b><br/>(1 credit)<br/>(BUSMGT) 13012100</p>                | <p><b>Principles of Management</b><br/><b>BMGT 1327, (BMGT 1027 CEU)</b></p> <p><b>Course Outcomes:</b> Explain various theories, processes, and functions of management; apply theories to a business environment; identify leadership roles in organizations; and describe elements of the communication process.</p>   |
| <p><b>Business Information Management I</b><br/>(1 credit)<br/>(BUSIM1) 13011400</p>  | <p><b>Computer Applications I</b><br/><b>POFI 1301 or POFI 1401 (POFI 1001 CEU)</b></p> <p><b>Course Outcomes:</b> Identify the components of a computer system; and perform common tasks used in applications</p> <p style="text-align: center;"><b>OR</b></p> <p><b>Introduction to Computers</b><br/><b>ITSC 1301 or ITSC 1401 (ITSC 1001 CEU)</b></p> <p><b>Course Outcomes:</b> 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>  |
| <p><b>Business Information Management II</b><br/>(1 credit)<br/>(BUSIM2) 13011500</p> | <p><b>Computer Applications II</b><br/><b>POFI 1341 or POFI 1441 (POFI 1041 CEU)</b></p> <p><b>Course Outcomes:</b> 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> <p style="text-align: center;"><b>OR</b></p> <p><b>Integrated Software Applications I</b><br/><b>ITSC 1309 or ITSC 1409 (ITSC 1009 CEU)</b></p> <p><b>Course Outcomes:</b> Use word processing, spreadsheet, database, and/or presentation software; and integrate applications to produce documents.</p> |
| <p><b>Business Law</b><br/>(1 credit)<br/>(BUSLAW) 13011700</p>                       | <p><b>Business Law/Contracts</b><br/><b>BUSG 2305 (BUSG 2005 CEU)</b></p> <p><b>Course Outcomes:</b> Define fundamental legal terminology regarding contracts, torts, property, and wills; differentiate</p>  |

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|  | <p>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.</p>   |
| <p><b>Global Business<br/>(1 credit)<br/>(GLOBBUS) 13011800</b></p> <p>Enhancements</p> <ul style="list-style-type: none"> <li>● Project in the internationalization of functional business operations.</li> <li>● Case problems for international business operations.</li> </ul> | <p><b>Introduction to International Business and Trade<br/>IBUS 1305 or IBUS 1405 (IBUS 1005 CEU)</b></p> <p><b>Course Outcomes:</b> Explain business terms in the global environment; and discuss internal and external factors influencing the conduct of business</p> |



## Education and Training

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

# Finance

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|--|---|
| <p><b>Accounting I</b><br/>(1 credit)<br/>(ACCOUNT1) 13016600</p>  | <p><b>Introduction to Accounting I</b><br/><b>ACNT 1303 or ACNT 1403 (ACNT 1003 CEU)</b></p> <p><b>Course Outcomes:</b> 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;"><b>OR</b></p> <p><b>Principles of Accounting</b><br/><b>ACNT 1325 or ACNT 1425 (ACNT 1025 CEU)</b></p> <p><b>Course Outcomes:</b> 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><b>Money Matters</b><br/>(1 credit)<br/>(MONEYM) 13016200</p>   | <p><b>Money and Banking</b><br/><b>BNKG 1340 (BNKG 1040 CEU)</b></p> <p><b>Course Outcomes:</b> Identify the role of the Federal Reserve and other central banks influencing the money supply; describe principles of monetary and fiscal policy as they relate to the banking industry; describe the characteristics of financial intermediaries, related markets, investments, and funds management.</p>  |
| <p><b>Banking and Financial Services</b><br/>(1 credit)<br/>(BANKFIN) 13016300<br/><b>AND</b></p> <p><b>Accounting I or Accounting II</b></p> <p><b>Special Note:</b><br/>Separate training must be obtained for <b>each</b> course.</p> | <p><b>Principles of Bank Operation</b><br/><b>BNKG 1303 (BNKG 1001 CEU)</b></p> <p><b>Course Outcomes:</b> 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

