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# Agriculture

The Central Texas College Department of Agriculture offers Certificates of Completion in Agricultural Industry, Agricultural Production, as well as Horticultural and Equine Specialization. These awards are designed to provide an entry-level, industry-validated “hands-on” approach to learning.

For students wishing to pursue a Baccalaureate degree the Associate of Science degree in Agriculture Science is designed to maximize the transfer of lower level course work to the Baccalaureate degree granting public education institution within the State of Texas.

## Agriculture Science (AGR4) 010000 Associate of Science Degree

<b>First Semester</b>			<b>Credit</b>
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
DEGR REQ	AGRI 1131	The Agriculture Industry	1
DEGR REQ	AGRI 1419	Introductory Animal Science	4
CORE REQ	GOVT 2306	Texas Government	3
<b>Second Semester</b>			
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
DEGR REQ	AGRI 1309	Computers in Agriculture	3
DEGR REQ	AGRI 2330	Wildlife Conse. & Mgmt.	3
CORE REQ		Life and Physical Science Selection	4
<b>Second Year</b>			
<b>First Semester</b>			
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		MATH 1332 or 1342	3
CORE REQ		Life and Physical Science Selection	4
DEGR REQ	AGRI 1407	Agronomy	4
<b>Second Semester</b>			
DEGR REQ	AGRI 2317	Intro. to Agri. Economics	3
CORE REQ		Language/Philosophy/Culture Studies	3
CORE REQ		Social/Behavioral Science Selection	3
CORE REQ		Component Area Option	4
CORE REQ		Creative Arts Selection	3
<b>Total Hours</b>			<b>60</b>

**Agriculture Production (AGP14) 010104**  
**Associate of Applied Science Degree**

**First Year**

<b>First Semester</b>			<b>Credit</b>
AGRI	1131	The Agriculture Industry	1
AGRI	1419	Introductory Animal Science	4
ENGL	1301	Composition I	3
ELEC		Humanities/Fine Arts Selection	3
AGRI	2317	Introduction to Agriculture Economics	3

**Second Semester**

AGRI	1309	Computers in Agriculture	3
AGMG	2306	Livestock and Meat Marketing	3
ELEC		Social/Behavioral Science Selection	3
AGAH	1343	Animal Health	3

**Second Year**

**First Semester**

AGAH	2313	Principles of Feeds and Feeding	3
AGAH	1353	Beef Cattle Production	3
FDST	1323	Principles of Viticulture I	3
MATH	1342	Elementary Statistical Methods	3
AGEQ	1311	Equine Science I	3
AGMG	2486	Internship	4

**Second Semester**

AGAH	1347	Animal Reproduction	3
AGEQ	1301	Equine Behavior and Training I	3
AGRI	2330	Wildlife Conservation & Management	3
AGCR	1307	Range Management	3
SPCH		SPCH 1315 or 1321	3
<b>Total Hours</b>			<b>60</b>

**Equine Management (AGE14) 010104**  
**Associate of Applied Science Degree**

**First Year**

<b>First Semester</b>			<b>Credit</b>
AGRI	1131	The Agriculture Industry	1
AGRI	1419	Introductory Animal Science	4
ENGL	1301	Composition I	3
AGRI	2317	Introduction to Agriculture Economics	3
AGEQ	1319	Western Horsemanship I	3

**Second Semester**

AGRI	1309	Computers in Agriculture	3
AGEQ	1301	Equine Behavior and Training I	3
AGAH	1343	Animal Health	3
AGEQ	2339	Western Horsemanship II	3
AGEQ	1311	Equine Science I	3
AGMG	2306	Livestock and Meat Marketing	3

**Second Year**

**First Semester**

AGAH	2313	Principles of Feeds and Feeding	3
ELEC		Humanities/Fine Arts Selection	3
MATH	1342	Elementary Statistical Methods	3
ELEC		Social/Behavioral Science Selection	3
AGMG	2486	Internship	4

**Second Semester**

AGEQ	2301	Equine Behavior and Training II	3
AGEQ	2311	Equine Science II	3
AGCR	1307	Range Management	3
AGRI	2330	Wildlife Conservation Management	3
<b>Total Hours</b>			<b>60</b>

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## Horticultural Development (AGH14) 010104

### Associate of Applied Science Degree

#### First Year

##### First Semester

			<b>Credit</b>
AGRI	1419	Introductory Animal Science	4
ENGL	1301	Composition I	3
AGRI	2317	Introduction to Agriculture Economics	3
AGRI	1309	Computers in Agriculture	3

##### Second Semester

HALT	1345	Golf/Sports Field/Park Management	3
or			
HALT	1324	Turfgrass Science and Management	3
AGRI	1407	Agronomy	4
ELEC		Humanities/Fine Arts Selection	3
FDST	1323	Principles of Viticulture I	3
AGRI	1415	Horticulture	4

#### Second Year

##### First Semester

HALT	1470	Horticulture - Home Gardening	4
MATH	1342	Elementary Statistical Methods	3
HALT	1319	Landscape Construction	3
or			
HALT	1322	Landscape Design	
BIOL	1411	General Botany	4
AGMG	2486	Internship	4

##### Second Semester

FDST	2330	Principles of Viticulture II	3
HALT	2308	Greenhouse Management	3
ELEC		Social/Behavioral Science Selection	3
AGCR	2318	Soil Science	3
<b>Total Hours</b>			<b>60</b>

## Agricultural Industries (AGI13) 010104 Certificate of Completion

<b>First Semester</b>			<b>Credit</b>
AGRI	1309	Computers in Agriculture	3
AGRI	1131	Agriculture Industry	1
AGRI	1407	Agronomy	
or			
AGRI	1419	Introduction to Animal Science	4
AGCR	1307	Range Management	3
AGEQ	1311	Equine Science I	3
<b>Second Semester</b>			
AGRI	2330	Wildlife Conservation and Mgmt.	3
AGAH	1347	Animal Reproduction	
or			
AGAH	1353	Beef Cattle Management	3
AGAH	1343	Animal Health	3
AGEQ	2311	Equine Science II	
or			
HALT	1322	Landscape Design	3
<b>Third Semester</b>			
AGEQ	1301	Equine Behavior and Training I	
or			
HALT	2308	Greenhouse Management	3
FDST	1323	Principles of Viticulture I	3
AGRI	2317	Introduction to Agriculture Economics	3
AGAH	2313	Principles of Feeds and Feeding	
or			
AGCR	2318	Soil Science	3
<b>Fourth Semester</b>			
AGEQ	1319	Western Horsemanship I	
or			
HALT	1319	Landscape Construction	3
AGEQ	2301	Equine Behavior and Training II	
or			
HALT	1345	Golf/Sports Field/Park Management	3
AGMG	2306	Livestock and Meat Marketing	3
AGMG	2486	Internship	4
<b>Total Hours</b>			<b>51</b>

## Production Technology (AGP15) 010104 Certificate of Completion

<b>First Semester</b>			<b>Credit</b>
AGRI	1131	The Agriculture Industry	1
AGRI	1419	Introductory Animal Science	4
AGEQ	1311	Equine Science I	3
AGRI	1309	Computers in Agriculture	3
<b>Second Semester</b>			
AGRI	1407	Agronomy	4
AGRI	2330	Wildlife Conservation and Management	3
HALT	1470	Horticulture - Home Gardening	4
AGCR	1307	Range Management	3
AGRI	2317	Agriculture Economics	3
<b>Total Hours</b>			<b>28</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Automotive Mechanic

*This program is designed for the student who wishes to enter the Automotive Repair career field. It provides entry-level, industry-validated, hands-on learning covering the entire spectrum of Automotive Service and Repair using the latest technologies in automotive systems, tools, and equipment. Instruction is to ASE requirements.*

*The certificates of completion within this program may be completed through the Vocational Skills Center. The Vocational Skills Center offers students instruction through a self-paced, open-entry delivery format. This instructional clock hour format provides flexibility to accommodate the special needs of the student.*

## Automotive Mechanic/Technician (AUM15) 470604 Associate of Applied Science Degree

### First Year

First Semester			Credit
AUMT	1405	Intro. to Automotive Technology	4
AUMT	2305	Automotive Engine Theory	3
AUMT	1407	Automotive Electrical Systems	4
AUMT	2337	Automotive Electronics	3
MATH	1332	Contemporary Mathematics	3

### Second Semester

AUMT	1472	Automotive Computer Systems	4
AUMT	1445	Automotive Climate Control Systems	4
AUMT	1410	Automotive Brake Systems	4
AUMT	2413	Automotive Drive Train and Axles	4
ENGL	1301	Composition I	3

### Second Year

#### First Semester

SPCH		SPCH 1315 or 1321	3
AUMT	1416	Automotive Suspension and Steering Systems	4
AUMT	2425	Automotive Automatic Transmission and Transaxle	4
AUMT	1319	Automotive Engine Repair	3

#### Second Semester

GOVT	2305	Federal Government	3
ELEC		Humanities/Fine Arts Selection	3
AUMT	2417	Automotive Engine Performance Analysis I	
or			
AUMT	2488	Internship	4

**Total Hours** 60

## Automotive Technician (AUT5) 470604 Certificate of Completion

			Cr/Clock
AUMT	1405	Intro. to Automotive Technology	4/96
AUMT	2305	Automotive Engine Theory	3/64
AUMT	1407	Automotive Electrical Systems	4/144
AUMT	2337	Automotive Electronics	3/96
AUMT	1319	Automotive Engine Repair	3/96
AUMT	1445	Automotive Climate Control Systems	4/128
AUMT	1472	Automotive Computer Systems	4/144
AUMT	1410	Automotive Brake Systems	4/128
AUMT	1416	Automotive Suspension and Steering Systems	4/128
AUMT	2413	Automotive Drive Train and Axles	4/128
AUMT	2425	Automotive Automatic Transmission and Transaxle	4/128
AUMT	2434	Automotive Engine Performance Analysis II	4/144
AUMT	2417	Automotive Engine Performance Analysis I	4/144
or			
AUMT	2488	Internship	4/304
<b>Total Hours</b>			<b>49</b>
<b>Total Clock Hours</b>			<b>1568/1776</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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**Basic Automotive Technician (AUB13) 470604**  
**Certificate of Completion**

			<b>Cr/Clock</b>
AUMT	1405	Intro. to Automotive Technology	4/96
AUMT	1407	Automotive Electrical Systems	4/144
AUMT	1410	Automotive Brake Systems	4/128
AUMT	1416	Automotive Suspension and Steering Systems	4/128
AUMT	2305	Automotive Engine Theory	3/64
<b>Total Hours</b>			<b>19</b>
<b>Total Clock Hours</b>			<b>560</b>

**Automotive System Specialist (AUSS5) 470604**  
**Certificate of Completion**

*(Requires AUB13 completion)*

			<b>Cr/Clock</b>
AUMT	2337	Automotive Electronics	3/96
AUMT	1445	Automotive Climate Control Systems	4/128
AUMT	2413	Automotive Drive Train and Axles	4/128
AUMT	2425	Automotive Automatic Transmissions and Transaxles	4/128
WLDG	2413	Intermediate Welding Using Multiple Processes	4/144
<b>Total Hours</b>			<b>19</b>
<b>Total Clock Hours</b>			<b>624</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Aviation Science

The Central Texas College Aviation Science Department offers a two year program leading to an Associate of Applied Science degree and the Commercial Pilot Certificate with an Instrument Airplane rating. The curriculum includes 14 core aviation classes which are transferable to upper level institutions that offer Baccalaureate degrees in aviation. The Central Texas College Flight Training is conducted under Federal Aviation Association (FAA) regulations for FAR 141 Approved Schools. The local area offers an excellent training environment, which allows for efficient use of flight time. Central Texas College also offers advanced flight training for Flight Instructors and for Multi-Engine ratings. Extra curriculum activities include Alpha ETA Rho, the National Intercollegiate Aviation Fraternity and the Central Texas College Precision Flight Team which competes in the National Intercollegiate Flying Association (NIFA) competitions. Central Texas College is a member of the University Aviation Association.

## Aviation Science (AVS15) 490102 Associate of Applied Science Degree

### First Year

First Semester			Credit
AIRP	1315	Private Flight	3
AIRP	1417	Private Pilot Ground School	4
AIRP	1305	Aircraft Science	3
AIRP	1307	Aviation Meteorology	3
ENGL	1301	Composition I	3
Second Semester			
AIRP	1255	Intermediate Flight	2
AIRP	1341	Advanced Air Navigation	3
AIRP	2355	Propulsion Systems	3
MATH	1314	College Algebra	3
ENGL	1302	Composition II	3

### Second Year

First Semester			
AIRP	2250	Instrument Flight	2
AIRP	1451	Instrument Ground School	4
AIRP	1343	Aerodynamics	3
ELEC		Science Selection (with Lab)	4
GOVT	2305	Federal Government	3
Second Semester			
AIRP	2239	Commercial Flight	2
AIRP	2337	Commercial Ground School	3
AVIM	2331	Airline Management	3
ELEC		Fine Arts Selection	3
ELEC		Humanities Elective (Literature)	3
<b>Total Hours</b>			<b>60</b>

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# Business

The Business Administration and Legal Assistant/Paralegal Department at Central Texas College offers 21 degrees and certificates through three divisions. Degree attainment in the career fields of business management, the hospitality industry, the legal assistant profession, homeland security, and real estate are available.

The Associate of Science degree in Business Administration is designed for the student wishing to pursue a Baccalaureate degree. The Central Texas College curriculum is designed to maximize the transfer of lower level course work to the Baccalaureate degree granting public education institution within the State of Texas.

The Associate of Applied Science and the certificate awards are designed to provide an entry-level, industry-validated "hands-on" approach to learning.

## Business Administration (BUB15) 520101 Associate of Science Degree

First Semester			Credit
DEGR REQ	BUSI 1301	Business Principles	3
CORE REQ		Life and Physical Science Selection	4
CORE REQ	HIST 1301	U.S. History I	3
CORE REQ	ENGL 1301	Composition I	3
DEGR REQ	BCIS 1305	Business Computer Apps.	3
Second Semester			
CORE REQ		Life and Physical Science Selection	4
CORE REQ	HIST 1302	U.S. History II	3
CORE REQ	ECON 2301	Macroeconomics	3
CORE REQ	MATH 1314	College Algebra	3
Second Year			
First Semester			
DEGR REQ	ENGL 1302	Composition II	3
DEGR REQ	ACCT 2301	Principles of Financial Accounting	3
CORE REQ		Language/Philosophy/Culture (PHIL 1301*)	3
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		Component Area Option	4
Second Semester			
DEGR REQ	ACCT 2302	Principles of Managerial Accounting	3
CORE REQ	GOVT 2306	Texas Government	3
DEGR REQ		Social/Behavioral Science Selection (ECON 2302*)	3
CORE REQ		Communications (SPCH 1321)	3
CORE REQ		Creative Arts	3
<b>Total Hours</b>			<b>60</b>

\* For students transferring to Universities with the State of Texas, MATH 1314, PHIL 1301 and ECON 2302 are highly recommended.



## Business Management (BUBM5) 520201

### Associate of Applied Science Degree

#### First Year

First Semester			Credit
HRPO	1311	Human Relations	3
ENGL	1301	Composition I	3
ELEC		Humanities/Fine Arts Selection	3
BUSI	1301	Business Principles	3
SPCH		SPCH 1315 or 1321	3
KINE		Physical Activity Course	1

#### Second Semester

BMGT	1325	Office Management	3
BMGT	1327	Principles of Management	3
MRKG	1311	Principles of Marketing	3
ELEC		BMGT 2370, BMGT 2488 or RELE 2488	3
KINE		Physical Activity Course	1

#### Second Year

##### First Semester

MATH		MATH 1332, 1342 or higher level	3
ACCT	2301	Principles of Financial Accounting	
		or	
ACNT	1303	Introduction to Accounting I	3
HRPO	2301	Human Resource Management	3
BUSG	2305	Business Law/Contracts	
		or	
BUSI	2301	Business Law	3
ECON		ECON 2301 or 2302	3

##### Second Semester

BUSG	2309	Small Business Management	3
ACCT	2302	Principles of Managerial Accounting	
		or	
ACNT	1304	Introduction to Accounting II	3
ENGL	1302	Composition II	3
		or	
BCIS	1305	Business Computer Applications	
		or	
ITSC	1309	Integrated Software Applications	
BMGT	1301	Supervision	3
ELEC		BMGT 2371, 2489, BUSG 1371 or RELE 2489	4

**Total Hours** **60**

## Business Management (BUBM5) 520201

### Certificate of Completion

First Semester			Credit
BUSI	1301	Business Principles	3
BMGT	1327	Principles of Management	3
HRPO	1311	Human Relations	3
ITSC	1309	Integrated Software Applications I	
		or	
BCIS	1305	Business Computer Applications	3
MRKG	1311	Principles of Marketing	3
Second Semester			
HRPO	2301	Human Resource Management	3
BMGT	1301	Supervision	3
BUSG	2305	Business Law/Contracts	
		or	
BUSI	2301	Business Law	3
ELEC		ACNT/BMGT/BUSG/BUSI/RELE/MRKG	3
ELEC		BMGT 2370, BMGT 2488, BUSG 1371 or RELE 2488	3-4
<b>Total Hours</b>			<b>30-31</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

**Entrepreneurship (BUEN5) 520201**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
BUSG	2309	Small Business Management	3
POFT	1325	Business Math Using Technology	3
or			
MATH		MATH 1332, 1342 or higher level	
ITSC	1309	Integrated Software Applications	
or			
BCIS	1305	Business Computer Applications	3
MRKG	1311	Principles of Marketing	3
ACCT	2301	Principles of Financial Accounting	
or			
ACNT	1303	Introduction to Accounting I	3
<b>Second Semester</b>			
HRPO	2301	Human Resource Management	3
BUSG	2305	Business Law/Contracts	
or			
BUSI	2301	Business Law	3
ELEC		BUSI/BMGT/BUSG/RELE/IMED/MRKG/ACNT	3
BUSG	1303	Principles of Finance	3
BUSG	1371	Entrepreneurship and Business Plan Development	3
<b>Total Hours</b>			<b>30</b>

**Accounting Technician (BMAT) 520302**  
**Associate of Applied Science Degree**

<b>First Year</b>			
<b>First Semester</b>			<b>Credit</b>
ACNT	1303	Introduction to Accounting I	3
or			
ACCT	2301	Principles of Financial Accounting	
ENGL	1301	Composition I	3
MATH	1332	Contemporary Mathematics (Quantitative Reasoning)	3
BUSI	1301	Business Principles	3
BCIS	1305	Business Computer Applications	3
or			
ITSC	1309	Integrated Software Applications I	
<b>Second Semester</b>			
ACNT	1304	Introduction to Accounting II	3
or			
ACCT	2302	Principles of Managerial Accounting	
ACNT	1311	Introduction to Computerized Accounting	3
BMGT	1325	Office Management	3
ACNT	1329	Payroll and Business Tax Accounting	3
BUSI	2301	Business Law	3
or			
BUSG	2305	Business Law/Contracts	
<b>Second Year</b>			
<b>First Semester</b>			
ELEC		Humanities/Fine Arts Elective	3
ELEC		Social & Behavioral Science Elective	3
ECON	2301	Principles of Macroeconomics	3
SPCH	1315	Public Speaking	3
or			
SPCH	1321	Business and Professional Communications	
MATH	1342	Elementary Statistical Methods	3
<b>Second Semester</b>			
BUSG	1303	Principles of Finance	3
HRPO	2301	Human Resources Management	3
ECON	2302	Principles of Microeconomics	3
ACNT	1331	Federal Income Tax Individual	3
BUSG	1371	Entrepreneurship and Business Plan Development	3
<b>Total Hours</b>			<b>60</b>

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**Business Management Accounting Specialist (BMAS) 520201  
Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
ACNT	1303	Introduction to Accounting I	3
ACNT	1304	Introduction to Accounting II	3
ACNT	1311	Introduction to Computerized Accounting	3
ACNT	1329	Payroll and Business Tax Accounting	3
ACNT	1331	Federal Income Tax: Individual	3
BUSG	1303	Principles of Finance	3
<b>Total Hours</b>			<b>18</b>