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

## Health Science

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| HIGH SCHOOL COURSE  | COLLEGE WECM EQUIVALENT  |
|---|--|
| <p><b>Principles of Health Science</b><br/>(1 credit)<br/>(PRINHLSC) 13020200</p> <p style="text-align: center;">OR</p> <p><b>Health Science</b><br/>(1 credit)<br/>(HLTHSCI) 13020400</p>  | <p><b>Introduction to Health Professions</b><br/>HPRS 1101 or 1201 (HPRS 1001 CEU)</p> <p><b>Course Outcomes:</b> 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><b>Medical Terminology</b><br/>(1/2 credit)<br/>(MEDTERM) 13020300</p> <p style="text-align: center;">AND</p> <p><b>Principles of Health Science</b><br/>(1 credit) (PRINHLSC) 13020200</p> <p style="text-align: center;">OR</p> <p><b>Health Science</b><br/>(1 credit)<br/>(HLTHSCI) 13020400</p> <p>Special Note:</p> <ul style="list-style-type: none"> <li>• Separate training must be obtained for <b>each</b> courses</li> </ul> | <p><b>Essentials of Medical Terminology</b><br/>HPRS 1106 or HPRS 1206 (HPRS 1006 CEU)</p> <p><b>Course Outcomes:</b> 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><b>Medical Terminology</b><br/>MDCA 1213 or 1313 (MDCA 1013 CEU)</p> <p><b>Course Outcomes:</b> 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><b>Medical Terminology I</b><br/>HITT 1205 or 1305 (HITT 1005 CEU)</p> <p><b>Course Outcomes:</b> Identify, pronounce, and spell medical terms; use terms in context; build and analyze medical terms; and use medical references as resource tools.</p> |

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| <p><b>Anatomy and Physiology<br/>(1 credit)<br/>(ANATPHYS) 13020600</b></p> <p><b>Enhancements:</b></p> <ul style="list-style-type: none"> <li>• Include elements of Pathophysiology</li> <li>• Include all developmental stages of the human body</li> </ul> | <p><b>Anatomy and Physiology for Allied Health<br/>VNSG 1320 or VNSG 1420 (VNSG 1020 CEU)</b></p> <p><b>Course Outcomes:</b> Identify the structure of each of the major body systems; describe the functions of each of the major body systems; and discuss the interrelationship of systems in maintaining homeostasis.</p> <p style="text-align: center;"><b>OR</b></p> <p><b>Anatomy and Physiology for Medical Assistants<br/>MDCA 1309 or MDCA 1409 (MDCA 1009 CEU)</b></p> <p><b>Course Outcomes:</b> 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.</p> |
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# Hospitality and Tourism

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|---|---|
| <b>Travel and Tourism Management</b><br><b>(1 credit)</b><br><b>(TRTORMGT) 13022500</b> | <b>Introduction to Travel and Tourism</b><br><b>TRVM 1300 (TRVM 1000 CEU)</b><br><br><b>Course Outcomes:</b> 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 the channels of distribution, and discuss how the travel product is promoted and marketed.                                     |
| <b>Hospitality Services</b><br><b>(1 credit)</b><br><b>(HOSPSRVS) 13022800</b>          | <b>Introduction to Hospitality Industry</b><br><b>HAMG 1221 or HAMG 1321 (HAMG 1021 CEU)</b><br><br><b>Course Outcomes:</b> Identify the segments and career opportunities in the hospitality industry; discuss current issues facing the hospitality industry; and discuss the impact of customer service.   |
| <b>Hotel Management</b><br><b>(1 credit)</b><br><b>(HOTELMGT) 13022300</b>              | <b>Front Office Procedures</b><br><b>HAMG 1313 ( HAMG 1013)</b><br><br><b>Course Outcomes:</b> 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.<br><br><b>OR</b><br><b>Guest Room Management</b><br><b>HAMG 1342 or 1242 (1042 CEU)</b><br><b>Course Outcomes:</b> 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 |

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|   | cleaning duties, cleaning supplies, and laundry needs of guest room services.   |
| <b>Culinary Arts</b><br><b>(1 credit)</b><br><b>(CULARTS) 13022600</b><br><br><b>Enhancement:</b> <ul style="list-style-type: none"> <li>• Serv-Safe certification <b>MUST</b> be obtained during this course for credit to be granted at the college level.</li> </ul> | <b>Sanitation and Safety</b><br><b>CHEF 1205 or CHEF 1305 (CHEF 1005 CEU)</b><br><br><b>Course Outcomes:</b> 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. |
| <b>Restaurant Management</b><br><b>(1 credit)</b><br><b>(RESTMGT) 13022400</b>  | <b>Food Service Operation/Systems</b><br><b>CHEF 1313 or 1413 (CHEF 1013 CEU)</b><br><br><b>Course Outcomes:</b> 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 2012-2013

**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.**

- Courses taken in the eighth grade (8<sup>th</sup>) will not be eligible for Advanced Technical Credit.
- 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><b>Lifetime Nutrition and Wellness</b><br/> <b>(1 credit)</b><br/> <b>(LNURTWEL) 13024500</b></p>   | <p><b>Nutrition for the Food Service Professional</b><br/> <b>IFWA 1218 or IFWA 1318 (IFWA 1018 CEU)</b><br/> <b>Course Outcomes:</b> 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><b>Child Guidance</b><br/> <b>(2 credits)</b><br/> <b>(CHILDGUI) 13024800</b></p> <p><b>ENHANCEMENTS:</b></p> <ul style="list-style-type: none"> <li>▪ Application of guidance intervention with a child</li> <li>▪ Prepare DAP schedule, routines, transitions</li> <li>▪ Thirty hours (30hrs) observation at a child care facility</li> </ul> | <p><b>Child Guidance</b><br/> <b>CDEC 1319 or CDEC 1419 (CDEC 1019 CEU)</b><br/> <b>Course Outcomes:</b> 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;"><b>OR</b></p> <p><b>Child Development Associate Training II</b><br/> <b>CDEC 2322 (CDEC 2022 CEU)</b><br/> <b>Course Outcomes:</b> 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

Effective School Year 2012-2013

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- Courses taken in the eighth grade (8<sup>th</sup>) will not be eligible for Advanced Technical Credit.
- 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><b>Principles of Information Technology</b><br/>(1 credit)<br/>(PRINIT) 13027200</p> | <p><b>Integrated Software Applications I</b><br/>ITSC 1309 or ITSC 1409 (ITSC 1009 CEU)</p> <p><b>Course Outcomes:</b> Use word processing, spreadsheet, database, and/or presentation software; and integrate applications to produce documents.</p>   |
| <p><b>Computer Maintenance</b><br/>(1 credit)<br/>(COMPMTN) 13027300</p>                | <p><b>Introduction to Computer Technology</b><br/>CPMT 1303 or CPMT 1403 (CPMT 1003 CEU)</p> <p><b>Course Outcomes:</b> Define terms, expressions and phrases associated with computers; and use basic commands in various applications.</p> <p style="text-align: center;">OR</p> <p><b>Personal Computer Hardware</b><br/>ITSC 1325 or ITSC 1425 (ITSC 1025 CEU)</p> <p><b>Course Outcomes:</b> Assemble/setup and upgrade personal computer systems; diagnose and isolate faulty components; optimize system performance; and install/connect peripherals.</p> |
| <p><b>Telecommunications and Networking</b><br/>(1 credit)<br/>(TELECOMN) 13027400</p>  | <p><b>Fundamentals of Networking Technologies</b><br/>ITNW 1325 or ITNW 1425 (ITNW 1025 CEU)</p> <p><b>Course Outcomes:</b> 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.</p>            |