**Business Management Accounting Technician (BMAT) 520201  
Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
ACNT	1303	Introduction to Accounting I	3
ENGL	1301	Composition I	3
BMGT	1325	Office Management	3
MATH	1332	Contemporary Mathematics (Quantitative Reasoning)	3
BCIS	1305	Business Computer Applications	
or			
ITSC	1309	Integrated Software Applications	3
<b>Second Semester</b>			
ACNT	1304	Introduction to Accounting II	3
ACNT	1311	Introduction to Computerized Accounting	3
BUSI	2301	Business Law	
or			
BUSG	2305	Business Law/Contracts	3
ACNT	1329	Payroll and Business Tax Accounting	
or			
ACNT	1331	Federal Income Tax: Individual	3
BUSG	1303	Principles of Finance	3
<b>Total Hours</b>			<b>30</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

**Business Management Marketing and Sales Management Specialization  
(BUMS5) 520201  
Associate of Applied Science Degree**

**First Year**

<b>First Semester</b>			<b>Credit</b>
HRPO	1311	Human Relations	3
ENGL	1301	Composition I	3
BUSI	1301	Business Principles	3
ITSC	1309	Integrated Software Applications I	
or			
BCIS	1305	Business Computer Applications	3
SPCH		SPCH 1315 or 1321	3

**Second Semester**

MATH		MATH 1332, 1342 or higher level	3
MRKG	1311	Principles of Marketing	3
BMGT	1325	Office Management	3
MRKG	1302	Principles of Retailing	3
ELEC		BMGT 2370, 2488 or RELE 2488	3

**Second Year**

**First Semester**

ECON		ECON 2301 or 2302	3
ELEC		Humanities/Fine Arts Selection	3
ELEC		BMGT/BUSI/BUSG/RELE/ACNT	3
ACCT	2301	Principles of Financial Accounting	
or			
ACNT	1303	Introduction to Accounting I	3

**Second Semester**

ACCT	2302	Principles of Managerial Accounting	
or			
ACNT	1304	Introduction to Accounting II	3
BUSG	2305	Business Law/Contracts	
or			
BUSI	2301	Business Law	3
MRKG	2333	Principles of Selling	3
ELEC		Elective	3
ELEC		BMGT/BUSI/BUSG/RELE	3
ELEC		BMGT 2371, 2489 or RELE 2489	3
<b>Total Hours</b>			<b>60</b>

**Business Management Marketing and Sales Management (BUMS5) 520201  
Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
HRPO	1311	Human Relations	3
BUSI	1301	Business Principles	3
ITSC	1309	Integrated Software Applications I	
or			
BCIS	1305	Business Computer Applications	3
ELEC		BMGT/BUSI/BUSG/RELE/HRPO	3
<b>Second Semester</b>			
MRKG	1311	Principles of Marketing	3
MRKG	2333	Principles of Selling	3
ELEC		BUSI/BMGT/BUSG/RELE/MRKG	3
ELEC		BMGT 2370, BMGT 2488, or RELE 2488	3-4
<b>Total Hours</b>			<b>24-25</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

**Business Management Real Estate Specialization (BUR15) 520201**  
**Associate of Applied Science Degree**

**First Year**

<b>First Semester</b>			<b>Credit</b>
HRPO	1311	Human Relations	3
ENGL	1301	Composition I	3
BUSI	1301	Business Principles	3
ITSC	1309	Integrated Software Applications I	
		or	
BCIS	1305	Business Computer Applications	3
SPCH		SPCH 1315 or 1321	3

**Second Semester**

MATH		MATH 1332, 1342 or higher level	3
MRKG	1311	Principles of Marketing	3
BMGT	1325	Office Management	3
RELE	1406	Real Estate Principles	4

**Second Year**

**First Semester**

ELEC		RELE 2488, BMGT 2488 or 2370	3
ECON		ECON 2301 or 2302	3
ELEC		Humanities/Fine Arts Selection	3
RELE	1311	Law of Contracts	3
RELE	2301	Law of Agency	3
ACCT	2301	Principles of Financial Accounting	
		or	
ACNT	1303	Introduction to Accounting I	3

**Second Semester**

RELE	1200	Contract Forms and Addenda	2
RELE	1219	Real Estate Finance	2
MRKG	2333	Principles of Selling	3
RELE	1315	Property Management	3
RELE	2489	Internship	4
<b>Total Hours</b>			<b>60</b>

**Business Management Real Estate Sales Agent (BUR13) 520201**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
RELE	1406	Principles of Real Estate*	4
RELE	2301	Law of Agency*	3
RELE	1311	Law of Contracts*	3
RELE	1200	Contract Forms and Addenda*	2
<b>Second Semester</b>			
RELE	1219	Real Estate Finance*	2
RELE	2488	Internship	4
<b>Total Hours</b>			<b>18</b>

\* Upon successful completion of these courses, the student is eligible to sit for the Texas Real Estate Sales Agent License exam.

This meets the revised Texas Real Estate Commission Education requirements effective September 1, 2012.

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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**Business Management Supervision (BUS17) 520201**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
BUSI	1301	Business Principles	3
BMGT	1301	Supervision	3
BMGT	1327	Principles of Management	3
HRPO	1311	Human Relations	3
<b>Second Semester</b>			
HRPO	2301	Human Resources Management	3
BUSG	2309	Small Business Management	3
<b>Total Hours</b>			<b>18</b>

*Not currently available for registration (State and/or Accreditation approval pending)*

**Human Resources Management (HRM17) 520201**  
**Certificate of Completion**

			<b>Credits</b>
BUSI	1301	Business Principles	3
HRPO	2301	Human Resources Management	3
HRPO	1311	Human Relations	3
POFT	1301	Business English	3
BMGT	1325	Administrative Office Management	3
ACNT	1329	Payroll and Business Tax Accounting	3
<b>Total Hours</b>			<b>18</b>

*Not currently available for registration (State and/or Accreditation approval pending)*

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Child Development

*People working with young children must have special skills: knowledge of child development, boundless patience, good judgment, real strength of character, and maturity to exercise the balance of control and latitude such young children require. Few fields offer so many job opportunities for people with such varying levels of education, in such a variety of settings, and with as many different scheduling patterns.*

## Child Development (CDS15) 190709 Associate of Applied Science Degree

### First Year

#### First Semester

			Credit
CDEC/TECA	1311	Educating Young Children	3
CDEC	1313	Curriculum Resources for Early Childhood Programs	3
CDEC	1319	Child Guidance	3
CDEC	1164	Practicum - Child Development	1
ENGL	1301	Composition I	3
CDEC	1359	Children with Special Needs	3

#### Second Semester

CDEC	1358	Creative Arts for Early Childhood	3
CDEC/TECA	1354	Child Growth and Development	3
CDEC/TECA	1318	Wellness of the Young Child	3
CDEC/TECA	1303	Families, School and Community	3
CDEC	1321	The Infant and Toddler	3

### Second Year

#### First Semester

CDEC	1356	Emergent Literacy for Early Childhood	3
CDEC	2164	Practicum - Child Development	1
CDEC	2307	Math & Science for Early Childhood	3
CDEC	2326	Administration of Programs for Children I	
or			
CDEC	2328	Admin. of Programs for Children II	3
SPCH		SPCH 1315, 1318, 1321 or 2341	3
MATH		MATH 1324, 1332, 1342 or higher level	
or			
ENVR	1401	Environmental Science I	4

#### Second Semester

BCIS	1305	Business Computer Applications	3
KINE		Physical Activity Course	1
CDEC	2288	Internship - Child Care Provider/Assistant	2
ELEC		Humanities/Fine Arts Selection	3
ELEC		Social/Behavioral Science Selection	3
<b>Total Hours</b>			<b>60</b>

**Child Development (CDS15) 190701**  
**Certificate of Completion**

**First Year**

<b>First Semester</b>		<b>Credit</b>	
CDEC/TECA	1311	Educating Young Children	3
CDEC	1313	Curriculum Resources for Early Childhood Programs	3
CDEC	1319	Child Guidance	3
ENGL	1301	Composition I	3
CDEC	1359	Children with Special Needs	3
KINE		Physical Activity Course	1

**Second Semester**

CDEC/TECA	1354	Child Growth and Development	3
CDEC/TECA	1318	Wellness of the Young Child	3
CDEC/TECA	1303	Families, School and Community	3
ELEC		Computer Technology Skills (BCIS)	3
MATH		MATH 1324, 1332, 1342 or higher level	3

**Third Semester**

SPCH		SPCH 1315, 1318, 1321 or 2341 (SPCH 1315 is preferred)	3
ELEC		Humanities/Fine Arts Selection	3
ELEC		Social/Behavioral Science Selection	3
CDEC	2326	Administration of Programs for Children I	3
CDEC	1356	Emergent Literacy for Early Childhood	3
<b>Total Hours</b>			<b>46</b>

**Administrator's Credentials (CDA14) 190708**  
**Certificate of Completion**

<b>First Semester</b>		<b>Credit</b>	
CDEC/TECA	1311	Educating Young Children	3
CDEC/TECA	1303	Families, School and Community	3
CDEC	1313	Curriculum Resources for Early Childhood Programs	3
CDEC	1319	Child Guidance	3
CDEC	2326	Administration of Programs for Children I	3
ENGL	1301	Composition I	3

**Second Semester**

CDEC/TECA	1354	Child Growth and Development	3
CDEC/TECA	1318	Wellness of the Young Child	3
CDEC	2328	Administration of Programs for Children II	3
CDEC	1164	Practicum - Child Development	1
ELEC		Computer Technology Skills	3
<b>Total Hours</b>			<b>31</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*



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## Child and Youth Serving Professional (CYSP) 190708 Certificate of Completion

### First Year

First Semester		Credit	
CDEC/TECA	1303	Families, School and Community	3
CDEC	1319	Child Guidance	3
KINE	1306	First Aid	3
KINE	1321	Coaching/Sports/Athletics I	3
CDEC	1359	Children with Special Needs	3

### Second Semester

CDEC/TECA	1354	Child Growth and Development	3
BUSG	2309	Small Business Management	3
CDEC	2341	The School Age Child	3
SPCH	1318	Interpersonal Communication	3
ITSC	1309	Integrated Software Applications I	3
<b>Total Hours</b>			<b>30</b>

## Child Development Associate (CDCD) 190709 Occupational Skills Achievement

Upon successful completion, students are eligible to continue to pursue the CDA, National Credentialing program.

			Credit
CDEC	1317	Child Development Associate Training I	3
CDEC	2322	Child Development Associate Training II	3
CDEC	2324	Child Development Associate Training III	3
<b>Total Hours</b>			<b>9</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Communications

The Communications Department at Central Texas College provides students with an academic foundation in English, speech, foreign language, and journalism to help them be successful in their chosen career field. The department offers Associates of Arts degrees in journalism and modern languages, both of which are designed for maximum transfer of lower-level course work to upper-level education institutions.

The Communications Department also offers many opportunities for students to become involved in activities that can enhance their educational experience. The Spanish Club offers students the opportunity to make new friends and practice their Spanish-speaking skills. Journalism students publish a monthly student newspaper. *Byways*, CTC's annual journal of arts and letters, publishes original art and writing by CTC students. The CTC Speech Team offers interested students an outstanding opportunity to improve speaking skills through competitions with two- and four-year schools around the state. The department also sponsors a local chapter of the Sigma Kappa Delta National English Honor Society.

Additionally, the Communications Department provides foundation skills for students interested in pursuing a degree in radio and television broadcasting. (See degree plans under Radio and Television Broadcasting.)

## Journalism/Communications (COM5) 090401

### Associate of Arts Degree

First Semester			Credit
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ		Creative Arts Selection	3
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Language/Philosophy/Culture Studies	3
Second Semester			
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	4
CORE REQ		Life and Physical Science Selection	4
CORE REQ		Social/Behavioral Science Selection	3
Second Year			
First Semester			
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		MATH 1332, 1342 or 1314	3
CORE REQ		Life and Physical Science Selection	4
DEGR REQ	COMM 1307	Intro. to Mass Comm.	3
DEGR REQ	COMM 2311	Media Writing	3
Second Semester			
DEGR REQ	COMM 2315	News Reporting	3
DEGR REQ	COMM 2389	Academic Cooperative	3
DEGR REQ	COMM 2327	Introduction to Advertising	3
DEGR REQ	COMM 1335	Survey of Radio/TV	3
<b>Total Hours</b>			<b>60</b>

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## Modern Language (FLA4) 160101

### Associate of Arts Degree

<b>First Semester</b>		<b>Credit</b>	
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ		Creative Arts Selection	3
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ	LANG 1411	Beginning Foreign Language	4
<b>Second Semester</b>			
CORE REQ	SPCH 1315, 1318 or 1321		3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	3
CORE REQ		Life and Physical Science Selection	4
CORE REQ		Social/Behavioral Science Selection	3
<b>Second Year</b>			
<b>First Semester</b>			
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		MATH 1332, 1342 or 1314	3
CORE REQ		Life and Physical Science Selection	4
DEGR REQ	LANG 1412	Beg. Foreign Language II	4
<b>Second Semester</b>			
DEGR REQ	LANG 2311	Intermediate Foreign Lang.	3
DEGR REQ	LANG 2312	Intermediate Foreign Lang.	3
DEGR REQ	ANTH 2351	Cultural Anthropology	3
DEGR REQ	HUMA 1315	Fine Arts Appreciation	3
DEGR REQ		KINE Physical Activity Course	2
<b>Total Hours</b>			<b>60</b>

# Computer Information Technology and Systems

Selecting the appropriate degree plan is a critical step for entering Computer Information Technology & Systems (CITS) students. Each degree and certificate leads to a specific career in the field of information technology. Students should gather information about these fields from many different sources so they can make an informed decision.

## Information Security (CSS15) 111003 Associate of Applied Science Degree

The security manager determines policies and procedures to safeguard data on computers and networks, and monitors compliance. As ever increasing amounts of personal, business, and national security information is stored on computers, special attention must be paid to its security. Information must be protected as a business asset, to assure privacy, and to further national security.

### First Year

First Semester			Credit
ITSC	1309	Integrated Software Applications I	3
ITSE	1329	Programming Logic and Design	3
ITSY	1342	Information Technology Security (CompTIA Security+)	3
ENGL	1301	Composition I	3
MATH	1314	College Algebra	3

### Second Semester

ITSC	1405	Introduction to PC Operating Systems	4
ITNW	1358	Network+ (CompTIA Network+)	3
ENGL	2311	Technical and Business Writing	3
ELEC		PSYC 2301 or PSYC 2315 or PHIL 1301 or SOCI 1301	3

### Second Year

#### First Semester

ITSC	1325	Personal Computer Hardware	3
or			
CPMT	1345	Computer Systems Maintenance	
HMSY	1370	IT Security for Homeland Security Specialist	3
ITSY	2401	Firewalls and Network Security	4
HUMA	1315	Fine Arts Appreciation	3
HMSY	2337	Managing a Unified Incident Command	3

#### Second Semester

ITSY	2442	Incident Response and Handling	4
ITSC	1415	Project Management Software	4
ITSY	2441	Security Management Practices	4
ITSY	2459	Security Assessment & Auditing	4
or			
ITSY	2486	Internship – Computer and Information Systems Security	4
<b>Total Hours</b>			<b>60</b>

## Cybersecurity (CSUR5) 111003 Certificate of Completion

First Semester			Credit
ITNW	1358	Network+	3
ITSY	1342	Information Technology Security (CompTIA Security+)	3
ITSY	2401	Firewalls and Network Security	4
Second Semester			
ITSY	2442	Incident Response and Handling	4
ITSY	2441	Security Management Practices	4
ITSY	2459	Security Assessment & Auditing	4
Total Hours			22

Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)

## Information Technology (CSI17) 110103

### Associate of Applied Science Degree

*The primary job function of the Information Management professional is to assist others with using computer technology in the performance of their jobs. This requires a general knowledge of PC hardware and software, to include operating systems and applications such as word processors and spreadsheets, and the internet. This degree offers a clear path to understanding computers and today's technology.*

#### First Year

First Semester			Credit
COSC	1301	Introduction to Computing	3
ITSC	1309	Integrated Software Applications I	3
ITSC	1325	Personal Computer Hardware (CompTIA A+)	3
or			
CPMT	1345	Computer Systems Maintenance	
ITNW	1358	Network+ (CompTIA Network+)	3
ENGL	1301	Composition I	3

#### Second Semester

ITSC	1405	Introduction to PC Operating Systems	4
ITNW	1337	Introduction to the Internet	3
ENGL	2311	Technical and Business Writing	3
ITSY	1342	Information Technology Security (CompTIA Security+)	3
MATH	1314	College Algebra	3

#### Second Year

##### First Semester

ITNW	1316	Network Administration	3
ITSC	1415	Project Management Software	4
IMED	1316	Web Design I	3
ITSE	1329	Programming Logic and Design	3
ELEC		PSYC 2301 or PSYC 2315 or PHIL 1301 or SOCI 1301	3

##### Second Semester

ITSE	1302	Computer Programming (Visual Basic)	3
ITSW	1307	Introduction to Database	3
HUMA	1315	Fine Arts Appreciation	3
ITSC	2435	Application Software Problem Solving	
or			
ITSC	2486	Internship – Computer and Information Sciences, General	4
<b>Total Hours</b>			<b>60</b>

## Network Systems Administrator (CSN17) 111001

### Associate of Applied Science Degree

*A Network Systems Administrator plans, installs, and maintains multi-user networks. Job duties include: networking systems with different types of hardware and operating systems, ensuring system security and integrity, troubleshooting and repairing network problems, training network users, and writing documentation.*

#### First Year

First Semester			Credit
ITSC	1309	Integrated Software Applications I	3
CETT	1325	Digital Fundamentals	3
ITNW	1358	Network+ (CompTIA Network+)	3
ENGL	1301	Composition I	3
MATH	1314	College Algebra	3

#### Second Semester

ITSE	1329	Programming Logic and Design	3
ITNW	1337	Introduction to the Internet	3
ITNW	1316	Network Administration	3
ENGL	2311	Technical and Business Writing	3
ELEC		PSYC 2301 or PSYC 2315 or PHIL 1301 or SOCI 1301	3

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**Second Year****First Semester**

IMED	1316	Web Design I	3
ITSC	1415	Project Management Software	4
ITSY	2401	Firewalls and Network Security	4
ITNW	1345	Implementing Network Directory Services	3
ITNW	1353	Supporting Network Server Infrastructure	3

**Second Semester**

ITNW	2356	Designing a Network Directory Infrastructure	3
ITNW	2354	Internet/Intranet Server	3
HUMA	1315	Fine Arts Appreciation	3
ITNW	1454	Implementing and Supporting Servers	
or			
ITNW	2488	Internship – Computer Systems Networking/Telecommunications	4
<b>Total Hours</b>			<b>60</b>

**Computer Helpdesk Specialist (CSI17) 111006  
Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
ITSC	1309	Integrated Software Applications I	3
ITSC	1325	Personal Computer Hardware (CompTIA A+)	3
or			
CPMT	1345	Computer Systems Maintenance	
ITNW	1358	Network+ (CompTIA Network+)	3
ITNW	1337	Introduction to the Internet	3
ITSC	1405	Introduction to PC Operating Systems	4

**Second Semester**

ITSY	1342	Information Technology Security (CompTIA Security+)	3
ITSC	1415	Project Management Software	4
ITSE	1329	Programming Logic and Design	3
ITSC	2439	Personal Computer Help Desk Support	4
<b>Total Hours</b>			<b>30</b>

**Web Technologies (CSW17) 110801  
Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
ITNW	1337	Introduction to the Internet	3
ITSY	1342	Information Technology Security (CompTIA Security+)	3
ITSE	1329	Programming Logic and Design	3
<b>Second Semester</b>			
IMED	1316	Web Design I	3
ITSW	1307	Introduction to Database	3
ITSE	2402	Intermediate Web Programming (PHP/Scripting/Mobile Apps)	4
<b>Total Hours</b>			<b>19</b>