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| <b>Computer Technician<br/>(2 credits)<br/>(COMPTECH) 13027500</b>         | <b>Introduction to Computer Maintenance<br/>CPMT 1311 or CPMT 1411 (CPMT 1011 CEU)</b><br><br><b>Course Outcomes:</b> Identify modules that make 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   |
| <b>Computer Programming<br/>(1 credit)<br/>(COMPPROG) 13027600</b>         | <b>Computer Programming<br/>ITSE 1302 (ITSC 1001 CEU)</b><br><br><b>Course Outcomes:</b> Design, write, test, and document computer programs.  |
| <b>Digital and Interactive Media<br/>(1 credit)<br/>(DIMEDIA) 13027800</b> | <b>Introduction to Digital Media<br/>IMED 1301 or IMED 1401 (IMED 1001 CEU)</b><br><br><b>Course Outcome:</b> 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.<br><br><p style="text-align: center;"><b>OR</b></p> <b>Digital Imaging I<br/>ARTC 1302 or ARTC 1402 (ARTC 1002 CEU)</b><br><br><b>Course Outcomes:</b> 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. |
| <b>Web Technologies<br/>(1 credit)<br/>(WEBTECH) 13027900</b>              | <b>Web Design I<br/>IMED 1316 or IMED 1416 (IMED 1016 CEU)</b><br><br><b>Course Outcomes:</b> 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.<br><br><p style="text-align: center;"><b>OR</b></p> <b>Internet/Web Page Development<br/>ITSC 1319 or ITSC 1419 (ITSC 1019 CEU)</b><br><br><b>Course Outcomes:</b> Identify basic Internet concepts and  |

terminology; use electronic communication methods; and collect and evaluate research data using the Internet.

## Law, Public Safety, Corrections and Security

### Effective School Year 2012-2013

**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.**

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- 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><b>Law Enforcement I</b><br/> <b>(1 credit)</b><br/> <b>(LAWENF1) 13029300</b></p>   | <p><b>Criminalistics I</b><br/> <b>CJSA 1308</b></p> <p><b>Course Outcomes:</b> Describe the care required in identifying, collecting, and preserving evidence for scientific examination and explain the significance of field and laboratory findings.</p>  |
| <p><b>Court Systems and Practices</b><br/> <b>(1 credit)</b><br/> <b>(COURTSP) 13029600</b></p> <p><b>Required Textbook:</b> <u>Criminal Procedure [Law and Practice]</u>, Ramon V. Del Carmen, Thompson Wordsworth, Publisher]</p> | <p><b>Fundamentals of Criminal Law</b><br/> <b>CJSA 1327</b></p> <p><b>Course Outcomes:</b> 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;"><b>OR</b></p> <p><b>Court Systems and Practices (Formerly Courts and Criminal Procedures)</b><br/> <b>CJSA 1313</b></p> <p><b>Course Outcomes:</b> 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> |

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| <p><b>Correctional Services</b><br/> <b>(1 credit)</b><br/> <b>(CORRSRVS) 13029700</b></p>  | <p><b>Basic Jail Course</b><br/> <b>CJCR 1300 or CJCR 1400 (CJCR 1000 CEU)</b></p> <p><b>Course Outcomes:</b> 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;"><b>OR</b></p> <p><b>Correctional Systems and Practices</b><br/> <b>CJCR 1307 (CJCR 1007 CEU)</b></p> <p><b>Course Outcomes:</b> 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><b>Law Enforcement II</b><br/> <b>(1 credit)</b><br/> <b>(LAWENF2) 13029400</b></p> <p><b>Special Note:</b></p> <ul style="list-style-type: none"> <li>• Teacher must have Emergency Communications Certification</li> <li>• Student must earn the Emergency Certification in order to get credit</li> </ul> | <p><b>Basic Telecommunication Certification</b><br/> <b>CJLE 1303 (CJLE 1033 CEU)</b></p> <p><b>Course Outcomes:</b> Demonstrate radio operations; identify legal issues regarding telecommunications; process radio logs and documentation; and prioritize emergency calls for management.</p>   |

# Manufacturing

## Effective School Year 2012-2013

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- 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><b>Precision Metal Manufacturing</b><br/> <b>(1 credit)</b><br/> <b>(PRECMAN) 13032500</b></p>  | <p><b>Basic Machine Shop I</b><br/> <b>MCHN 1338 or MCHN 1438 (MCHN 1038 CEU)</b><br/> <b>Course Outcomes:</b> 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, taping, 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><b>Advanced Precision Metal Manufacturing</b><br/> <b>(2 credits)</b><br/> <b>(ADVPMMA) 13032600</b></p> <p><b>Prerequisite:</b><br/> Precision Metal Manufacturing</p> | <p><b>Basic Machine Shop II</b><br/> <b>MCHN 1341 or MCHN 1441 (MCHN 1041 CEU)</b><br/> <b>Course Outcomes:</b> 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><b>Advanced Welding</b><br/> <b>(2 credits)</b><br/> <b>(ADVWELD) 13032400</b></p>  | <p><b>Introduction to Welding Fundamentals</b><br/> <b>WLDG 1421 or WLDG 1521 or WLDG 1221 or WLDG 1222 (WLDG 1021 CEU)</b><br/> <b>Course Outcomes:</b> 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><b>OR</b></p> <p><b>Introduction to Shielded Metal Arc Welding (SMAW)</b><br/> <b>WLDG 1428 or WLDG 1528 (WLDG 1028 CEU)</b><br/> <b>Course Outcomes:</b> 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> |