**IT Industry Certification Preparation Program (MCS17) 111001  
Certificate of Completion**

*Upon successful completion of each course listed below the student can attempt certification exams offered by independent companies leading to certification as a MCITP Server Administrator, or CompTIA's Network+, or Security + certification.*

			<b>Credit</b>
ITSC	1325	Personal Computer Hardware (CompTIA A+)	3
ITNW	1358	Network+	3
ITNW	1316	Network Administration	3
ITNW	1345	Implementing Network Directory Services	3
ITNW	1454	Implementing and Supporting Servers	4
ITSY	1342	Information Technology Security (CompTIA Security+)	3
<b>Total Hours</b>			<b>19</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful-employment/](http://ctcd.edu/academics/gainful-employment/)*

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## Software Development & Testing Specialist (CSV15) 110201 Certificate of Completion

*Only active duty military members who enroll as part of the MSSA cohort will be assigned (CSV15.CC1) degree plan/major code.*

			<b>Credit</b>
MATH	1342	Elementary Statistical Methods	3
ITSE	1329	Programming Logic and Design	3
ITSW	1307	Introduction to Database	3
ITSE	2459	Advanced Computer Programming (C#)	4
IMED	1316	Web Design I	3
<b>Total Hours</b>			<b>16</b>

## Network Server & Cloud Administrator (CSCA7) 111001 Certificate of Completion

*Only active duty military members who enroll as part of the MSSA cohort will be assigned (CSCA7.CC1) degree plan/major code.*

			<b>Credit</b>
ITNW	1316	Network Administration	3
ITNW	1345	Implementing Network Directory Services	3
ITNW	1454	Implementing and Supporting Servers	4
ITNW	2356	Designing a Network Directory Infrastructure	3
ITNW	1353	Supporting Network Server Infrastructure	3
ITNW	2354	Internet/Intranet Server	3
<b>Total Hours</b>			<b>19</b>

## Network Server & Cloud Administrator (CSC17) 111001 Certificate of Completion

*Students interested in Network Server & Cloud Administrator but are not part of the MSSA cohort, will be assigned (CSC17.CC1) degree plan/major code.*

<b>First Semester</b>			<b>Credit</b>
ITNW	1316	Network Administration	3
ITNW	1345	Implementing Network Directory Services	3
ITNW	1353	Supporting Network Server Infrastructure	3
<b>Second Semester</b>			
ITNW	1454	Implementing and Supporting Servers	4
ITNW	2356	Designing a Network Directory Infrastructure	3
ITNW	2354	Internet/Intranet Server	3
<b>Total Hours</b>			<b>19</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

## Telecommunications Technician (ELN17) 111001

### Certificate of Completion

First Semester			Credit
ITCC	1414	CCNA 1: Introduction to Networks	4
ITNW	1451	Fundamentals of Wireless LANs	4
Second Semester			
ITCC	1440	CCNA 2: Routing and Switching Essentials	4
ITCC	2412	CCNA 3: Scaling Networks	4
Third Semester			
ITCC	2413	CCNA 4: Connecting Networks	4
ITCC	2441	CCNA Security	4
ITCC	2459	Advanced Voice Over Internet Protocol (VOIP)	4
<b>Total Hours</b>			<b>28</b>

## Network Administrator (CSN15) 110201

### Occupational Skills Achievement Certificate

First Semester			Credit
COSC	1301	Introduction to Computing	3
ITSC	1325	Personal Computer Hardware	3
ITCC	1401	CISCO Exploration 1 - Network Fundamentals	4
ITCC	1404	CISCO Exploration 2 - Routing Protocols and Concepts	4
<b>Total Hours</b>			<b>14</b>

## IT Network Analyst (INA17) 111001

### Certificate of Completion

First Semester			Credit
ITNW	1358	Network+ (CompTIA)	3
ITNW	1316	Network Administration	3
ITNW	1345	Implementing Network Directory Services	3
Second Semester			
ITNW	1454	Implementing and Supporting Servers	4
ITSY	1342	Information Technology Security (CompTIA Security+)	3
<b>Total Hours</b>			<b>16</b>

*Not currently available for registration (State and/or Accreditation approval pending)*

## Electronics Engineering Technology (ELC17) 151201

### Associate of Applied Science Degree

First Year			Credit
First Semester			
ITSC	1301	Introduction to Computers	3
or			
COSC	1301	Introduction to Computing	
CETT	1325	Digital Fundamentals	3
CETT	1303	DC Circuits	3
MATH		MATH 1332, 1342 or higher level	3
Second Semester			
CETT	1305	AC Circuits	3
CPMT	1345	Computer Systems Maintenance	3
CETT	1429	Solid State Devices	4
CETT	1331	Programming for Discrete Electronic Devices	3
ENGL	1301	Composition I	3
Second Year			
First Semester			
CETT	1321	Electronics Fabrication	3
ELEC		Approved Elective*	4
CETT	2335	Advanced Microprocessors	3
CETT	1441	Solid State Circuits	4
ELEC		Social/Behavioral Science Selection	3

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*



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**Second Semester**

ITCC	1414	CCNA I: Introduction to Networks	4
CETT	1449	Digital Systems	4
ELMT	2435	Certified Electronics Tech. Training	4
ELEC		Humanities/Fine Arts Selection	3

**Total Hours** **60**

*\*Any 4 hour course in the Core Component Option 090*

**Computer Maintenance Technician (ELC17) 151201**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
ITSC	1301	Introduction to Computers	3
or			
COSC	1301	Introduction to Computing	
CETT	1325	Digital Fundamentals	3
CETT	1303	DC Circuits	3
ITCC	1414	CCNA 1: Introduction to Networks	4

**Second Semester**

CETT	1305	AC Circuits	3
CPMT	1345	Computer Systems Maintenance	3
CETT	1429	Solid State Devices	4

**Total Hours** **23**

**Electronics Instrument Technician (EIT17) 151201**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
ITSC	1301	Introduction to Computers	3
or			
COSC	1301	Introduction to Computing	
CETT	1325	Digital Fundamentals	3
CETT	1303	DC Circuits	3
CETT	1321	Electronics Fabrication	3

**Second Semester**

CETT	1305	AC Circuits	3
CPMT	1345	Computer Systems Maintenance	3
CETT	1449	Digital Systems	4
CETT	1429	Solid State Devices	4

**Total Hours** **26**

*Not currently available for registration (State and/or Accreditation approval pending)*

**Entry Level Electronics Technician (EET17) 151201**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
CETT	1325	Digital Fundamentals	3
CETT	1303	DC Circuits	3
CETT	1321	Electronics Fabrication	3

**Second Semester**

CETT	1305	AC Circuits	3
CETT	1429	Solid State Devices	4

**Total Hours** **16**

*Not currently available for registration (State and/or Accreditation approval pending)*

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Diesel

*This program is designed for students who wish to pursue a career in the Diesel Repair field. Students are taught using a “systems” approach (engines, power trains, hydraulics, etc.) which allows them to enter any one of the many separate fields of Diesel Repair (trucks/transportation construction equipment, agriculture, etc.). The program provides entry-level, industry-validated, hands-on instruction in Diesel Service and Repair using the latest technologies in Diesel systems, tools, and equipment.*

*The certificates of completion within this program may be completed through the Vocational Skills Center. The Vocational Skills Center offers students instruction through a self-paced, open-entry delivery format. This instructional clock hour format provides flexibility to accommodate the special needs of the student.*

## **Diesel Engine Technician and Maintainer (DEM15) 470605** **Associate of Applied Science Degree**

<b>First Semester</b>			<b>Credit</b>
DEMR	1401	Shop Safety and Procedures	4
DEMR	1306	Diesel Engine I	3
DEMR	1423	Heating, Ventilation, and Air Conditioning, Troubleshooting and Repair	4
ENGL	1301	Composition I	3
<b>Second Semester</b>			
DEMR	1321	Power Train I	3
DEMR	1405	Basic Electrical Systems	4
DEMR	1417	Basic Brake Systems	4
MATH	1332	Contemporary Mathematics	3
SPCH		SPCH 1315 or 1321	3
<b>Third Semester</b>			
DEMR	1416	Basic Hydraulics	4
DEMR	1410	Diesel Engine Testing and Repair I	4
DEMR	2412	Diesel Engine Testing and Repair II	4
ELEC		Humanities/Fine Arts Selection	3
<b>Fourth Semester</b>			
GOVT	2305	Federal Government	3
DEMR	1330	Steering and Suspension I	3
DEMR	2434	Advanced Diesel Tune-Up and Troubleshooting	4
DEMR	1449	Diesel Engine II	
or			
DEMR	2488	Internship	4
<b>Total Hours</b>			<b>60</b>

## **Diesel Technician (DET15) 470605** **Certificate of Completion**

			<b>Cr/Clock</b>
DEMR	1401	Shop Safety and Procedures	4/96
DEMR	1306	Diesel Engine I	3/96
DEMR	1405	Basic Electrical Systems	4/144
DEMR	1410	Diesel Engine Testing and Repair I	4/128
DEMR	2434	Advanced Diesel Tune-Up and Troubleshooting	4/144
DEMR	2412	Diesel Engine Testing and Repair II	4/144
DEMR	1416	Basic Hydraulics	4/144
DEMR	1321	Power Train I	3/144
DEMR	1447	Power Train II	4/96
DEMR	1417	Basic Brake Systems	4/128
DEMR	1330	Steering and Suspension I	3/96
DEMR	1423	Heating, Ventilation, and Air Conditioning, Troubleshooting and Repair	4/128
DEMR	1449	Diesel Engine II	4/144
or			
DEMR	2488	Internship	4/304
<b>Total Hours</b>			<b>49</b>
<b>Total Clock Hours</b>			<b>1632/1792</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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## Diesel System Specialist (DES15) 470605

### Certificate of Completion

*(Requires DESP7 Completion or Department approval)*

			<b>Cr/Clock</b>
DEMR	1416	Basic Hydraulics	4/144
DEMR	1321	Power Train I	3/144
DEMR	1447	Power Train II	4/96
DEMR	1417	Basic Brake Systems	4/128
DEMR	1330	Steering and Suspension I	3/96
WLDG	2413	Intermediate Welding Using Multiple Processes	4/144
<b>Total Hours</b>			<b>22</b>
<b>Total Clock Hours</b>			<b>432</b>

## Basic Diesel Technician (DESP7) 470605

### Certificate of Completion

			<b>Cr/Clock</b>
DEMR	1401	Shop Safety and Procedures	4/96
DEMR	1306	Diesel Engine I	3/96
DEMR	1405	Basic Electrical Systems	4/144
DEMR	1410	Diesel Engine Testing and Repair I	4/128
DEMR	2434	Advanced Diesel Tune-Up and Troubleshooting	4/144
<b>Total Hours</b>			<b>19</b>
<b>Total Clock Hours</b>			<b>608</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Drafting and Design

The Computer-Aided Drafting & Design Department (CADD) at Central Texas College provides a flexible, competency-based program of study. The program is based on the competencies which are common to all drafting and design technicians. Emphasis is on developing the student's critical thinking process, world of work skills, as well as drafting procedures and techniques.

## Computer-Aided Drafting and Design (DFT15) 151301 Associate of Applied Science Degree

### First Year

First Semester			Credit
DFTG	1405	Technical Drafting	4
DFTG	2412	Technical Illustration and Presentation	4
DFTG	1409	Basic Computer-Aided Drafting	4
MATH	1332	Contemporary Mathematics (Quantitative Reasoning)	3

### Second Semester

DFTG	2317	Descriptive Geometry	3
DFTG	2402	Machine Drafting	4
DFTG	2440	Solid Modeling/Design	4
ENGL	1301	Composition I	3
SPCH		SPCH 1315 or 1321	3

### Second Year

#### First Semester

DFTG	1417	Architectural Drafting-Residential	4
DFTG	1358	Electrical/Electronics Drafting	3
ARCE	1452	Structural Drafting	4
ELEC		Humanities/Fine Arts Selection	3

#### Second Semester

DFTG	2323	Pipe Drafting	3
DFTG	2421	Topographical Drafting	4
DFTG	2438	Final Project - Advanced Drafting	4
ELEC		Social/Behavioral Science Selection	3
<b>Total Hours</b>			<b>60</b>

## Computer-Aided Drafting and Design (DFT15) 151301 Certificate of Completion

			Credit
DFTG	1405	Technical Drafting	4
DFTG	2412	Technical Illustration and Presentation	4
DFTG	1409	Basic Computer-Aided Drafting	4
MATH	1332	Contemporary Mathematics (Quantitative Reasoning)	3
DFTG	2317	Descriptive Geometry	3
DFTG	2402	Machine Drafting*	4
DFTG	2440	Solid Modeling/Design	4
<b>Total Hours</b>			<b>26</b>

\* The following courses may be substituted: DFTG 1417, DFTG 2421 or ARCE 1452

## Computer-Aided Drafting and Design (DFT15) 151301 Occupational Skills Achievement Certificate

			Credit
DFTG	1405	Technical Drafting	4
DFTG	1409	Basic CAD	4
DFTG	2440	Solid Modeling	4
<b>Total Hours</b>			<b>12</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

# Emergency Medical Technology

The Emergency Medical Technology program is offered train applicants at the Emergency Medical Technician (EMT), Advanced EMT and Paramedic (Certificate or Associate of Applied Science) levels. Upon successful completion, students are eligible to take the National Registry exam to become certified at the specified level, through the National Registry of EMTs (NREMT) and the Texas Department of State Health Services. An Associate of Applied Science-Paramedic degree permits the student to apply for State Licensure through the Texas Department of State Health Services. Central Texas College offers the certificate of completion and an Associate Degree in Applied Science-Paramedic.

## Emergency Medical Technology (EMT15) 510904 Associate of Applied Science Degree

### First Year

First Semester			Credit
EMSP	1401	Emergency Medical Technician - Basic	4
EMSP	1160	Clinical-EMT	1
BIOL	2401	Anatomy and Physiology I	4
PSYC	2314	Life Span Growth and Development	3

### Second Semester

EMSP	1338	Introduction to Advanced Practice	3
EMSP	1355	Trauma Management	3
EMSP	1356	Patient Assessment and Airway Management	3
BIOL	2402	Anatomy and Physiology II	4

### Third Semester

EMSP	2206	Emergency Pharmacology	2
EMSP	2444	Cardiology	4
EMSP	2434	Medical Emergencies	4
EMSP	2262	Clinical- Paramedic	2

### Second Year

#### First Semester

BIOL	2420*	Microbiology for Non-science Majors	4
EMSP	2330	Special Populations	3
EMSP	2143	Assessment Based Management	1
EMSP	2263	Clinical – Paramedic	2
EMSP	2305	EMS Operations	3

#### Second Semester

PSYC	2301	General Psychology	3
ENGL	1301	Composition I	3
EMSP	2164	Practicum/Field Experience	1
ELEC		Humanities/Fine Arts Selection	3

**Total Hours** **60**

\* Biology 2421 may be accepted in lieu of BIOL 2420.

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## **EMT - Paramedic (EMP15) 510904**

### **Certificate of Completion**

*Upon successful completion of EMSP 1401 and EMSP 1160, students are eligible to sit for the National Registry Emergency Medical Technician (EMT) exam.*

*Upon successful completion of EMSP 1355, EMSP 1356, EMSP 1338, EMSP 2206 and EMSP 2262 students are eligible to sit for the National Registry Advanced EMT exam.*

*Upon successful completion of the certificate and/or the Associate of Applied Science degree curriculum, students are eligible to sit for the National Registry Paramedic exam.*

			<b>Credit</b>
EMSP	1401	Emergency Medical Technician -Basic	4
EMSP	1160	Clinical-EMT	1
EMSP	1338	Introduction to Advanced Practice	3
EMSP	1355	Trauma Management	3
EMSP	1356	Patient Assessment and Airway Management	3
EMSP	2206	Emergency Pharmacology	2
EMSP	2444	Cardiology	4
EMSP	2434	Medical Emergencies	4
EMSP	2262	Clinical – Paramedic	2
EMSP	2330	Special Populations	3
EMSP	2143	Assessment Based Management	1
EMSP	2263	Clinical – Paramedic	2
EMSP	2305	EMS Operations	3
EMSP	2164	Practicum/Field Experience	1
<b>Total Hours</b>			<b>36</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

# Engineering

The Associate of Science degree in Engineering is designed for the student wishing to pursue a Baccalaureate degree. The Central Texas College curriculum is designed to maximize the transfer of lower level course work to the Baccalaureate degree granting public education institution within the State of Texas.

## Engineering (ENGF4) 140101 Associate of Science Degree

### First Year

#### First Semester

			Credit
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ		SPCH 1315, 1318, or 1321	3
CORE REQ		Creative Arts Selection	3
CORE REQ	MATH 2413	Calculus I	4

#### Second Semester

CORE REQ	HIST 1302	United States History II	3
CORE ELEC	CHEM 1411	General Chemistry I	4
DEGR REQ	ENGR 1201	Introduction to Engineering	2
CORE REQ	GOVT 2305	Federal Government	3

#### Third Semester

DEGR REQ	MATH 2414	Calculus II	4
CORE REQ		Component Area Option	3

### Second Year

#### First Semester

CORE ELEC	PHYS 2426	University Physics II	4
DEGR REQ	ENGR 2301	Engineering Mechanics I – Statics	3
DEGR REQ	ENGR 2305	Electrical Circuits I	3

#### Second Semester

CORE REQ	GOVT 2306	Texas Government	3
DEGR REQ	ENGR 2332	Mechanics of Materials	3
CORE REQ		Language/Philosophy/Culture Studies	3
DEGR REQ	ENGR 2302	Engineering Mechanics II – Dynamics	3
CORE REQ		Social/Behavioral Science Selection	3

#### Total Hours

**60**

#### Notes:

In cases where freshman and/or sophomore degree requirements of the receiving college for a bachelor's degree differ from those listed above, changes can be made in the Associate in Art/Science degree requirements when approved by the appropriate department chair.

\*Students not prepared to take MATH 2413, Calculus I may be required to take MATH 2412, Pre-Calculus.

\*\*Students not prepared to take PHYS 2426, University Physics II may be required to take PHYS 2425, University Physics I.

Students are encouraged to complete the three course calculus series (MATH 2413, MATH 2414, and MATH 2415) with Central Texas College prior to transferring to a four year institution.

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# Fine Arts

The Fine Arts department at Central Texas College houses three distinct programs; Art, Drama and Music. An Associate of Arts Degree selected from one of the specializations in Art, Drama or Music is designed to transfer course hours to a 4 year university for a Baccalaureate degree. Individual courses within each curriculum also provide elective and individual enrichment opportunities. Students will complete courses toward the Texas "common core", and then choose eighteen hours of courses in their chosen specialization.

## Art (ART4) 500702

Art majors will discover instruction in two-dimensional and three-dimensional studio courses, design, drawing, life drawing, painting, photography both traditional darkroom and digital processes, design communications with a focus on Adobe Photoshop and Illustrator programs, ceramics and art metals/jewelry. The following are the course listings related to the associate of arts degree:

### Associate of Arts Degree

Complete Core	42
Art Specialization	18
<b>Total Hours</b>	<b>60</b>

#### Core

REQ	ENGL	1301	Composition I	3
REQ	HIST	1301	United States History I	3
REQ			Creative Arts Selection	3
REQ	GOVT	2306	Texas Government	3
REQ			Language/Philosophy/Culture Studies	3
REQ			SPCH 1315, 1318 or 1321	3
REQ	HIST	1302	United States History II	3
REQ			Component Area Option	4
REQ			Life and Physical Science Selection	4
REQ			Social/Behavioral Science Selection	3
REQ	GOVT	2305	Federal Government	3
REQ			MATH 1332, 1342 or 1314	3
REQ			Life and Physical Science Selection	4

#### Art Specialization Selection

Based on advisement choose eighteen credit hours from the following list: ARTS 1303, 1304, 1311, 1312, 1316, 1317, 2311, 2313, 2314, 2316, 2317, 2323, 2341, 2346, 2347, 2356, 2357, 2366, 2389 or HUMA 1315.

## Commercial Art (CART4) 500402

The focus in commercial art accommodates the student with a specific visual art lean in drawing, photography or design. The following are the course listings related to the associate of arts degree with a commercial art specialization:

### Associate of Arts Degree

Complete Core	42
Music Specialization	18
<b>Total Hours</b>	<b>60</b>

#### Core

REQ	ENGL	1301	Composition I	3
REQ	HIST	1301	United States History I	3
REQ			Creative Arts Selection	3
REQ	GOVT	2306	Texas Government	3
REQ			Language/Philosophy/Culture Studies	3
REQ			SPCH 1315, 1318 or 1321	3
REQ	HIST	1302	United States History II	3
REQ			Component Area Option	4
REQ			Life and Physical Science Selection	4
REQ			Social/Behavioral Science Selection	3
REQ	GOVT	2305	Federal Government	3
REQ			MATH 1332, 1342 or 1314	3
REQ			Life and Physical Science Selection	4

#### Commercial Art Specialization Selection

Based on advisement choose eighteen credit hours from the following list: ARTS 1303, 1304, 1311, 1312, 1316, 1317, 2323, 2313, 2314, 2341, 2346, 2347, 2356, 2357, 2389 or HUMA 1315



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## Drama (DRM15) 500501

*Drama majors will investigate and develop an understanding of basic production elements through coursework focused on two distinct areas; performance and technical production including but not limited to acting, stagecraft, specialized practicum and film studies. The following are the course listings related to the associate of arts degree with a drama specialization:*

### Associate of Arts Degree

Complete Core	42
Drama Specialization	18
<b>Total Hours</b>	<b>60</b>

#### Core

REQ	ENGL	1301	Composition I	3
REQ	HIST	1301	United States History I	3
REQ			Creative Arts Selection	3
REQ	GOVT	2306	Texas Government	3
REQ			Language/Philosophy/Culture Studies	3
REQ			SPCH 1315, 1318 or 1321	3
REQ	HIST	1302	United States History II	3
REQ			Component Area Option	4
REQ			Life and Physical Science Selection	4
REQ			Social/Behavioral Science Selection	3
REQ	GOVT	2305	Federal Government	3
REQ			MATH 1332, 1342 or 1314	3
REQ			Life and Physical Science Selection	4

#### Drama Specialization Selection

Based on advisement choose eighteen credit hours from the following list: DRAM 1310, 1330, 1342, 1351, 2366, 1352, 2336, 2389.

## Music (MUS15) 500901

*The music program is designed for the student who wishes to enter the field(s) of music education, performance, and/or technology. The following are the course listings related to the associate of art degree with a music specialization:*

### Associate of Arts Degree

Complete Core	42
Music Specialization	18
<b>Total Hours</b>	<b>60</b>

#### Core

REQ	ENGL	1301	Composition I	3
REQ	HIST	1301	United States History I	3
REQ			Creative Arts Selection	3
REQ	GOVT	2306	Texas Government	3
REQ			Language/Philosophy/Culture Studies	3
REQ			SPCH 1315, 1318 or 1321	3
REQ	HIST	1302	United States History II	3
REQ			Component Area Option	4
REQ			Life and Physical Science Selection	4
REQ			Social/Behavioral Science Selection	3
REQ	GOVT	2305	Federal Government	3
REQ			MATH 1332, 1342 or 1314	3
REQ			Life and Physical Science Selection	4

#### Music Specialization Selection

\*MUAP I, MUAP II, MUAP III, MUAP IV in area appropriate to student (Voice, Piano, Strings (including guitar), Brass, Percussion, or Woodwinds),

\*\*MUEN 1132 Chamber (Small) Instrumental Ensemble,

\*\*MUEN 1142 Large Vocal Ensemble,

\*\*MUEN 1152 Chamber (Small) Vocal Ensemble,

<sup>∞</sup>MUSI 1116 Sight Singing and Ear Training I, <sup>∞∞</sup>MUSI 1117 Sight Singing and Ear Training II, MUSI 1181 Piano Class I, MUSI 1183 Voice Class I, MUSI 1188 Percussion Class I, MUSI 1192 Guitar Class I, MUSI 1307 Music Literature, <sup>∞</sup>MUSI 1311 Music Theory I, <sup>∞∞</sup>MUSI 1312 Music Theory II, MUSI 2311 Music Theory III, MUSI 2312 Music Theory IV, MUSI 1303 Fundamentals of Music I.

#### Notes

\*MUAP (Individualized Instruction) and MUEN (Ensemble) must be taken each semester while attending CTC.

\*\*MUEN 1132, MUEN 1142 and MUEN 1152 are residency requirements but do not transfer as credit toward the Bachelor of Music degree

<sup>∞</sup>MUSI 1116 and MUSI 1311 should be taken concurrently

<sup>∞∞</sup>MUSI 1117 and MUSI 1312 should be taken concurrently

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# General Studies

*The two-year General Studies program offers a wide selection of courses to fulfill degree requirements for students who have special education needs that are not satisfied by other degree programs; who want to experiment in diverse areas; who want to expand their base of knowledge or enhance their personal development; who are looking for particular skills; or who are employed and feel a need to expand overall skills to better meet new employment needs.*

## General Studies (GST4) 240102 Associate of Arts Degree

This is a suggested curriculum.

Students must have a minimum of 15 semester credit hours within the Central Texas College System.

### First Year

First Semester			Credit
ENGL	1301	Composition I	3
HIST	1301	United States History I	3
KINE		Physical Activity Course	1
ELEC		Electives*	9

### Second Semester

SPCH		SPCH1315, 1318 or 1321	3
HIST	1302	United States History II	3
ELEC		MATH/Natural Science Selection	3
ELEC		Electives*	4

### Second Year

#### First Semester

GOVT	2305	Federal Government	3
ELEC		Electives*	12

#### Second Semester

GOVT	2306	Texas Government	3
ELEC		Humanities/Fine Arts Selection	3
ELEC		Electives*	10

<b>Total Hours</b>			<b>60</b>
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Students who plan to transfer to other institutions for degree completion or to pursue a more advanced degree are advised to consult with officials of receiving school for degree requirements and transfer policy.

\* Students may select 35 semester credit hours from courses that fulfill the student's educational goals.

# Graphics and Printing Technology

*This program is for students who wish to prepare themselves to enter the Printing career field (Graphic Arts/Printing). The program provides entry-level, industry-validated, "hands-on" instruction that will prepare the student to enter and be successful in the Printing industry job market. Studies include: shop skills, layout, design, composition, desktop publishing (IBM compatible and Macintosh), press operation, bindery and preventive maintenance.*

*The certificates of completion within this program may be completed through the Vocational Skills Center. The Vocational Skills Center offers students instruction in a self-paced, open-entry delivery format. This instructional clock hour format provides flexibility to accommodate the special needs of the student.*

## Graphics and Printing (GP15) 100305 Associate of Applied Science Degree

### First Year

First Semester			Credit
GRPH	1305	Intro to Graphic Arts & Printing	3
ARTC	1313	Digital Publishing I	3
ARTC	2313	Digital Publishing II	3
ENGL	1301	Composition I	3
ELEC		Humanities/Fine Arts Selection	3

### Second Semester

ARTC	2348	Digital Publishing III	3
ARTC	1327	Typography	3
MATH	1332	Contemporary Mathematics	3
GOVT		GOVT 2305 or 2306	3

### Second Year

First Semester			
ARTC	1302	Digital Imaging I	3
ARTC	2305	Digital Imaging II	3
SPCH		SPCH 1315 or 1321	3
GRPH	2309	Digital Prepress	3
ARTC	2333	Publication Design	3

### Second Semester

GRPH	1459	Vector Graphics for Production	4
GRPH	1419	Bindery & Finishing Operations	4
GRPH	1309	Press Operations I	3
GRPH	2338	Press Operations II	3
GRPH	2488	Internship Graphics & Printing Equipment Operator	4
or			
ARTC	2488	Internship Commercial and Advertising Art	
<b>Total Hours</b>			<b>60</b>

## Graphics and Printing Technology (GP15) 100301 Certificate of Completion – Level 2

			Cr/Clock
GRPH	1305	Intro to Graphic Arts & Printing	3/96
ARTC	1313	Digital Publishing I	3/96
ARTC	2313	Digital Publishing II	3/96
ARTC	2348	Digital Publishing III	3/96
GRPH	2309	Digital Prepress	3/96
ARTC	1327	Typography	3/96
ARTC	1302	Digital Imaging I	3/96
ARTC	2305	Digital Imaging II	3/96
GRPH	1459	Vector Graphics for Production	4/96
ARTC	2333	Publication Design	3/96
GRPH	1419	Bindery & Finishing Operations	4/96
GRPH	1309	Press Operations I	3/96
GRPH	2338	Press Operations II	3/96
ARTC	2435	Portfolio Development for Graphic Design	4/96
GRPH	2488	Internship Graphics & Printing Equipment Operator	4/304
or			
ARTC	2488	Internship Commercial and Advertising Art	
<b>Total Hours</b>			<b>49</b>
<b>Total Clock Hours</b>			<b>1648</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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**Graphics and Printing Technology Press Operations (GPP15) 100305**  
**Certificate of Completion**

			<b>Cr/Clock</b>
GRPH	1305	Intro to Graphic Arts & Printing	3/96
GRPH	2309	Digital Prepress	3/96
GRPH	1419	Bindery & Finishing Operations	4/96
GRPH	1474	Preventive Maintenance	4/96
GRPH	1309	Press Operations I	3/96
GRPH	2338	Press Operations II	3/96
GRPH	1374	Press Operations III	3/96
<b>Total Hours</b>			<b>23</b>
<b>Total Clock Hours</b>			<b>672</b>

**Graphics and Printing Technology Graphic Design (GPGF5) 100301**  
**Certificate of Completion**

			<b>Cr/Clock</b>
GRPH	1305	Intro to Graphic Arts & Printing	3/96
ARTC	1313	Digital Publishing I	3/96
ARTC	2313	Digital Publishing II	3/96
ARTC	2348	Digital Publishing III	3/96
GRPH	2309	Digital Prepress	3/96
ARTC	2333	Publication Design	3/96
<b>Total Hours</b>			<b>18</b>
<b>Total Clock Hours</b>			<b>576</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

# Heating and Air Conditioning

*This program is designed for students desiring to prepare themselves for a career in residential and commercial air conditioning and refrigeration. The program provides entry-level, industry-validated "hands-on" instruction using current technologies and equipment.*

*Studies include air conditioning and refrigeration principles and theory, electrical theory and application, gas and electrical heating, A/C central principles, residential and commercial air conditioning, system design, commercial refrigeration, heat pumps and troubleshooting.*

## Heating, Air Conditioning and Refrigeration Mechanic and Repairer (HART5) 470201 Associate of Applied Science Degree

### First Year

First Semester			Credit
HART	1407	Refrigeration Principles	4
HART	1401	Basic Electricity for HVAC	4
HART	1445	Gas and Electric Heating	4
MATH	1332	Contemporary Mathematics	3

### Second Semester

HART	1403	Air Conditioning Control Principles	4
HART	1341	Residential Air Conditioning	3
ENGL	1301	Composition I	3
GOVT	2305	Federal Government	3

### Second Year

#### First Semester

HART	2449	Heat Pumps	4
HART	2438	Air Conditioning Installation and Startup	4
HART	2341	Commercial Air Conditioning	3
HART	2342	Commercial Refrigeration	3
ELEC		Humanities/Fine Arts Selection	3

#### Second Semester

HART	2436	Air Conditioning Troubleshooting	4
HART	2431	Advanced Electricity for HVAC	4
SPCH		SPCH 1315 or 1321	3
HART	2445	Residential Air Conditioning System Design	
or			
HART	2488	Internship	4

**Total Hours 60**

## Heating, Air Conditioning and Refrigeration (HART5) 470201 Certificate of Completion

			Credit
HART	1407	Refrigeration Principles	4/96
HART	1401	Basic Electricity for HVAC	4/96
HART	1445	Gas and Electric Heating	4/96
HART	1403	Air Conditioning Control Principles	4/96
HART	1341	Residential Air Conditioning	3/96
HART	2438	Air Conditioning Installation and Startup	4/96
HART	2449	Heat Pumps	4/96
HART	2341	Commercial Air Conditioning	3/96
HART	2342	Commercial Refrigeration	3/96
HART	2436	Air Conditioning Troubleshooting	4/96
HART	2431	Advanced Electricity for HVAC	4/96
HART	2445	Residential Air Conditioning System Design	
or			
HART	2488	Internship	4/96
<b>Total Hours</b>			<b>45</b>
<b>Total Clock Hours</b>			<b>1056</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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**Air Conditioning and Refrigeration Technicians Assistant (ACR17) 470201**  
**Certificate of Completion**

			<b>Credit</b>
HART	1407	Refrigeration Principles	4/96
HART	1401	Basic Electricity for HVAC	4/96
HART	1445	Gas and Electric Heating	4/96
HART	1341	Residential Air Conditioning	3/96
HART	1403	Air Conditioning Control Principles	4/96
<b>Total Hours</b>			<b>19</b>
<b>Total Clock Hours</b>			<b>480</b>

**Residential Heating, Air Conditioning and Refrigeration (HAC17) 470201**  
**Certificate of Completion**

*(This certificate requires completion of Technicians Assistant Certificate)*

			<b>Credit</b>
HART	2449	Heat Pumps	4/96
HART	2438	Air Conditioning Installation and Startup	4/96
HART	2431	Advanced Electricity for HVAC	4/96
HART	2436	Air Conditioning Troubleshooting	4/96
HART	2445	Residential Air Conditioning System Design	4/96
<b>Total Hours</b>			<b>20</b>
<b>Total Clock Hours</b>			<b>480</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Histological Technician

## Histologic Technician (HLAB) 51.1008 Associate of Applied Science Degree

### First Year

#### First Semester

			Credit
HLAB	1401	Introduction to Histotechnology	4
MATH	1314	College Algebra	3
BIOL	2401	Anatomy & Physiology I	4
ELCT		Humanities/Fine Arts	3

#### Second Semester

HLAB	1302	Histotechnology I	3
BIOL	2402	Anatomy & Physiology II	4
HLAB	1305	Functional Histology I	3
CHEM	1411	General Chemistry I	4

#### Third Semester

HLAB	1443	Histotechnology II	4
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### Second Year

#### First Semester

HLAB	2434	Histotechnology III	4
HLAB	1446	Functional Histology II	4
HLAB	1391	Special Topics Histotechnology	3
HLAB	1460	Clinical - Histologic Technology/Histotechnologist I	4

#### Second Semester

HLAB	2460	Clinical - Histologic Technology/Histotechnologist II	4
ENGL	1301	Composition I	3
HLAB	2341	Registry Review	3
ELCT		PSYC 2301 or SOCI 1301	3

#### Total Hours

**60**

\* MATH 1314 is Prerequisite for CHEM 1411

Pending approval from SACSCOC

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# Hospitality Management

The Central Texas College Hospitality Management program offers an Associate in Applied Science degree in three areas of specialization: Restaurant and Culinary Management, Food and Beverage Management and Hotel Management.

Students at CTC have an opportunity to complete their Associate of Applied Science Degree using a “stepping stone” approach. Students may begin by completing one or several of the certificates of completion available. The semester credit hours earned through these certificates can be applied to the requirements of Associates of Applied Science degree. These certificates will enable the student to put their education to work for them in a shorter period of time and still pursue the Associate of Applied Science Degree. These certificates include Property Management, Baking, Institutional Food Service Operations, Culinary Arts, Rooms Divisions, Food and Beverage Management, Restaurant Skills and Restaurant Operations.

## Restaurant and Culinary Management (RCM15) 520901 Associate of Applied Science Degree

### First Year

#### First Semester

			Credit
CHEF	1305	Sanitation and Safety	3
HAMG	1321	Intro to the Hospitality Industry	3
CHEF	1301	Basic Food Preparation	3
ELEC		Humanities/Fine Arts Selection	3
HAMG	2307	Hospitality Marketing and Sales	3
RSTO	1321	Menu Management	3

#### Second Semester

GOVT	2305	Federal Government	3
SPCH		SPCH 1315 or SPCH 1321	3
ELEC		CHEF/PSTR	3
HAMG	2301	Principles of Food and Beverage Operations	3

### Second Year

#### First Semester

HAMG	2332	Hospitality Financial Management	3
ENGL	1301	Composition I	3
PSTR	1301	Fundamentals of Baking	3
ELEC		HAMG/IFWA/RSTO/TRVM	3

#### Second Semester

RSTO	1325	Purchasing for Hospitality Operations	3
MATH		MATH 1332 or MATH 1342	3
HAMG	1340	Hospitality Legal Issues	3
RSTO	1313	Hospitality Supervision	3
ELEC		Academic Elective	3
HAMG	2388	Internship	3
or			
HAMG	2373	Final Project	

**Total Hours** 60

## Hotel Management Specialization (HMH15) 520901 Associate of Applied Science Degree

### First Year

#### First Semester

			Credit
CHEF	1305	Sanitation and Safety	3
HAMG	1321	Intro to the Hospitality Industry	3
ELEC		Humanities/Fine Arts Selection	3
ELEC		Academic Elective	3

#### Second Semester

GOVT	2305	Federal Government	3
SPCH		SPCH 1315 or SPCH 1321	3
HAMG	2332	Hospitality Financial Management	3
RSTO	1313	Hospitality Supervision	3
HAMG	1313	Front Office Procedures	3
HAMG	2301	Principles of Food and Beverage Operations	3



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**Second Year****First Semester**

RSTO	1325	Purchasing for Hospitality Operations	3
RSTO	1204	Dining Room Service	2
HAMG	1342	Guest Room Management	3
MATH		MATH 1332 or MATH 1342	3
HAMG	1340	Hospitality Legal Issues	3
KINE		Physical Activity Course	1

**Second Semester**

HAMG	2337	Hospitality Facilities Management	3
ENGL	1301	Composition I	3
HAMG	2307	Hospitality Marketing and Sales	3
ELEC		HAMG/IFWA/RSTO/TRVM	3
HAMG	2388	Internship	3
or			
HAMG	2373	Final Project - Hospitality Management and Administration	60
<b>Total Hours</b>			<b>60</b>

**Culinary Arts (HMC15) 520905**  
**Associate of Applied Science Degree****First Year****First Semester**

			<b>Credit</b>
CHEF	1305	Sanitation and Safety	3
HAMG	1321	Intro to the Hospitality Industry	3
CHEF	1301	Basic Food Preparation	3
ELEC		Humanities/Fine Arts Selection	3
RSTO	1321	Menu Management	3

**Second Semester**

CHEF	1310	Garde Manger	3
GOVT	2305	Federal Government	3
SPCH		SPCH 1315 or SPCH 1321	3
CHEF	2301	Intermediate Food Preparation	3
CHEF	1302	Principles of Healthy Cuisine	3
CHEF	2302	Saucier	3

**Second Year****First Semester**

ENGL	1301	Composition I	3
PSTR	1301	Fundamentals of Baking	3
CHEF	1341	American Regional Cuisine	3
CHEF	1345	International Cuisine	3

**Second Semester**

RSTO	1325	Purchasing for Hospitality Operations	3
MATH		MATH 1332 or MATH 1342	3
RSTO	1313	Hospitality Supervision	3
ELEC		Academic Elective	3
HAMG	2388	Internship	3
or			
HAMG	2373	Final Project	60
<b>Total Hours</b>			<b>60</b>

**Culinary Arts (HMC15) 520905**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
CHEF	1305	Sanitation and Safety	3
RSTO	1313	Hospitality Supervision	3
HAMG	1321	Intro to the Hospitality Industry	3
CHEF	1301	Basic Food Preparation	3
<b>Second Semester</b>			
CHEF	1310	Garde Manger	3
ELEC		CHEF	3
RSTO	1325	Purchasing for Hospitality Operations	3
<b>Third Semester</b>			
ELEC		CHEF	3
PSTR	1301	Fundamentals of Baking	3
HAMG	2388	Internship	3
or			
HAMG	2373	Final Project	
<b>Total Hours</b>			<b>30</b>