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| <p><b>Computer Integrated Manufacturing</b><br/>(1 credit)<br/>N1303748 (PLTW) (1) (CIM)</p> <p><b>OR</b></p> <p><b>Principles of Manufacturing</b><br/>(1 credit)<br/>13032200 (PRINMAN)<br/><b>NOTE:</b> listed on both STEM and<br/>Manufacturing clusters</p> | <p><b>Computer Integrated Manufacturing</b><br/>INMT 1311 or INMT 1411(INMT 1011 CEU)</p> <p><b>Course Outcomes:</b> Develop an understanding of computer integrated manufacturing; and employ material handling, process and/or manufacturing equipment as a system. Integrate computer software and equipment in a computer integrated manufacturing system and network a computer integrated manufacturing system</p> |
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## Marketing

Effective School Year 2012-2013

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| High School Course   | College WECM Equivalent   |
|--|---|
| <b>Marketing Dynamics</b><br><b>(2 credits)</b><br><b>(MKTGDYN) 13034700</b> | <b>Principles of Marketing</b><br><b>MRKG 1311 (MRKG 1011 CEU)</b><br><br><b>Course Outcomes:</b> 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. |
| <b>Entrepreneurship</b><br><b>(1 credit)</b><br><b>(ENTREP) 13034400</b>     | <b>Small Business Management</b><br><b>BUSG 2309 (BUSG 2009 CEU)</b><br><br><b>Course Outcomes:</b> 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 2012-2013

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- 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><b>Principles of Technology</b><br/>(1credit)<br/><b>13037100 (PRINTECH)</b></p>  | <p><b>Applied Physics I</b><br/><b>SCIT 1318 or SCIT 1418</b></p> <p><b>Course Outcomes:</b> Define terminology relating to industrial applications in physics; use appropriate measuring devices to analyze systems; apply relationships of length, mass, and time; demonstrate problem-solving techniques applied to principles of industrial physics including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics.</p> <p style="text-align: center;"><b>OR</b></p> <p><b>Applied Petrochemical Technology</b><br/><b>CTEC 1301 or CTEC 1401 (CTEC 1001 CEU)</b></p> <p><b>Course Outcomes:</b> Define terms and principles of applied physics; solve problems using basic laws of physics; and apply principles of physics to the operation of plant equipment.</p> |
| <p><b>Electronics</b><br/>(1credit)<br/><b>13036800 (ELECTRO)</b></p> <p style="text-align: center;"><b>OR</b></p> <p><b>Digital Electronics</b><br/>(1credit)<br/><b>N1303744 (PLTW) (1) (DE)</b></p> | <p><b>Electricity Principles</b><br/><b>CETT 1402 (CETT 1002 CEU)</b></p> <p>Course Outcomes: Identify basic principles of electricity (A/C and D/C), voltage, current, and circuitry; apply Ohm's law to electrical calculations; use test equipment to measure continuity voltage, and current values; and use electrical safety practices.</p> <p style="text-align: center;"><b>OR</b></p> <p><b>Instrumentation Test Equipment</b><br/><b>INTC 1207 or INTC 1307 (INTC 1007 CEU)</b></p> <p><b>Course Outcomes:</b><br/>Select, set up, and use test and measurement tools; analyze measurement results; identify test instrument limitations and parameters; and demonstrate proper safety procedures.</p>   |