**Restaurant Skills (HMR13) 520905**  
**Certificate of Completion**

			<b>Credit</b>
CHEF	1305	Sanitation and Safety	3
IFWA	1318	Nutrition for the Food Service Professional	3
CHEF	1301	Basic Food Preparation	3
HAMG	2301	Principles of Food and Beverage Operations	3
RSTO	1321	Menu Management	3
ELEC		CHEF/PSTR	3
PSTR	1301	Fundamentals of Baking	3
<b>Total Hours</b>			<b>21</b>

**Baking and Pastry Specialization (HMBP) 520901**  
**Associate of Applied Science Degree**

<b>First Year</b>			<b>Credit</b>
<b>First Semester</b>			
CHEF	1305	Sanitation and Safety	3
HAMG	1321	Intro to the Hospitality Industry	3
PSTR	1301	Fundamentals of Baking	3
ELEC		Humanities/Fine Arts Selection	3
CHEF	1301	Basic Food Preparation	3
<b>Second Semester</b>			
PSTR	1302	Cake Baking and Production	3
GOVT	2305	Federal Government	3
SPCH		SPCH 1315 or SPCH 1321	3
PSTR	1306	Cake Decorating I	3
PSTR	1305	Bread and Rolls	3
<b>Second Year</b>			
<b>First Semester</b>			
PSTR	2331	Advanced Pastry Shop	3
PSTR	2307	Cake Decorating II	3
ENGL	1301	Composition I	3
RSTO	1325	Purchasing for Hospitality Operations	3
RSTO	1321	Menu Management	3
<b>Second Semester</b>			
PSTR	2350	Wedding Cakes	3
MATH		MATH 1332 or MATH 1342	3
RSTO	1313	Hospitality Supervision	3
ELEC		Academic Elective	3
HAMG	2388	Internship	3
or			
HAMG	2373	Final Project	
<b>Total Hours</b>			<b>60</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

**Baking (HMBK9) 520905**  
**Certificate of Completion**

			<b>Credit</b>
CHEF	1305	Sanitation and Safety	3
PSTR	1301	Fundamentals of Baking	3
PSTR	1302	Cake Baking and Production	3
PSTR	1306	Cake Decorating	3
PSTR	2350	Wedding Cakes	3
PSTR	2307	Cake Decorating II	3
PSTR	2331	Advanced Pastry Shop	3
<b>Total Hours</b>			<b>21</b>

**Hospitality Property Management (HMP17) 520904**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
HAMG	1313	Front Office Procedures	3
HAMG	1340	Hospitality Legal Issues	3
HAMG	1321	Intro to the Hospitality Industry	3
HAMG	2337	Hospitality Facilities Management	3
HAMG	2372	Hospitality Industry Training	3
<b>Second Semester</b>			
HAMG	2332	Hospitality Financial Management	3
RSTO	1313	Hospitality Supervision	3
HAMG	2307	Hospitality Marketing and Sales	3
<b>Third Semester</b>			
HAMG	1342	Guest Room Management	3
HAMG	2388	Internship	3
or			
HAMG	2373	Final Project	
<b>Total Hours</b>			<b>30</b>

**Restaurant Operations (HRO13) 520905**  
**Certificate of Completion**

(Texas Department of Criminal Justice Only)

			<b>Credit</b>
CHEF	1305	Sanitation and Safety	3
CHEF	1301	Basic Food Preparation	3
HAMG	2301	Principles of Food and Beverage Operations	3
PSTR	1301	Fundamentals of Baking	3
RSTO	1321	Menu Management	3
HAMG	2307	Hospitality Marketing and Sales	3
HAMG	1340	Hospitality Legal Issues	3
HAMG	1321	Intro to the Hospitality Industry	3
IFWA	1318	Nutrition for the Food Service Professional	3
<b>Total Hours</b>			<b>27</b>

**Institutional Food Service Operations (HMI15) 520905**  
**Certificate of Completion**

*Upon successful completion of the Institutional Food Service Operations certificate, students are eligible to take the level 5 certification with the Texas School Food Association.*

<b>First Semester</b>			<b>Credit</b>
CHEF	1305	Sanitation and Safety	3
IFWA	1318	Nutrition for the Food Service Professional	3
RSTO	2405	Management of Production & Service	4
CHEF	1301	Basic Food Preparation	3
<b>Second Semester</b>			
HAMG	1321	Intro to the Hospitality Industry	3
ELEC		CHEF/PSTR	3
RSTO	1321	Menu Management	3

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful-employment/](http://ctcd.edu/academics/gainful-employment/)*

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<b>Third Semester</b>			
RSTO	1325	Purchasing for Hospitality Operations	3
HAMG	2301	Principles of Food and Beverage Operations	3
RSTO	1313	Hospitality Supervision	3
ELEC		CHEF/PSTR	3
<b>Total Hours</b>			<b>34</b>

### **Rooms Division (HRD13) 520904 Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
HAMG	1313	Front Office Procedures	3
HAMG	1321	Intro to the Hospitality Industry	3
HAMG	1342	Guest Room Management	3
HAMG	1340	Hospitality Legal Issues	3
<b>Second Semester</b>			
RSTO	1313	Hospitality Supervision	3
RSTO	1325	Purchasing for Hospitality Operations	3
HAMG	2332	Hospitality Financial Management	3
HAMG	2388	Internship	3
or			
HAMG	2373	Final Project	
<b>Total Hours</b>			<b>24</b>

### **Food and Beverage Management Specialization (HMF15) 520901 Associate of Applied Science Degree**

<b>First Year</b>			
<b>First Semester</b>			<b>Credit</b>
CHEF	1305	Sanitation and Safety	3
HAMG	1321	Intro to the Hospitality Industry	3
ELEC		Humanities/Fine Arts Selection	3
HAMG	2307	Hospitality Marketing and Sales	3
ELEC		HAMG/RSTO/TRVM	3
<b>Second Semester</b>			
GOVT	2305	Federal Government	3
SPCH		SPCH 1315 or 1321	3
RSTO	1204	Dining Room Service	2
HAMG	2301	Principles of Food and Beverage Operations	3
KINE		Physical Activity Course	1
<b>Second Year</b>			
<b>First Semester</b>			
HAMG	2332	Hospitality Financial Management	3
TRVM	2301	Introduction to Convention and Meeting Management	3
ENGL	1301	Composition I	3
RSTO	1301	Beverage Management	3
HAMG	2337	Hospitality Facilities Management	3
<b>Second Semester</b>			
RSTO	1325	Purchasing for Hospitality Operations	3
MATH		MATH 1332 or MATH 1342	3
HAMG	1340	Hospitality Legal Issues	3
RSTO	1313	Hospitality Supervision	3
ELEC		Academic Elective	3
HAMG	2388	Internship	3
or			
HAMG	2373	Final Project	
<b>Total Hours</b>			<b>60</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful-employment/](http://ctcd.edu/academics/gainful-employment/)*

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## Food and Beverage Management (HMF15) 520905

### Certificate of Completion

(Offered at locations outside of Texas under Military Contract Obligation)

<b>Lower Division Major Courses:</b>			<b>Credit</b>
CHEF	1305	Sanitation and Safety	3
HAMG	1340	Hospitality Legal Issues	3
HAMG	2301	Principles of Food and Beverage Operations	3
RSTO	1204	Dining Room Service	2
RSTO	1313	Hospitality Supervision	3
HAMG	1321	Intro to the Hospitality Industry	3
HAMG	2332	Hospitality Financial Management	3
<b>Hospitality</b>			
<b>Select three of the following courses:</b>			
HAMG	1313	Front Office Procedures	3
HAMG	2337	Hospitality Facilities Management	3
HAMG	2372	Hospitality Industry Training	3
HAMG	2307	Hospitality Marketing and Sales	3
TRVM	2301	Introduction to Convention and Meeting Management	3
<b>Total Hours</b>			<b>29</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Interdisciplinary Studies

*The Interdisciplinary Studies Associate of Arts degree offers a wide selection of courses to fulfill degree requirements for students who have special education desires that are not satisfied by other degree programs. Completion of the Core requirements will maximize transfer credit for those students who want to pursue a Baccalaureate degree. Students planning to attend a senior college should coordinate with that senior college to ensure that the courses taken at Central Texas College will fulfill the degree requirements there.*

## Interdisciplinary Studies (IDS4) 240101

### Associate of Arts Degree

#### First Year

##### First Semester

			Credit
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ		Creative Arts Selection	3
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Language/Philosophy/Culture Studies	3

##### Second Semester

CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	4
CORE REQ		Life and Physical Science Selection	4
CORE REQ		Social/Behavioral Science Selection	3

#### Second Year

##### First Semester

CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		MATH 1314, 1332 or 1342	3
CORE REQ		Life and Physical Science Selection	4
DEGR REQ		Electives*	18
<b>Total Hours</b>			<b>60</b>

\* Students may select 18 semester credit hours from TCCN courses that fulfill the student's educational goals.

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# Kinesiology

## Kinesiology (KIN4) 310505

### Associate of Science Degree

<b>First Semester</b>			<b>Credit</b>
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ	MATH 1314	College Algebra	3
CORE REQ		Component Area Option	4
DEGR REQ	KINE 1301	Intro. to Physical Fitness & Sport	3
DEGR REQ		KINE Physical Activity Course	1
<b>Second Semester</b>			
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Language, Philosophy & Culture	3
DEGR REQ	KINE 1306	First Aid	3
DEGR REQ		KINE Physical Activity Course	1
<b>Second Year</b>			
<b>First Semester</b>			
CORE REQ		Life and Physical Science (BIOL 2401 recommended)	4
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		Creative Arts Selection	3
DEGR REQ	KINE 1304	Personal/Comm. Health I	3
DEGR REQ		KINE Physical Activity Course	1
<b>Second Semester</b>			
CORE REQ		Life and Physical Science (BIOL 2402 recommended)	4
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Social/Behavioral Science Selection	3
DEGR REQ	KINE 1321	Coaching/Sports/Athletics I	3
DEGR REQ	KINE 1338	Concepts of Physical Fitness	3
<b>Total Hours</b>			<b>60</b>

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# Maintenance Technology

This program is for the student who wishes to enter a Building Trades (Construction or Maintenance) career field. The program provides entry-level, industry-validated, hands-on instruction that prepares the student to enter and be successful in the job market.

Studies in the Maintenance Technology AAS degree include basic shop skills; electrical wiring; plumbing; painting and refinishing (interior and exterior); carpentry to include roofing, flooring, walls, doors, and windows, cabinets; welding; estimating; blueprint reading; and air conditioning/heating.

The certificates of completion within this program may be completed through the Vocational Skills Center. The Vocational Skills Center offers students instruction through a self-paced, open-entry delivery format. This instructional clock hour format provides flexibility to accommodate the special needs of the student.

## Maintenance Technology (MTN15) 460401 Associate of Applied Science Degree

### First Year

First Semester			Credit
CRPT	1429	Introduction to Carpentry	4
HART	1407	Refrigeration Principles	
or			
WDWK	1413	Cabinet Making I	4
CRPT	1423	Floor Systems	4
MATH	1332	Contemporary Mathematics	3
KINE		Physical Activity Course	1
Second Semester			
ELPT	1411	Basic Electrical Theory	4
ENGL	1301	Composition I	3
CRPT	1415	Wall Systems	4
ELEC		Humanities/Fine Arts Selection	3

### Second Year

First Semester			
CRPT	1411	Roof Systems	4
PFPB	2409	Residential Construction Plumbing I	4
GOVT	2305	Federal Government	3
Second Semester			
CBFM	1334	Interior and Exterior Painting and Refinishing	3
HART	1401	Basic Electricity for HVAC	
or			
CNBT	1446	Construction Estimating I	4
MBST	1507	Masonry I	5
SPCH		SPCH 1315 or 1321	3
PFPB	2445	Residential Construction Plumbing II	
or			
CBFM	2487	Internship	4
<b>Total Hours</b>			<b>60</b>

## Building Trades (MTB15) 460401 Certificate of Completion

First Semester			Cr/Clock
CRPT	1429	Introduction to Carpentry	4/96
CRPT	1423	Floor Systems	4/96
CRPT	1411	Roof Systems	4/112
Second Semester			
CRPT	1415	Wall Systems	4/112
WDWK	1413	Cabinet Making I	4/112
WDWK	2351	Cabinet Making II	3/96
MBST	1507	Masonry I	5/144
ELPT	1411	Basic Electrical Theory	4/96

Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)



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**Third Semester**

ELPT	1429	Residential Wiring	4/96
PFPB	2409	Residential Construction Plumbing I	4/96
CNBT	1446	Construction Estimating I	4/96
PFPB	2445	Residential Construction Plumbing II	4/96
or			
CBFM	2487	Internship	4/304
<b>Total Hours</b>			<b>48</b>
<b>Total Clock Hours</b>			<b>1248/1456</b>

**Carpentry Trades (MTC15) 460401****Certificate of Completion**

<b>First Semester</b>			<b>Cr/Clock</b>
CRPT	1429	Introduction to Carpentry	4/96
CRPT	1423	Floor Systems	4/96
CRPT	1415	Wall Systems	4/112
CRPT	1411	Roof Systems	4/112
<b>Second Semester</b>			
CBFM	1334	Interior and Exterior Painting and Refinishing	3/96
<b>Total Hours</b>			<b>19</b>
<b>Total Clock Hours</b>			<b>512</b>

**Construction Trades (MTCO) 460401****Certificate of Completion***(Requires completion of MTC15 certificate)*

			<b>Cr/Clock</b>
ELPT	1411	Basic Electrical Theory	4/96
ELPT	1429	Residential Wiring	4/96
PFPB	2409	Residential Construction Plumbing I	4/96
PFPB	2445	Residential Construction Plumbing II	4/96
<b>Total Hours</b>			<b>16</b>
<b>Total Clock Hours</b>			<b>384</b>

**Residential Construction (MTR15) 460401****Certificate of Completion***(Brady Campus Only)*

<b>First Semester</b>			<b>Credit</b>
CRPT	1423	Floor Systems	4
CRPT	1415	Wall Systems	4
CRPT	1411	Roof Systems	4
CBFM	1334	Interior and Exterior Painting and Refinishing	3
<b>Second Semester</b>			
WDWK	2351	Cabinet Making II	3
MBST	1507	Masonry I	5
ELPT	1429	Residential Wiring	4
PFPB	2409	Residential Construction Plumbing I	4
<b>Total Hours</b>			<b>31</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Mathematics

The Associate of Science degree in Mathematics is designed for the student wishing to pursue a Baccalaureate degree. The Central Texas College curriculum is designed to maximize the transfer of lower level course work to the Baccalaureate degree granting public education institution within the State of Texas.

## Mathematics (MAT4) 270101

### Associate of Science Degree

Fall Semester			Credit
CORE REQ	HIST 1301	United States History I	3
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Language/Philosophy/Culture Studies	3
CORE REQ		MATH 1342 or 1414	3-4
Spring Semester			
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Life and Physical Science Selection	4
DEGR REQ	MATH 2412	Pre-Calculus Math	4
Summer Semester			
DEGR REQ	MATH 2413	Calculus I	4
Second Year			
First Semester			
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ		Creative Arts Selection	3
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		Social/Behavioral Science Selection	3
DEGR REQ	MATH 2414	Calculus II	4
Second Semester			
DEGR REQ	MATH 2415	Calculus III	4
DEGR REQ		MATH 2318 or 2320	3
CORE REQ		Component Area Option	4
CORE REQ		Life and Physical Science Selection	4
<b>Total Hours</b>			<b>60-61</b>

## Industrial Control and Robotic Technology (ELRT) 151202

### Certificate of Completion

First Semester		Credit
ELMT 1301	Programmable Logic Controllers	3
ENGR 2301	Engineering Mechanics I - Statics	3
TECM 1301	Industrial Mathematics	3
RBTC 1343	Robotics	3
Second Semester		
ENGR 2305	Electrical Circuits I	3
ENGR 2302	Engineering Mechanics II - Dynamics	3
RBTC 1345	Robot Interfacing	3
RBTC 2345	Robot Application, Set-up, and Testing	3
<b>Total Hours</b>		<b>24</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Medical Laboratory Technician

*Medical laboratory Technology, also known as Clinical Laboratory Scientist is a challenging and rewarding field. Medical laboratory Technicians, along with Medical Technologist, utilize the latest in modern instrumentation and test procedures to aid the physician in the detection, diagnosis and treatment of disease.*

## Medical Laboratory Technician (MLAB5) 511004 Associate of Applied Science Degree

Departmental approval is required for admission into the Medical Laboratory Technician/Clinical laboratory Technician (MLT/CLT) program. MLT/CLT application, physical form, immunizations, academic records are required BEFORE you schedule your pre-admission interview with the Program Director. CPR, negative Drug Screen (11 panel), negative Criminal Background check are required BEFORE you register for clinical courses. Clinical sites and times are subject to change. Please come to Science Building 150, room 1028 or call 526-1883 for application and forms. More information can be found under Departmental Admissions Requirements.

The Medical Laboratory Technician program at CTC is accredited by the National Accrediting Agency for Clinical Laboratory Sciences programs, 5600 N. River Road, Suite 72, Rosemont, IL 60018. (773) 714-8880. Upon completion of the program, students are eligible to take a national credentialing examination.

### First Year

First Semester		Credit	
MLAB	1470	Introduction to Clinical Laboratory Science/Urinalysis	4
BIOL	2401	Anatomy and Physiology I*	4
CHEM	1411	General Chemistry I*	4
MATH	1314	College Algebra	3

### Second Semester

MLAB	1415	Hematology	4
BIOL	2402	Anatomy and Physiology II*	4
MLAB	2221	Molecular Diagnostics	2
MLAB	1235	Immunology/Serology	2
ENGL	1301	Composition I	3

### Third Semester

MLAB	2462	Clinical I-MLT	4
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### Second Year

First Semester		Credit	
MLAB	2360	Clinical II-MLT	3
MLAB	2434	Clinical Microbiology	4
MLAB	2401	Clinical Chemistry	4
ELEC		Humanities/Fine Arts Selection	3

### Second Semester

MLAB	2361	Clinical III-MLT	3
MLAB	1231	Parasitology/Mycology	2
MLAB	2431	Immunoematology	4
ELEC		PSYC 2301 or SOCI 1301	3

**Total Hours** **60**

\* Credit in Science and MLAB courses must have been received within 5 years prior to enrollment in MLAB 1470.

## Phlebotomy Technician (PLAB7) 511009 Certificate of Completion

First Semester		Credit	
PLAB	1323	Phlebotomy	3
PLAB	1391	Special Topics in Phlebotomy/Phlebotomist	3
MDCA	1309	Anatomy & Physiology for Medical Assistants	3

### Second Semester

PLAB	1360	Clinical: Phlebotomy/Phlebotomist	3
HITT	1305	Medical Terminology	3
SPCH	1318	Interpersonal Communications	3

**Total Hours** **18**

*Not currently available for registration (State and/or Accreditation approval pending)*

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Mental Health Services

The Mental Health Services program offers Associate of Applied Science degrees and Certificates of Completion in the specialized areas of: Chemical Dependency, At Risk Youth, Social Work and Criminal Justice Addictions. These degrees and certificates are designed for students seeking employment in Mental Health related career fields. Employment opportunities in the Mental Health Services field are expected to rise due to the increased number of older persons, many of whom will require mental health services; increased public acceptance of formal treatment for substance abuse; and a lessening of the stigma attached to those receiving mental health care. Additionally, CTC's Associate of Applied Science degrees and certificates lay the foundation for those students wishing to pursue a Baccalaureate degree in Mental Health related career fields.