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| <p><b>Engineering Design and Presentation</b><br/>(1 credit)<br/><b>13036500 (ENGDSPR)</b></p> <p><b>OR</b></p> <p><b>Introduction to Engineering Design</b><br/>(1 credit)<br/><b>N1303742 (PLTW) (1) (IED)</b></p> <p>ENHANCEMENTS:</p> <ul style="list-style-type: none"> <li>▪ Be able to demonstrate technical sketching and technical board drafting and apply them in problem-solving techniques.</li> <li>▪ Be able to transfer sketching and board drafting as problem-solving techniques in Basic CAD.</li> </ul> | <p><b>Technical Drafting</b><br/><b>DFTG 1305 or DFTG 1405 (DFTG 1005 CEU)</b></p> <p><b>Course Outcomes:</b> Create technical sketches, geometric constructions, orthographic projections, pictorial/sectional views, and dimensioned drawings.</p> <p><b>OR</b></p> <p><b>Basic Computer-Aided Drafting</b><br/><b>DFTG 1309 or DFTG 1409 (DFTG 1009 CEU)</b></p> <p><b>Course Outcomes:</b> Create technical sketches, geometric constructions, orthographic projections, pictorial/sectional views, and dimensioned drawings.</p> |
| <p><b>Civil Engineering and Architecture</b><br/>(1 credit)<br/><b>N1303747 (PLTW) (1) (CEA)</b></p> <p>ENHANCEMENTS:</p> <ul style="list-style-type: none"> <li>▪ Generate and interpret standard civil engineering plans and profile drawings.</li> </ul>   | <p><b>Civil Drafting</b><br/><b>DFTG 2330 or DFTG 2430 (DFTG 2030 CEU)</b></p> <p><b>Course Outcomes:</b> Interpret field notes; develop documents for a civil project; analyze and layout drainage and utilities infrastructure; and perform related calculations.</p>   |
| <p><b>Computer Integrated Manufacturing</b><br/>(1 credit)<br/><b>N1303748 (PLTW) (1) (CIM)</b></p> <p><b>OR</b></p> <p><b>Principles of Manufacturing</b><br/>(1 credit)<br/><b>13032200 (PRINMAN)</b></p> <p><b>NOTE:</b> listed on both STEM and Manufacturing clusters</p>  | <p><b>Computer Integrated Manufacturing</b><br/><b>INMT 1311 or INMT 1411(INMT 1011 CEU)</b></p> <p><b>Course Outcomes:</b> Develop an understanding of computer integrated manufacturing; and employ material handling, process and/or manufacturing equipment as a system. Integrate computer software and equipment in a computer integrated manufacturing system and network a computer integrated manufacturing system</p>   |

# Transportation, Distribution and Logistics

Effective School Year 2012-2013

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| HIGH SCHOOL COURSE  | COLLEGE WECM EQUIVALENT   |
|---|---|
| <p><b>Advanced Automotive Technology<br/>(2 credits)<br/>(ADVAUTOT) 13039700</b></p> <p><b>Special Note:</b><br/>Teacher must be ASE Certified in:</p> <ul style="list-style-type: none"> <li>• Electrical</li> <li>• Brakes</li> <li>• Engine Performance</li> <li>• Steering and Suspension</li> </ul> <p>Student must pass the National Automotive Student Skills Standards Assessment (NA3SA).<br/>Program facilities must be NATEF approved.</p> | <p><b>Introduction and Theory of Automotive Technology<br/>AUMT 1201 or 1301 (AUMT 1001 CEU)</b></p> <p><b>Course Outcomes:</b> 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;"><b>AND</b></p> <p><b>Automotive Suspension and Steering Systems<br/>AUMT 1316 or 1416 (AUMT 1016 CEU)</b></p> <p><b>Course Outcomes:</b> 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;"><b>AND</b></p> <p><b>Automotive Brake Systems<br/>AUMT 1310 or 1410 (AUMT 1010 CEU)</b></p> <p><b>Course Outcomes:</b> 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;"><b>OR</b></p> <p><b>Introduction to Automotive Technology<br/>AUMT 1305 or 1405 (AUMT 1005 CEU)</b></p> <p><b>Course Outcomes:</b> Utilize appropriate safety procedures; describe historical development and</p> |

career information of the automotive industry; demonstrate safe, professional, and responsible 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.