## At Risk Youth Specialization (MHAF4) 511503 Associate of Applied Science Degree

### First Year

First Semester			Credit
PSYT	1429	Interviewing & Communication Skills	4
DAAC	1319	Introduction to Alcohol and Other Drug Addictions	3
DAAC	1304	Pharmacology of Addiction	3
PSYC	1300	Learning Frameworks	3
PSYT	1309	Health Psychology	3

### Second Semester

CMSW	1309	Problems of Children & Adolescents	3
CMSW	1166	Practicum	1
GOVT	2305	Federal Government	3
ENGL	1301	Composition I	3
PSYC	2301	General Psychology	3
PSYT	2321	Crisis Intervention	3

### Second Year

#### First Semester

ENGL	1302	Composition II	3
DAAC	2307	Addicted Family Intervention	3
DAAC	1311	Counseling Theories	3
PSYT	2331	Abnormal Psychology	3
DAAC	2354	Dynamics of Group Counseling	3

#### Second Semester

MATH	1314	College Algebra	3
PSYT	2345	Principles of Behavior Management and Modification	3
SCWK	2301	Assessment and Case Management	3
CMSW	1167	Practicum	1
ELEC		Humanities/Fine Arts Selection	3

**Total Hours** 60

## At Risk Youth Advanced Certificate (MHA14) 511503 Certificate of Completion

First Semester			Credit
PSYT	1429	Interviewing & Communication Skills	4
DAAC	1319	Introduction to Alcohol and Other Drug Addictions	3
DAAC	1304	Pharmacology of Addiction	3
PSYC	1300	Learning Frameworks	3
PSYT	1309	Health Psychology	3

### Second Semester

CMSW	1309	Problems of Children and Adolescents	3
CMSW	1166	Practicum	1
DAAC	2306	Substance Abuse Prevention I	3
PSYT	2321	Crisis Intervention	3
DAAC	2307	Addicted Family Intervention	3
DAAC	1311	Counseling Theories	3

### Third Semester

PSYT	2331	Abnormal Psychology	3
DAAC	2354	Dynamics of Group Counseling	3
PSYT	2345	Principles of Behavior Management and Modification	3

### Second Year

#### First Semester

SCWK	2301	Assessment and Case Management	3
CMSW	1167	Practicum	1

**Total Hours** 45

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

**Chemical Dependency Specialization (MHCF5) 511503**  
**Associate of Applied Science Degree**

**First Year**

<b>First Semester</b>			<b>Credit</b>
PSYT	1429	Interviewing & Communication Skills	4
DAAC	1319	Introduction to Alcohol and Other Drug Addictions	3
DAAC	1304	Pharmacology of Addiction	3
PSYC	1300	Learning Frameworks	3
PSYT	1309	Health Psychology	3

**Second Semester**

CMSW	1309	Problems of Children and Adolescents	3
CMSW	1166	Practicum	1
DAAC	1309	Assessment Skills of Alcohol and Other Drug Addictions	3
ENGL	1301	Composition I	3
PSYC	2301	General Psychology	3
PSYT	2321	Crisis Intervention	3

**Second Year**

<b>First Semester</b>			
DAAC	2307	Addicted Family Intervention	3
DAAC	1311	Counseling Theories	3
PSYT	2331	Abnormal Psychology	3
DAAC	2354	Dynamics of Group Counseling	3
KINE		Physical Activity	1

**Second Semester**

MATH	1314	College Algebra	3
PSYT	2345	Principles of Behavior Management and Modification	3
DAAC	2341	Counseling Alcohol and Other Drug Addictions	3
DAAC	2367	Practicum	3
ELEC		Humanities/Fine Arts Selection	3
<b>Total Hours</b>			<b>60</b>

**Chemical Dependency Counseling (MHC14) 511503**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
PSYT	1429	Interviewing & Communication Skills	4
DAAC	1319	Introduction to Alcohol and Other Drug Addictions	3
DAAC	1304	Pharmacology of Addiction	3
PSYC	1300	Learning Frameworks	3
PSYT	1309	Health Psychology	3

**Second Semester**

CMSW	1309	Problems of Children and Adolescents	3
CMSW	1166	Practicum	1
DAAC	1309	Assessment Skill of Alcohol and Other Drug Addictions	3
PSYT	2321	Crisis Intervention	3
DAAC	2307	Addicted Family Intervention	3
DAAC	1311	Counseling Theories	3

**Third Semester**

PSYT	2331	Abnormal Psychology	3
DAAC	2354	Dynamics of Group Counseling	3
PSYT	2345	Principles of Behavior Management and Modification	3

**Second Year**

<b>First Semester</b>			
DAAC	2341	Counseling Alcohol and Other Drug Addictions	3
DAAC	2367	Practicum	3
<b>Total Hours</b>			<b>47</b>

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**Criminal Justice Addictions (MCJ13) 511503**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
PSYT	1429	Interviewing & Communications Skills	4
DAAC	1319	Introduction to Alcohol & Other Drug Addictions	3
DAAC	1304	Pharmacology of Addiction	3
PSYC	1300	Learning Frameworks	3
PSYT	1309	Health Psychology	3
<b>Second Semester</b>			
CMSW	1309	Problems of Children & Adolescents	3
CMSW	1166	Practicum	1
DAAC	1309	Assessment Skill of Alcohol & Other Drug Addictions	3
PSYT	2321	Crisis Intervention	3
DAAC	2307	Addicted Family Intervention	3
PSYT	2331	Abnormal Psychology	3
<b>Third Semester</b>			
PSYT	2345	Principles of Behavior Management and Modification	3
DAAC	2354	Dynamics of Group Counseling	3
DAAC	2301	Therapeutic Communities in a Criminal Justice Setting	3
<b>Second Year</b>			
<b>First Semester</b>			
DAAC	2341	Counseling Alcohol & Other Drug Addictions	3
DAAC	2367	Practicum	3
<b>Total Hours</b>			<b>47</b>

**Social Work Specialization (MHSF4) 511503**  
**Associate of Applied Science**

<b>First Year</b>			<b>Credit</b>
<b>First Semester</b>			
PSYT	1429	Interviewing & Communications Skills	4
DAAC	1319	Introduction to Alcohol and Other Drug Addictions	3
DAAC	1304	Pharmacology of Addiction	3
PSYC	1300	Learning Frameworks	3
PSYT	1309	Health Psychology	3
<b>Second Semester</b>			
CMSW	1309	Problems of Children & Adolescents	3
CMSW	1166	Practicum	1
GOVT	2305	Federal Government	3
ENGL	1301	Composition I	3
PSYC	2301	General Psychology	3
PSYT	2321	Crisis Intervention	3
<b>Second Year</b>			
<b>First Semester</b>			
ENGL	1302	Composition II	3
SOCW	2361	Introduction to Social Work	3
DAAC	1311	Counseling Theories	3
PSYT	2331	Abnormal Psychology	3
DAAC	2354	Dynamics of Group Counseling	3
<b>Second Semester</b>			
MATH	1314	College Algebra	3
SOCW	2362	Social Welfare as a Social Institution	3
SCWK	2301	Assessment & Case Management	3
CMSW	1167	Practicum	1
ELEC		Humanities/Fine Arts Selection	3
<b>Total Hours</b>			<b>60</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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**Basic Mental Health Professional (MHBP) 511501**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
PSYT	1429	Interviewing & Communications Skills	4
DAAC	1319	Introduction to Alcohol & Other Drug Addictions	3
DAAC	1304	Pharmacology of Addiction	3
PSYC	1300	Learning Frameworks	3
PSYT	1309	Health Psychology	3
<b>Second Semester</b>			
CMSW	1309	Problems of Children & Adolescents	3
CMSW	1166	Practicum	1
<b>Total Hours</b>			<b>20</b>

**Community Health Worker (MHCH) 511504**  
**Certificate of Completion**

			<b>Credit</b>
CHLT	1301	Introduction to Community Health	3
CHLT	1302	Wellness and Health Promotion	3
CHLT	1340	Community Health Advocacy	3
CHLT	1341	Environmental Health	3
CHLT	1342	Community Health Field Methods	3
or			
CHLT	1391	Special Topics in Community Health	3
CHLT	2367	Practicum - Community Health Services	3
<b>Total Hours</b>			<b>18</b>

*\*Available for registration as of Spring 2018 (January)*

**Substance Abuse Prevention Specialist (MHP14) 511501**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
PSYT	1429	Interviewing & Communications Skills	4
DAAC	1319	Introduction to Alcohol & Other Drug Addictions	3
DAAC	1304	Pharmacology of Addiction	3
PSYC	1300	Learning Frameworks	3
PSYT	1309	Health Psychology	3
<b>Second Semester</b>			
CMSW	1309	Problems of Children & Adolescents	3
CMSW	1166	Practicum	1
DAAC	2306	Substance Abuse Prevention I	3
PSYT	2321	Crisis Intervention	3
DAAC	2307	Addicted Family Intervention	3
<b>Third Semester</b>			
DAAC	2353	Substance Abuse Prevention II	3
PSYT	2345	Principles of Behavior Management and Modification	3
DAAC	1167	Practicum	1
<b>Total Hours</b>			<b>36</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

# Department of Nursing & Allied Health

## Nursing Associate Degree (NUA15) 513801 Associate of Applied Science Degree

The Nursing Associate Degree program is accredited by the Accreditation Commission in Nursing, Inc. (ACEN), Marsal P. Stoll, EdD, RN, Executive Director, 3343 Peachtree Road, NE, Suite 500; Atlanta, GA 30326; P. 404-975-5000, F. 404-975-5020, [www.acennursing.org](http://www.acennursing.org).

The Nursing Associate Degree is a prelicensure nursing program which enables the graduate to sit the National Council Licensure Examination-Registered Nurse (NCLEX-RN®) and prepares graduates for professional practice in a variety of health care settings. The A.D.N. program provides classroom instruction and coordinated supervised clinical experiences in the nursing care of clients in local affiliated health care agencies. The CTC A.D.N. program is approved by the Texas Board of Nursing (TBON) and is fully accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN).

### Prerequisite Semester

#### First Year

First Semester			Credit
BIOL	2401	Anatomy and Physiology I	4
BIOL	2420*	Microbiology for Non-science Majors	4
ENGL	1301	Composition I	3
HPRS	2300	Pharmacology for Health Professions**	3

### Admission into the Associate Degree Nursing Program

#### Second Semester

RNSG	1115	Health Assessment	1
RNSG	1413	Foundations for Nursing Practice	4
RNSG	1262	Clinical - Nursing I	2
BIOL	2402	Anatomy and Physiology II	4

#### Third Semester

RNSG	1331	Principles of Clinical Decision Making	3
RNSG	2213	Mental Health Nursing	2
RNSG	1363	Clinical-Nursing II	3
PSYC	2301	General Psychology	3

#### Fourth Semester

RNSG	1347	Concepts of Clinical Decision Making	3
RNSG	1412	Nursing Care of Childbearing and Childrearing Family	4
RNSG	2362	Clinical-Nursing III	3
PSYC	2314	Life Span Growth and Development	3

#### Fifth Semester

RNSG	2331	Advanced Concepts of Adult Health	3
RNSG	2221	Professional Nursing: Leadership and Management	2
RNSG	2363	Clinical-Nursing IV	3
ELEC		Humanities/Fine Arts Selection	3

**Total Hours** 60

\* BIOL 2421 may be accepted in lieu of BIOL 2420.

\*\* BIOL 2401 is a recommended prerequisite or co-requisite for this course.

## Nursing – Prospective ADN Student (NU15.CC1) 513801 Certificate of Completion

First Semester			Credit
BIOL	2401	Anatomy & Physiology I	4
HPRS	2300	Pharmacology	3
*BIOL	2420*	Microbiology	4
ENGL	1301	Composition I	3

#### Second Semester

PSYC	2301	General Psychology	3
PSYC	2314	Life Span Growth and Development	3
BIOL	2402	Anatomy and Physiology II	4
ELEC		Humanities/Fine Arts Selection	3

**Total Hours** 27

\* BIOL 2421 may be accepted in lieu of BIOL 2420.

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful-employment/](http://ctcd.edu/academics/gainful-employment/)*



## Nursing Option for Articulating Student (NOA15) 513801 Associate of Applied Science Degree

### Prerequisite Semester

#### First Year

First Semester			Credit
BIOL	2401	Anatomy and Physiology I	4
ENGL	1301	Composition I	3
PSYC	2301	General Psychology	3

#### Second Semester

BIOL	2402	Anatomy and Physiology II	4
BIOL	2420*	Microbiology for Non-science Majors	4
RNSG	1229	Integrated Nursing Skills II	2
HPRS	2300	Pharmacology for Health Professions	3

### Admission into the Associate Degree Nursing Program

#### Third Semester

RNSG	1331	Principles of Clinical Decision Making	3
RNSG	2213	Mental Health Nursing	2
RNSG	1363	Clinical Nursing II	3
PSYC	2314	Life Span Growth and Development	3

#### Fourth Semester

RNSG	1347	Concepts of Clinical Decision Making	3
RNSG	1412	Nursing Care of Childbearing and Childrearing Family	4
RNSG	2362	Clinical - Nursing III	3

#### Fifth Semester

RNSG	2331	Advanced Concepts of Adult Health	3
RNSG	2221	Professional Nursing: Leadership and Management	2
RNSG	2363	Clinical-Nursing IV	3
ELEC		Humanities/Fine Arts Selection	3

Upon successful completion of the last semester, Articulation Students will receive credit for RNSG 1413 and 1115.

**Total Hours** **60**

\* BIOL 2421 may be accepted in lieu of BIOL 2420.

## Nursing – Prospective Articulating Student (NOAP5.CC1) 513801 Certificate of Completion

First Semester			Credit
BIOL	2401	Anatomy & Physiology I	4
ENGL	1301	Composition I	3
PSYC	2301	General Psychology	3

#### Second Semester

BIOL	2402	Anatomy and Physiology II	4
*BIOL	2420	Microbiology	4
HPRS	2300	Pharmacology	3
RNSG	1229	Integrated Nursing Skills II	2

#### Other Requirements

PSYC	2314	Life Span Growth and Development	3
ELEC		Humanities/Fine Arts Selection	3

**Total Hours** **29**

\* BIOL 2421 may be accepted in lieu of BIOL 2420.

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful-employment/](http://ctcd.edu/academics/gainful-employment/)*

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## VOCATIONAL NURSING

### Vocational Nursing (NUVF5) 513901

#### Certificate of Completion Fall Admission

*A 12 month certificate program which enables the graduate to sit the National Council Licensure Examination-Practical Nurse (NCLEX-PN®) and prepares graduates for practical/vocational nursing practice in a variety of health care settings. The V.N. program provides classroom instruction and coordinated supervised clinical experiences in the nursing care of clients in local affiliated health care agencies. The CTC V.N. program is approved by the Texas Board of Nursing (TBON).*

<b>First Semester (Prerequisites)</b>			<b>Credit</b>
BIOL	2401	Anatomy & Physiology I	4
HPRS	2300	Pharmacology	3
<b>Second Semester (fall)</b>			
VNSG	1126	Gerontology	1
VNSG	1323	Basic Nursing Skills	3
VNSG	1222	Vocational Nursing Concepts	2
VNSG	1227	Essentials of Medication Administration	2
VNSG	2331	Advanced Nursing Skills	3
VNSG	1160	Clinical-Practical Nurse I	1
<b>Third Semester (spring)</b>			
VNSG	1301	Mental Health & Mental Illness	3
VNSG	1219	Leadership and Professional Development	2
VNSG	1429	Medical-Surgical Nursing I	4
VNSG	1560	Clinical-Practical Nurse II	5
<b>Fourth Semester (summer)</b>			
VNSG	1230	Maternal/Neonatal Nursing	2
VNSG	1234	Pediatrics	2
VNSG	1432	Medical-Surgical Nursing II	4
VNSG	2360	Clinical-Practical Nurse III	3
<b>Total Hours</b>			<b>44</b>

### Vocational Nursing (NUVS6) 513901

#### Certificate of Completion Spring Admission

*A 12 month certificate program which enables the graduate to sit the National Council Licensure Examination-Practical Nurse (NCLEX-PN®) and prepares graduates for practical/vocational nursing practice in a variety of health care settings. The V.N. program provides classroom instruction and coordinated supervised clinical experiences in the nursing care of clients in local affiliated health care agencies. The CTC V.N. program is approved by the Texas Board of Nursing (TBON).*

<b>First Semester (Prerequisites)</b>			<b>Credit</b>
BIOL	2401	Anatomy & Physiology I	4
HPRS	2300	Pharmacology	3
<b>Second Semester (spring)</b>			
VNSG	1126	Gerontology	1
VNSG	1323	Basic Nursing Skills	3
VNSG	1222	Vocational Nursing Concepts	2
VNSG	1227	Essentials of Medication Administration	2
VNSG	2331	Advanced Nursing Skills	3
VNSG	1160	Clinical-Practical Nurse I	1
<b>Third Semester (summer)</b>			
VNSG	1230	Maternal/Neonatal Nursing	2
VNSG	1234	Pediatrics	2
VNSG	1432	Medical-Surgical Nursing II	4
VNSG	1360	Clinical-Practical Nurse II	3
<b>Third Semester</b>			
VNSG	1301	Mental Health & Mental Illness	3
VNSG	1219	Leadership and Professional Development	2
VNSG	1429	Medical-Surgical Nursing I	4
VNSG	2560	Clinical-Practical Nurse III	5
<b>Total Hours</b>			<b>44</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Office Technology

The Office Technology Department offers educational paths for meaningful careers in professional and health-related office settings. Students master state-of-the-art computer software applications as well as communication and interpersonal skills to equip them for employment in the global workforce.

Six of the Office Technology certificates of completion within this program may be completed through the Career and Technology Education (CATE) Center. The CATE Center offers students instruction through an open-entry delivery format. This instructional clock hour format or semester credit hour provides flexibility to accommodate the special needs of the student.

## Office Technology (OT15) 520401 Associate of Applied Science Degree

(\* Course offered in both the open-entry and online delivery formats)

### First Year

#### First Semester

			Cr/Clock
POFT	1329	Beginning Keyboarding*	3/96
POFI	1301	Computer Applications I*	3/96
POFT	1301	Business English*	3/96
POFT	1319	Records & Information Management I*	3/96
POFT	1325	Business Math Using Technology*	3/96
POFT	1309	Administrative Office Procedures I*	3/96

#### Second Semester

POFI	2301	Word Processing*	3/96
POFT	2312	Business Correspondence and Communication*	3/96
POFI	2331	Desktop Publishing*	3/96
POFI	1349	Spreadsheets*	3/96

### Second Year

#### First Semester

POFT	2333	Advanced Keyboarding*	3/96
BMGT	1325	Office Management	3/96
HRPO	2301	Human Resources Management	3/96
POFT	1349	Administrative Office Procedures II*	3/96
ELEC		POFI/POFM/POFT Internship Selection*	3/144

#### Second Semester

SPCH		SPCH 1315 or 1321	3/96
ELEC		Humanities/Fine Arts Selection	3/96
ELEC		Social/Behavioral Science Selection	3/96
MATH	1332	Contemporary Mathematics (Quantitative Reasoning)	3/96
ENGL	1301	Composition I	3/96

#### Total Hours

**60**

#### Total Credit Hours

**1968**

## Office Technology Specialist (OTS15) 520401 Certificate of Completion

(\* Course offered in both the open-entry and online delivery formats)

### First Semester

			Cr/Clock
POFT	1329	Beginning Keyboarding*	3/96
POFI	1301	Computer Applications I*	3/96
POFT	1301	Business English*	3/96
POFT	1319	Records & Information Mgmt. I*	3/96
POFT	1325	Business Math Using Technology*	3/96
POFT	1309	Administrative Office Procedures I*	3/96

### Second Semester

POFI	2301	Word Processing*	3/96
POFT	2312	Business Correspondence and Communication*	3/96
POFI	2331	Desktop Publishing*	3/96
POFI	1349	Spreadsheets*	3/96

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

<b>Third Semester</b>			
POFT	2333	Advanced Keyboarding*	3/96
BMGT	1325	Office Management*	3/96
HRPO	2301	Human Resources Management	3/96
POFT	1349	Administrative Office Procedures II*	3/96
ELEC		POFI/POFM/POFT Internship Selection*	3/144
<b>Total Hours</b>			<b>45</b>
<b>Total Credit Hours</b>			<b>1440</b>

## **General Office Assistant (OTG12) 520401**

### **Certificate of Completion**

(Offered at Texas Department of Criminal Justice Gatesville, Texas, Only)

<b>First Semester</b>			<b>Credit</b>
POFI	1301	Computer Applications I	3
POFT	1329	Beginning Keyboarding	3
POFT	1309	Administrative Office Procedures I	3
POFT	1301	Business English	3
<b>Second Semester</b>			
POFT	1325	Business Math Using Technology	3
POFT	1319	Records & Information Mgmt. I	3
POFT	2312	Business Correspondence and Communication	3
<b>Third Semester</b>			
POFI	2301	Word Processing	3
POFT	1349	Administrative Office Procedures II	
or			
POFI	2331	Desktop Publishing	3
POFI	1349	Spreadsheets	3
<b>Total Hours</b>			<b>30</b>

## **Office Technology Professional (OTP15) 520401**

### **Certificate of Completion**

(All courses offered in both the open-entry and online delivery formats)

<b>First Semester</b>			<b>Cr/Clock</b>
POFT	1329	Beginning Keyboarding	3/96
POFI	1301	Computer Applications I	3/96
POFT	1301	Business English	3/96
POFT	1319	Records & Information Mgmt. I	3/96
POFT	1325	Business Math Using Technology	3/96
POFT	1309	Administrative Office Procedures I	3/96
<b>Second Semester</b>			
POFI	2301	Word Processing	3/96
POFT	2312	Business Correspondence and Communication	3/96
POFI	2331	Desktop Publishing	3/96
POFI	1349	Spreadsheets	3/96
<b>Total Hours</b>			<b>30</b>
<b>Total Clock Hours</b>			<b>960</b>

## **Office Technology Support (OTSP5) 520401**

### **Certificate of Completion**

(All courses offered in block, open-entry and online delivery formats)

			<b>Cr/Clock</b>
POFT	1329	Beginning Keyboarding	3/96
POFI	1301	Computer Applications I	3/96
POFI	1301	Business English	3/96
POFT	1319	Records & Information Management I	3/96
POFT	1325	Business Math Using Technology	3/96
POFT	1309	Administrative Office Procedures I	3/96
<b>Total Hours</b>			<b>18</b>
<b>Total Clock Hours</b>			<b>480</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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## Medical Office Technology (OTM15) 510716

### Associate of Applied Science Degree

(\*Courses offered in both the open-entry and online delivery formats)

#### First Year

First Semester			Cr/Clock
POFT	1329	Beginning Keyboarding*	3/96
POFI	1301	Computer Applications I*	3/96
POFT	1301	Business English*	3/96
HITT	1305	Medical Terminology I*	3/96
POFT	1325	Business Math Using Technology*	3/96
POFM	1317	Medical Administrative Support*	3/96

#### Second Semester

POFI	2301	Word Processing*	3/96
POFI	1349	Spreadsheets*	3/96
POFM	1302	Medical Software Applications*	3/96
HITT	1301	Health Data Content and Structure*	3/96

#### Second Year

First Semester			
POFT	2312	Business Correspondence and Communication*	3/96
HITT	1303	Medical Terminology II*	3/96
POFM	1327	Medical Insurance*	3/96
ELEC		POFI/POFM/POFT Internship Selection	3/144

#### Second Semester

ENGL	1301	Composition I	3/96
MATH	1332	Contemporary Mathematics (Quantitative Reasoning)	3/96
SPCH		SPCH 1315 or 1321	3/96
ELEC		Humanities/Fine Arts Selection	3/96
ELEC		Social/Behavioral Science Selection	3/96
ELEC		HITT/MDCA/MRMT/POFI/POFM/POFT Selection*	3/96

#### Total Hours

60

#### Total Clock Hours

1968

## Medical Office Technology Specialist (OTMO5) 510716

### Certificate of Completion

(All courses offered in both the open-entry and online delivery formats)

First Semester			Cr/Clock
POFT	1329	Beginning Keyboarding	3/96
POFI	1301	Computer Applications I	3/96
POFT	1301	Business English	3/96
HITT	1305	Medical Terminology I	3/96
POFT	1325	Business Math Using Technology	3/96
POFM	1317	Medical Administrative Support	3/96

#### Second Semester

POFI	2301	Word Processing	3/96
POFI	1349	Spreadsheets	3/96
POFM	1302	Medical Software Applications	3/96
HITT	1301	Health Data Content and Structure	3/96

#### Third Semester

POFT	2312	Business Correspondence and Communication	3/96
HITT	1303	Medical terminology II	3/96
POFM	1327	Medical Insurance	3/96
ELEC		POFI/POFM/POFT Internship Selection	3/144

#### Total Hours

42

#### Total Clock Hours

1392

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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## Medical Office Technology Professional (OTMP) 510716

### Certificate of Completion

(All courses offered in both the open-entry and online delivery formats)

#### First Year

First Semester			Cr/Clock
POFT	1329	Beginning Keyboarding	3/96
POFI	1301	Computer Applications I	3/96
POFT	1301	Business English	3/96
HITT	1305	Medical Terminology I	3/96
POFT	1325	Business Math Using Technology	3/96
POFM	1317	Medical Administrative Support	3/96

#### Second Semester

POFI	2301	Word Processing	3/96
POFI	1349	Spreadsheets	3/96
POFM	1302	Medical Software Applications	3/96
HITT	1301	Health Data Content and Structure	3/96

**Total Hours** 30

**Total Clock Hours** 960

## Medical Office Technology Support (OTMS5) 510716

### Certificate of Completion

(All courses offered in both the open-entry and online delivery formats)

First Semester			Cr/Clock
POFT	1329	Beginning Keyboarding	3/96
POFI	1301	Computer Applications I	3/96
POFT	1301	Business English	3/96
HITT	1305	Medical Terminology I	3/96
POFT	1325	Business Math Using Technology	3/96
POFM	1317	Medical Administrative Support	3/96

**Total Hours** 18

**Total Clock Hours** 576

## Medical Coding and Billing (OTMCB) 510713

### Associate of Applied Science

(Program may be completed online, some courses available in traditional or open-entry format) (\*Courses available in open-entry format)

#### First Year

First Semester			Cr/Clock
HITT	1305	Medical Terminology I*	3/96
POFM	1302	Medical Software Applications*	3/96
HITT	1301	Health Data Content & Structure*	3/96
HITT	1341	Coding and Classification Systems*	3/96
MDCA	1302	Human Disease/Pathophysiology	3/96

#### Second Semester

HITT	2335	Coding and Reimbursement Methodologies	3/96
HITT	1303	Medical Terminology II*	3/96
POFM	1327	Medical Insurance*	3/96
MDCA	1309	Anatomy & Physiology for Medical Assistants	3/96
POFM	2310	Intermediate Medical Coding	3/96

#### Second Year

First Semester			Cr/Clock
POFI	1301	Computer Applications I*	3/96
POFT	1301	Business English*	3/96
HITT	1349	Pharmacology	3/96
HITT	2361	Clinical - Health Information/Medical Records Technology/Technician	3/144

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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<b>Second Semester</b>			
ENGL	1301	Composition I	3/96
MATH	1332	Contemporary Mathematics (Quantitative Reasoning)	3/96
SPCH		SPCH 1315 or 1321	3/96
ELEC		Humanities/Fine Arts Selection	3/96
ELEC		Social/Behavioral Science Selection	3/96
ELEC		HITT/MDCA/MRMT/POFM*	3/96
<b>Total Hours</b>			<b>60</b>
<b>Total Clock Hours</b>			<b>1968</b>

## Medical Coding and Billing (OTMC5) 510713

### Certificate of Completion

(Program may be completed online, some courses available in traditional or open-entry format) (All courses offered in both open-entry and online delivery formats.)

<b>First Semester</b>			<b>Cr/Clock</b>
HITT	1305	Medical Terminology I	3/96
POFM	1302	Medical Software Applications	3/96
HITT	1301	Health Data Content & Structure	3/96
HITT	1341	Coding and Classification Systems	3/96
MDCA	1302	Human Disease/Pathophysiology	3/96
<b>Second Semester</b>			
HITT	2335	Coding and Reimbursement Methodologies	3/96
HITT	1303	Medical Terminology II	3/96
POFM	1327	Medical Insurance	3/96
MDCA	1309	Anatomy & Physiology for Medical Assistants	3/96
POFM	2310	Intermediate Medical Coding	3/96
<b>Third Semester</b>			
POFI	1301	Computer Applications I	3/96
POFT	1301	Business English	3/96
HITT	1349	Pharmacology	3/96
HITT	2361	Clinical-Health Information/Medical Records Technology/Technician	3/144
<b>Total Hours</b>			<b>42</b>
<b>Total Clock Hours</b>			<b>1392</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Paralegal/Legal Assistant

The Paralegal/Legal Assistant curriculum is designed primarily for persons who seek full or part-time employment as paralegals. The curriculum also serves students who are exploring their interest in law related careers, including as lawyers. The 2-year program culminates in an Associate of Applied Science Degree. Students may start in the program in any of the three semesters and each semester, one or more classes are offered online.

## Paralegal/Legal Assistant (LAS15) 220302 Associate of Applied Science Degree

### First Year

#### First Semester

			Credit
LGLA	1301	Legal Research and Writing	3
LGLA	1307	Introduction to Law and the Legal Profession	3
ENGL	1301	Composition I	3
ELEC		BCIS 1305 or ITSC 1309	3

#### Second Semester

LGLA	1317	Law Office Technology	3
LGLA	1345	Civil Litigation	3
LGLA	1351	Contracts	3
LGLA	1355	Family Law	3
MATH		MATH 1324 or 1342 or 1332	3
SPCH		SPCH 1315 or 1321	3

### Second Year

#### First Semester

LGLA	1353	Wills, Trusts, and Probate Administration	3
POFT	1307	Proofreading and Editing	
or			
ACNT	1311	Introduction to Computerized Accounting	
or			
ACNT	1329	Payroll and Business Tax Accounting	3
LGLA	2303	Torts and Personal Injury Law	3
POFT	2312	Business Correspondence and Communication	3
GOVT	2305	Federal Government	3

#### Second Semester

LGLA	2313	Criminal Law and Procedures	3
POFT	1309	Administrative Office Procedures I	3
ELEC		Humanities/Fine Arts Selection	3
LGLA		Legal Elective	3
LGLA	2333	Advanced Legal Document Preparation	
or			
LGLA	2335	Advanced Civil Litigation	3
<b>Total Hours</b>			<b>60</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*



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**Paralegal/Legal Assistant (LAS16) 220301  
Certificate of Completion**

**First Year**

<b>First Semester</b>			<b>Credit</b>
LGLA	1301	Legal Research and Writing	3
LGLA	1307	Introduction to Law and the Legal Profession	3
LGLA	1317	Law Office Technology	3
LGLA	1351	Contracts	3
LGLA	1355	Family Law	3

**Second Semester**

LGLA	1345	Civil Litigation	3
LGLA	1353	Wills, Trusts, and Probate Administration	3
ELEC		BCIS 1305 or ITSC 1309	3
POFT	1309	Administrative Office Procedures I	3
POFT	1307	Proofreading and Editing	
or			
ACNT	1311	Introduction to Computerized Accounting	
or			
ACNT	1329	Payroll and Business Tax Accounting	3
<b>Total Hours</b>			<b>30</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Protective Services

The Protective Services Department follows the principles and guidelines of the Central Texas College mission, utilizing its resources to provide qualified individuals for local, state, national, and international public criminal justice agencies. Further, it assists students in making intelligent career choices and assists the field in providing qualified employees by guaranteeing the performance of its graduates.

## Criminal Justice (CJCJ5) 430104 Associate of Applied Science Degree

### First Year

First Semester		Credit
CJSA1322/CRIJ 1301	Introduction to Criminal Justice	3
CJSA 2300/CRIJ 2323	Legal Aspects of Law Enforcement	3
CJSA 1313/CRIJ 1306	Court Systems and Practices	3
CJSA 1312/CRIJ 1307	Crime in America	3
ENGL 1301	Composition I	3

### Second Semester

CJSA 1327/CRIJ 1310	Fundamentals of Criminal Law	3
CJSA 1317/CRIJ 1313	Juvenile Justice System	3
CJSA 1348	Ethics in Criminal Justice	3
ENGL	ENGL 1302 or 2311	3
MATH	MATH 1332, 1342 or higher level	3

### Second Year

First Semester		Credit
CJSA 1359/CRIJ 2328	Police Systems and Practices	3
CJSA 1342/CRIJ 2314	Criminal Investigation	3
ELEC	Criminal Justice Elective	3
SOCI 1301	Introduction to Sociology	3
GOVT 2305	Federal Government	3

### Second Semester

CJSA 2331	Child Abuse, Prevention and Investigation	3
ELEC	Criminal Justice Elective	3
SPCH	SPCH 1315 or SPCH 1321	3
ELEC	Humanities/Fine Arts Selection	3
ELEC	Computer Technology Skills	3
<b>Total Hours</b>		<b>60</b>

## Criminal Justice - Corrections Specialization (CJCR5) 430104 Associate of Applied Science Degree

### First Year

First Semester		Credit
CJSA 1322/CRIJ 1301	Introduction to Criminal Justice	3
CJCR 2325	Legal Aspects of Corrections	3
CJSA 1313/CRIJ 1306	Court Systems and Practices	3
CJSA 1312/CRIJ 1307	Crime in America	3
ENGL 1301	Composition I	3

### Second Semester

CJSA 1327/CRIJ 1310	Fundamentals of Criminal Law	3
CJCR 1304	Probation and Parole	3
CJSA 1348	Ethics in Criminal Justice	3
ENGL	ENGL 1302 or 2311	3
MATH	MATH 1332, 1342 or higher level	3

### Second Year

First Semester		Credit
CJCR 1307/CRIJ 2313	Correctional Systems and Practices	3
CJCR 2324/CRIJ 2301	Community Resources in Corrections	3
ELEC	Criminal Justice Elective	3
SOCI 1301	Introduction to Sociology	3
GOVT 2305	Federal Government	3

### Second Semester

CJCR 1358	Rights of Prisoners	3
ELEC	Criminal Justice Elective	3
SPCH	SPCH 1315 or SPCH 1321	3
ELEC	Humanities/Fine Arts Selection	3
ELEC	Computer Technology Skills	3
<b>Total Hours</b>		<b>60</b>

## Criminal Justice Studies with Specialization 430104 Certificate of Completion

### First Year

#### First Semester (Core Courses)

		Credit
CJSA 1312/CRIJ 1307	Crime in America	3
CJSA 1313/CRIJ 1306	Court Systems and Practices	3
CJSA 1348	Ethics in Criminal Justice	3
CJSA 1322/CRIJ 1301	Intro to Criminal Justice	3
CJSA 1359/CRIJ 2328	Police Systems and Practices	3
<b>Core Courses Total</b>		<b>15</b>

#### (Criminal Justice Studies Specialization-CJCJ)

#### Second Semester

CJSA 1342/CRIJ 2314	Criminal Investigation	3
CJSA 1327/CRIJ 1310	Fundamentals of Criminal Law	3
CJSA 1317/CRIJ 1313	Juvenile Justice System	3
CJSA 2300/CRIJ 2323	Legal Aspects of Law Enforcement	3
ELEC	Criminal Justice Elective	3
<b>Specialization Courses Total</b>		<b>15</b>
<b>Certificate Total</b>		<b>30</b>

#### (Criminal Justice Corrections Specialization-CJCR)

#### Second Semester

CJCR 2325	Legal Aspects of Corrections	3
CJCR 1304	Probation and Parole	3
CJCR 1307/CRIJ 2313	Correctional Systems and Practices	3
CJCR 2324/CRIJ 2301	Community Resources in Corrections	3
ELEC	Criminal Justice Elective	3
<b>Specialization Courses Total</b>		<b>15</b>
<b>Certificate Total</b>		<b>30</b>

## Basic Peace Officer (BPC4) 430107 Certificate of Completion

		Credit
CJLE 1506	Basic Peace Officer I	5
CJLE 1512	Basic Peace Officer II	5
CJLE 1518	Basic Peace Officer III	5
CJLE 1524	Basic Peace Officer IV	5
CJLE 1329	Basic Peace Officer V	3
<b>Total Hours</b>		<b>23</b>

## Fire Protection Technology (BFPC.CC)

Central Texas College offers the workforce education courses listed below in Fire Protection Technology.

FIRT 1301	Fundamentals of Fire Protection	3
FIRT 1309	Fire Administration I	3
FIRT 2309	Firefighting Strategies and Tactics I	3
FIRT 1338	Fire Protection Systems	3
<b>Total Hours</b>		<b>12</b>

Upon successful completion of 12 semester credit hours the student may meet the initial employment requirements of a municipal fire department.

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Public Administration

*This program is designed for individuals interested in entering the field of Emergency Management Planning and Homeland Security and additionally for those currently in an emergency response profession seeking to update or broaden their skills. The Associate of Applied Science degree and certificate will prepare students for decision making, problem solving, and skills to plan, implement, and coordinate resources necessary for preparedness, mitigation, response, and recovery from disasters. A number of the courses are pre-approved equivalents to courses offered by the Texas Department of Emergency Management and the Federal Management Agency.*

## Homeland Security and Emergency Management (HS15) 440401 Associate of Applied Science Degree

### First Year

First Semester			Credit
HMSY	1337	Introduction to Homeland Security	3
EMAP	1400	Principles of Basic Emergency Management	4
HMSY	1371	Counter Terrorism	3
ENGL	1301	Composition I	3
GOVT	2305	Federal Government	3

### Second Semester

HMSY	1338	Homeland Security Emergency Communications Management	3
HMSY	1340	Homeland Security Intelligence Operations	3
HMSY	1341	Critical Infrastructure Protection	3
HMSY	1342	Understanding and Combating Terrorism	3

### Second Year

#### First Semester

KINE		Physical Activity Course	1
ELEC		Humanities/Fine Arts Selection	3
MATH		MATH 1332, 1342 or higher level	3
HMSY	1370	IT Security for Homeland Security Specialists	3
ELEC		Social/Behavioral Science Selection	3
EMAP	2355	Disaster Recovery	3

#### Second Semester

EMAP	2300	Developing Volunteer Resources and Decision Making	3
EMAP	2301	Leadership and Effective Communication	3
EMAP	2302	Managing Mass Casualty and Fatality Incidents	3
HMSY	2337	Managing a Unified Incident Command	3
HMSY	1470	Final Project in Homeland Security and Emergency Management	4
<b>Total Hours</b>			<b>60</b>

## Homeland Security and Emergency Management (HS15) 440401 Certificate of Completion

First Semester			Credit
HMSY	1337	Introduction to Homeland Security	3
EMAP	1400	Principles of Basic Emergency Management	4
HMSY	1341	Critical Infrastructure Protection	3
HMSY	1338	Homeland Security Emergency Communications Management	3
HMSY	1342	Understanding and Combating Terrorism	3

#### Second Semester

EMAP	2355	Disaster Recovery	3
EMAP	2300	Developing Volunteer Resources and Decision Making	
or			
HMSY	1370	IT Security for Homeland Security Specialists	3
EMAP	2301	Leadership and Effective Communication	
or			
HMSY	1371	Counter Terrorism	3
HMSY	2337	Managing a Unified Incident Command	3
HMSY	1470	Final Project in Homeland Security and Emergency Management	4
<b>Total Hours</b>			<b>32</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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**Homeland Security (HSHS) 440401**  
**Certificate of Completion**

<b>First Semester</b>		<b>Credit</b>
HMSY 1337	Introduction to Homeland Security	3
HMSY 1340	Homeland Security Intelligence Ops	3
HMSY 1341	Critical Infrastructure Protection	3
HMSY 1342	Understanding and Combating Terrorism	3
HMSY 2337	Managing a Unified Incident Command	3
HMSY 1371	Counter Terrorism	3
<b>Total Hours</b>		<b>18</b>

**Emergency Management (EMHS) 440401**  
**Certificate of Completion**

<b>First Semester</b>		<b>Credit</b>
EMAP 1400	Principles of Basic Emergency Management	4
EMAP 2300	Developing Volunteer Resources and Decision Making	3
EMAP 2302	Managing Mass Casualty and Fatality Incidents	3
EMAP 2355	Disaster Recovery	3
HMSY 1338	Homeland Security Emergency Communications Management	3
<b>Total Hours</b>		<b>16</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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# Radio and Television Broadcasting

*We are on the threshold of a communications revolution. The number of channels of information which can be delivered to people around the world is increasing at a staggering rate. The Radio/Television Broadcasting Program at Central Texas College prepares students to be the innovators and the creative leaders for this growing communications future. Hands-on, practical, and comprehensive, the program instructs students in a variety of broadcasting fields, present and future.*

*The Associate of Arts degree in Radio/Television Broadcasting is designed for the student wishing to pursue a Baccalaureate degree. The Central Texas College curriculum is designed to maximize the transfer of lower level course work to the Baccalaureate degree granting institution. As well as providing transfer credits and a hands-on, practical learning experience, the Certificates of Completion provide students with foundation skills which may be applied to the Central Texas College Associates of General Studies degree.*

## Radio/Television Broadcasting (RTB14) 090701

### Associate of Art Degree

First Semester			Credit
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
DEGR REQ	COMM 1335	Introduction to Electronic Media	3
DEGR REQ	COMM 2303	Audio Production	3
DEGR REQ	COMM 1336	Video Production I	3
Second Semester			
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	4
DEGR REQ	COMM 1337	Video Production II	3
DEGR REQ	COMM 2324	Practicum in Electronic Media (Audio)	3
Second Year			
First Semester			
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		MATH 1332, 1342 or 1314	3
CORE REQ		Life and Physical Science Selection	4
CORE REQ		Creative Arts Selection	3
CORE REQ		Language/Philosophy/Culture Studies	3
Second Semester			
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Life and Physical Science Selection	4
CORE REQ		Social/Behavioral Science Selection	3
DEGR REQ		COMM 2327, 2331, 2332, 2339 or 2366	3
<b>Total Hours</b>			<b>60</b>

## Radio/Television Broadcasting-Audio Emphasis (RTA4) 090701

### Associate of Art Degree

First Semester			Credit
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ		Creative Arts Selection	3
DEGR REQ	COMM 1335	Introduction to Electronic Media	3
DEGR REQ	COMM 2303	Audio Production	3
Second Semester			
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	4
DEGR REQ	COMM 2332	Radio/TV News	3
DEGR REQ	COMM 2324	Practicum in Electronic Media (Audio)	3
Second Year			
First Semester			
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		MATH 1332, 1342 or 1314	3
CORE REQ		Life and Physical Science Selection	4
DEGR REQ	COMM 2331	Radio/TV Announcing	3
CORE REQ	GOVT 2306	Texas Government	3

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**Second Semester**

DEGR REQ	COMM 2327	Introduction to Advertising	3
CORE REQ		Language/Philosophy/Culture Studies	3
CORE REQ		Life and Physical Science Selection	4
CORE REQ		Social/Behavioral Science Selection	3
<b>Total Hours</b>			<b>60</b>

**Radio/Television Broadcasting-Video Production (RTV5) 090701  
Associate of Art Degree**

<b>First Semester</b>			<b>Credit</b>
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ		Creative Arts Selection	3
DEGR REQ	COMM 1335	Introduction to Electronic Media	3
DEGR REQ	COMM 1336	Video Production I	3

<b>Second Semester</b>			
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	4
DEGR REQ	COMM 1337	Video Production II	3
DEGR REQ	COMM 2332	Radio/TV News	3

**Second Year**

<b>First Semester</b>			
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		MATH 1332, 1342, or 1314	3
CORE REQ		Life and Physical Science Selection	4
DEGR REQ	COMM 2366	Introduction to Cinema	3
CORE REQ	GOVT 2306	Texas Government	3

<b>Second Semester</b>			
DEGR REQ	COMM 2327	Introduction to Advertising	3
CORE REQ		Language/Philosophy/Culture Studies	3
CORE REQ		Life and Physical Science Selection	4
CORE REQ		Social/Behavioral Science Selection	3
<b>Total Hours</b>			<b>60</b>

**Radio Broadcasting (RTBD5) 090701  
Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
COMM	1335	Introduction to Electronic Media	3
COMM	2303	Audio Production	3
COMM	2331	Radio/Television Announcing	3
ITSC	1309	Integrated Software Applications I	3
SPCH		SPCH 1315, 1321 or 2341	3

<b>Second Semester</b>			
COMM	2339	Writing for Radio, TV and Film	3
COMM	2324	Practicum in Electronic Media (Audio)	3
COMM	2327	Introduction to Advertising	3
COMM	2332	Radio/Television News	3
COMM	2389	Academic Cooperative	3
<b>Total Hours</b>			<b>30</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*

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**Television/Radio/Broadcasting (RTBC5) 090701**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
COMM	1335	Introduction to Electronic Media	3
COMM	2303	Audio Production	3
COMM	2331	Radio/Television Announcing	3
ARTS	2314	Design Communications II	3
COMM	1336	Video Production I	3
<b>Second Semester</b>			
COMM	2339	Writing for Radio, TV, and Film	3
COMM	2324	Practicum in Electronic Media (Audio)	3
COMM	2327	Introduction to Advertising	3
COMM	1337	Video Production II	3
COMM	2332	Radio/Television News	3
<b>Third Semester</b>			
ITSC	1309	Integrated Software Applications I	3
COMM	2389	Academic Cooperative	3
<b>Total Hours</b>			<b>36</b>

**TV News Videographer (RTNV) 090701**  
**Certificate of Completion**

<b>First Semester</b>			<b>Credit</b>
COMM	2332	Radio/Television News	3
COMM	1337	Video Production II	3
COMM	2331	Radio/Television Announcing	3
COMM	2303	Audio Production	3
ITNW	1337	Introduction to the Internet	3
ARTS	2314	Design Communications II	3
<b>Total Hours</b>			<b>18</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*



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# Science

The Associate of Science degrees offered through the Science Department at Central Texas College are designed for the student wishing to pursue a Baccalaureate degree. The Central Texas College curriculum is designed to maximize the transfer of lower level course work to the Baccalaureate degree granting public education institution within the State of Texas. Associate of Science degrees are available in Biology, Chemistry, Environmental Science and Geology. These degrees provide the foundation skills required of many diverse career fields from the health care industry to the emerging alternative energy area.

## Biology - Organismal (BIO14) 260101

### Associate of Science Degree

#### First Year

##### First Semester

			Credit
CORE REQ	MATH 1314	College Algebra	3
DEGR REQ	BIOL 1406	Biology for Science Majors I	4
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
DEGR REQ		KINE Physical Activity	1

##### Second Semester

DEGR REQ	BIOL 1407	Biology for Science Majors II	4
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Language/Philosophy/Culture Studies	4
DEGR REQ		KINE Physical Activity	1

#### Second Year

##### First Semester

CORE REQ		BIOL 1411 or ENVR 1401	4
CORE REQ	CHEM 1411	General Chemistry I	4
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		Social/Behavioral Science Selection	3

##### Second Semester

DEGR REQ	BIOL 2421	Microbio. for Science Majors	4
DEGR REQ	BIOL 1413	General Zoology	4
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Component Area Option	3
CORE REQ		Creative Arts Selection	3

##### Total Hours

60

## Biology - Human Biology (BIOL4) 260101

### Associate of Science Degree

#### First Year

##### First Semester

			Credit
CORE REQ	MATH 1314	College Algebra	3
DEGR REQ	BIOL 1406	Biology for Science Majors I	4
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
DEGR REQ		KINE Physical Activity	1

##### Second Semester

DEGR REQ	BIOL 1407	Biology for Science Majors II	4
CORE REQ	CHEM 1411	General Chemistry I	4
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3

##### Summer Semester

CORE REQ	CHEM 1412	General Chemistry II	4
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**Second Year****First Semester**

CORE REQ	BIOL 2421	Microbiology for Science Majors	4
DEGR REQ	CHEM 2423	Organic Chemistry I	4
CORE REQ		Social/Behavioral Science Selection	3
CORE REQ	GOVT 2305	Federal Government	3

**Second Semester**

DEGR REQ	CHEM 2425	Organic Chemistry II	4
CORE REQ		Language/Philosophy/Culture Studies	3
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Creative Arts Selection	3
DEG REQ		KINE Physical Activity	1
<b>Total Hours</b>			<b>60</b>

**Chemistry (CHEM4) 400501****Associate of Science Degree****First Year**

			<b>Credit</b>
CORE REQ	MATH 1314	College Algebra	3
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ	BIOL 1406	Biology for Science Maj. I	4
DEG REQ		KINE Physical Activity	1

**Second Semester**

DEGR REQ	CHEM 1411	General Chemistry I	4
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	3
CORE REQ		Social/Behavioral Science Selection	3
DEG REQ		KINE Physical Activity	1

**Summer Semester**

DEGR REQ	CHEM 1412	General Chemistry II	4
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**Second Year****First Semester**

DEGR REQ	CHEM 2423	Organic Chemistry I	4
CORE REQ	PHYS 1401	College Physics I	4
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		Language/Philosophy/Culture Studies	3

**Second Semester**

DEGR REQ	CHEM 2425	Organic Chemistry II	4
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ	SPCH 1315, 1318 or 1321		3
CORE REQ		Creative Arts Selection	3
<b>Total Hours</b>			<b>60</b>

**Environmental Science (ENV4) 030104****Associate of Science Degree****First Year**

			<b>Credit</b>
CORE REQ	MATH 1314	College Algebra	3
CORE REQ	ENVR 1401	Environmental Science	4
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
DEG REQ		KINE Physical Activity	1

**Second Semester**

DEGR REQ	CHEM 1411	General Chemistry I	4
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	3
DEG REQ		KINE Physical Activity	1

**Summer Semester**

DEGR REQ	CHEM 1412	General Chemistry II	4
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**Second Year****First Semester**

DEGR REQ	GEOL 1403	Physical Geology	4
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		Language/Philosophy/Culture Studies	3
DEGR REQ		BIOL 1406 or 1411 or PHYS 1401	4

**Second Semester**

CORE REQ		Life and Physical Science Select from BIOL 1407 or 1413 or PHYS 1402	4
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Creative Arts Selection	3
CORE REQ		Social/Behavioral Science Selection	3
<b>Total Hours</b>			<b>60</b>

**Geology (GEOL4) 400601****Associate of Science Degree****First Year****First Semester**

		<b>Credit</b>	
CORE REQ	MATH 1314	College Algebra	3
DEGR REQ	GEOL 1403	Physical Geology	4
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
DEG REQ		KINE Physical Activity (KINE 1110 recommended)	1

**Second Semester**

DEGR REQ	GEOL 1404	Historical Geology	4
CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
DEG REQ	CHEM 1411	General Chemistry I	4
DEG REQ		KINE Physical Activity (KINE 1111 recommended)	1

**Second Year****First Semester**

DEGR REQ		GEOL 1405 or ENVR 1401	4
DEGR REQ		BIOL 1406 or PHYS 1401	4
CORE REQ	GOVT 2305	Federal Government	3
CORE REQ		Creative Arts Selection	3

**Second Semester**

DEGR REQ		BIOL 1407, CHEM 1412 or PHYS 1402	4
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Language/Philosophy/Culture Studies	4
CORE REQ		Social/Behavioral Science Selection	3
CORE REQ		Component Area Option	3
<b>Total Hours</b>			<b>60</b>

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# Social Science

The Associate of Arts degree in Social Science is designed for the student wishing to pursue a Baccalaureate degree in one of the many liberal arts career fields. The Central Texas College curriculum is designed to maximize the transfer of lower level course work to the Baccalaureate degree granting public education institution within the State of Texas. The Associate of Arts in Social Science allows the student to choose instruction from a broad range of Social and Behavioral Science courses. This degree provides the foundation skills required of many diverse career fields from anthropology to sociology.

## Social Science (SOC4) 450101

### Associate of Arts Degree

#### First Year

##### First Semester

			<b>Credit</b>
CORE REQ	ENGL 1301	Composition I	3
CORE REQ	HIST 1301	United States History I	3
CORE REQ		Creative Arts Selection	3
CORE REQ		MATH 1332, 1342 or 1314	3
CORE REQ		Language/Philosophy/Culture Studies	3

##### Second Semester

CORE REQ		SPCH 1315, 1318 or 1321	3
CORE REQ	HIST 1302	United States History II	3
CORE REQ		Component Area Option	4
CORE REQ		Life and Physical Science Selection	4
CORE REQ	GOVT 2305	Federal Government	3

#### Second Year

##### First Semester

CORE REQ		Social/Behavioral Science Selection	3
CORE REQ	GOVT 2306	Texas Government	3
CORE REQ		Life and Physical Science Selection	4
DEGR REQ		Foreign Language	4

##### Second Semester

DEGR REQ		Social and Behavioral Science Selection	3
DEGR REQ		Social and Behavioral Science Selection	3
DEGR REQ		Foreign Language	4
DEGR REQ		KINE Physical Activity Course	1
DEGR REQ		Social and Behavioral Science Selection	3
<b>Total Hours</b>			<b>60</b>

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# Teacher Education

The Associate of Arts in Teaching degree is designed for the student wishing to transfer to a senior institution within the State of Texas to pursue Teaching Certification. The AAT curriculum is the foundation for most Bachelor level degrees.

## Teaching Certification (TEA5) 131210

### Associate of Arts in Teaching Degree

#### First Year

##### First Semester

			Credit
EDUC	1301	Intro to Teaching Profession**	3
or			
ELEC		Social/Behavioral Science Selection*	
MATH	1314	College Algebra*	3
ENGL	1301	Composition I*	3
ELEC		Life and Physical Science Selection*	4
PSYC	2301	General Psychology*	3

##### Second Semester

MATH	1350	Mathematics for Teachers I**	3
ELEC		Life and Physical Science Selection*	4
HIST	1301	United States History I*	3
SPCH		SPCH 1315, 1318 or 1321*	3
ENGL	1302	Composition II*	3

#### Second Year

##### First Semester

MATH	1351	Mathematics for Teachers II**	3
ENGL	2327	American Literature I	3
GOVT	2305	Federal Government*	3
HIST	1302	United States History II*	3
ELEC		Life and Physical Science Selection**	4

##### Second Semester

EDUC	2301	Introduction to Special Populations**	3
or			
TECA	1354	Child Growth and Development	
ELEC		Creative Arts Selection*	3
GOVT	2306	Texas Government*	3
ELEC		Component Area Option* (ENGL 2328 preferred)	3

##### Total Hours

**60**

\* Core Requirements

\*\* EC-6 Requirements, 4-8, EC-12 Special Education

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# Welding Technology

*This program is designed for students desiring to prepare themselves for a welding career. The program provides entry-level, industry-validated, "hands-on" instruction using current technologies and equipment. Studies include welding safety, tools and equipment, machine setup and operation, gas welding and cutting, plasma cutting, shielded metal arc welding, electrode identification and use, MIG welding, TIG welding, pipe welding, blueprint reading, weld testing, and welding fabrication. Welding positions 1G through 4G are covered in plate welding and positions 1G through 6G are covered in pipe welding. E6010 and E7018 electrodes are used. AWS Certification criteria are used throughout the program.*

*The certificates of completion within this program may be completed through the Vocational Skills Center. The Vocational Skills Center offers students instruction in a self-paced, open-entry delivery format. This instructional clock hour format provides flexibility to accommodate the special needs of the student.*

## **Welding (WLD15) 480508** **Associate of Applied Science Degree**

### **First Year**

#### **First Semester**

			<b>Credit</b>
WLDG	1323	Welding Safety Tools and Equipment	3
WLDG	1425	Introduction to Oxy-Fuel Welding and Cutting	4
WLDG	1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
MATH	1332	Contemporary Mathematics	3

#### **Second Semester**

WLDG	1457	Intermediate Shielded Metal Arc Welding (SMAW)	4
WLDG	2443	Advanced Shielded Metal Arc Welding (SMAW)	4
WLDG	1313	Introduction to Blueprint Reading for Welders	3
ENGL	1301	Composition I	3

### **Second Year**

#### **First Semester**

WLDG	1430	Introduction to Gas Metal Arc (GMAW) Welding	4
WLDG	1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG	1435	Introduction to Pipe Welding	4
GOVT	2305	Federal Government	3

#### **Second Semester**

WLDG	2453	Advanced Pipe Welding	4
SPCH		SPCH 1315 or 1321	3
WLDG	1312	Introduction to Flux Core Arc Welding (FCAW)	3
ELEC		Humanities/Fine Arts Selection	3
WLDG	2435	Advanced Layout and Fabrication	
or			
WLDG	2488	Internship	4

**Total Hours** **60**

## Welding Technology (WLD15) 480508 Certificate of Completion

			<b>Cr/Clock</b>
WLDG	1323	Welding Safety, Tools & Equipment	3/96
WLDG	1313	Introduction to Blueprint Reading for Welders	3/96
WLDG	1425	Introduction to Oxy-Fuel Welding and Cutting	4/96
WLDG	1428	Introduction to Shielded Metal Arc Welding (SMAW)	4/96
WLDG	1457	Intermediate Shielded Metal Arc Welding (SMAW)	4/96
WLDG	2443	Advanced Shielded Metal Arc Welding (SMAW)	4/144
WLDG	1430	Introduction to Gas Metal Arc (GMAW) Welding	4/96
WLDG	1312	Introduction to Flux Core Arc Welding (FCAW)	3/96
WLDG	1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4/96
WLDG	2451	Advanced Gas Tungsten Arc (GTAW) Welding	4/96
WLDG	2453	Advanced Pipe Welding	4/144
WLDG	1435	Introduction to Pipe Welding	4/96
WLDG	2435	Advanced Layout and Fabrication	4/96
or			
WLDG	2488	Internship	4/304
<b>Total Hours</b>			<b>49</b>
<b>Total Clock Hours</b>			<b>1344/1552</b>

## Farm and Ranch (WLFR3) 480508 Certificate of completion

			<b>Cr/Clock</b>
WLDG	1323	Welding Safety, Tools & Equipment	3/96
WLDG	1425	Introduction to Oxy-Fuel Welding and Cutting	4/96
WLDG	1428	Introduction to Shielded Metal Arc Welding (SMAW)	4/96
WLDG	1457	Intermediate Shielded Metal Arc Welding (SMAW)	4/96
WLDG	1430	Introduction to Gas Metal Arc (GMAW) Welding	4/96
<b>Total Hours</b>			<b>19</b>
<b>Total Clock Hours</b>			<b>480</b>

## Structural (WLS15) 480508 Certificate of Completion (Requires completion of WLFR3 certificate)

			<b>Cr/Clock</b>
WLDG	1313	Introduction to Blueprint Reading for Welders	3/96
WLDG	1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4/96
WLDG	2443	Advanced Shielded Metal Arc Welding (SMAW)	4/96
WLDG	1312	Introduction to Flux Core Arc Welding (FCAW)	3/96
WLDG	1435	Introduction to Pipe Welding	4/96
<b>Total Hours</b>			<b>18</b>
<b>Total Clock Hours</b>			<b>480</b>

## Industrial Welding Transition (WLTP) 480508 Certificate of Completion (Offered at the Fort Hood Campus only)

This certificate of completion will be offered under the Veterans Opportunity to Work Act (VOW) in conjunction with the welding industry and is designed for service members transitioning out of the military to gain job skills through instruction and hands-on labs with the goal of preparation for civilian employment.

			<b>Cr/Clock</b>
WLDG	1323	Welding Safety, Tools, and Equipment	3/96
WLDG	1434	Introduction to Gas Tungsten Arc Welding	3/96
WLDG	1457	Intermediate Shielded Metal Arc Welding	4/96
WLDG	2447	Advanced Gas Metal Arc Welding	4/96
WLDG	2453	Advanced Pipe Welding	4/144
<b>Total Hours</b>			<b>19</b>
<b>Total Clock Hours</b>			<b>528</b>

*Gainful Employment information on certificate programs can be found at [ctcd.edu/academics/gainful\\_employment/](http://ctcd.edu/academics/gainful_employment/)*